

REGIONAL STUDY IN BRITAIN DURING THE  
SEVENTEENTH CENTURY

"PAINTING THE LANDSCAPE":  
REGIONAL STUDY IN BRITAIN  
DURING THE SEVENTEENTH  
CENTURY

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## ABSTRACT

During the time between Queen Elizabeth I and the Restoration in particular, the foundations of English historical scholarship were laid and modern historical consciousness was born. Local pride was also manifested in historical-antiquarian-geographical accounts of the various regions of Britain, especially those based on county units. This type of study, often called "chorography" by contemporaries, centred on surveys on which local antiquities were often viewed first hand. It is generally regarded as having been introduced into England by John Leland during the latter part of the sixteenth century, reaching its climax with the publication of William Camden's monumental Britannia, first issued in 1586.

The present study examines the work of the chorographers who followed these two men (chronologically, at least), and who have been relatively neglected by subsequent historians and geographers. Here, the character of this literary form as a whole is for the first time set out in detail, i.e., its subject matter and parameters; thus also, many of the individual "regional studies" which are obscure or totally unknown to the scholars of today are examined with regard to the author's background, purpose, attitude, style, etc.

In the second half of the seventeenth century, regional study became considerably more realistic and practical than

that of the earlier workers in the field, usually concentrating on an examination of the natural--not "merely" civil--history of a region. The impetus for this is traced to the influence of the activities of the Royal Society, which largely followed the scientific dicta of Sir Francis Bacon.

#### ACKNOWLEDGMENTS: TEXTUAL AND APPRECIATORY

In tracing the history of British regional study during the seventeenth century, one theme predominates over all others. During this period Britons sought to uncover and to display to the whole world the natural and human resources of their native land. The work of foreigners is considered here only if, as in the cases of the "Ancient" geographers and Gerard Boate, their studies left a clear mark upon thought within the British Isles. Throughout the dissertation quotations have been introduced wherever possible in order to convey something of the atmosphere of the original works. Capitalization, punctuation and original spelling, therefore, have been retained in nearly all cases as in the original sources, except that the habit of lapsing into italics at random has often been ignored (unless clearly made for the sake of emphasis). Short titles only are provided for many of the primary sources, except where a fuller title is instructive or avoids confusion. I have also preserved the various spelling of particular words as well as names, by contemporaries, and by modern authors, without a needless sic, although I have my own preference. Nor have I adopted an ironclad rule on capitalization in general; sometimes one must use "Classical" while at other times "classical" seems more

appropriate. All objections will be referred to the estates of Richard Carew and Sir Thomas Browne, who wrote glowing prose while steadfastly avoiding any consistency whatsoever.

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## CHAPTER I

### INTRODUCTION

Great Brittaine shadow of the starry Sphears,  
Selfe-viewing Beauties true presented Grace  
In Thetis Myrrhous, on this Orbe appeares,  
In Worth excelling, as extoll'd in Place;  
Like the rich Croisade on th' Imperiall Ball,  
As much adorning as surmounting all.<sup>1</sup>

The seventeenth century in Britain was characterized by intense social activity and change. During the Tudor dynasty, with the disappearance of real feudalism, England emerged from the Reformation and the Renaissance as a modern state. By the seventeenth century Britons, especially Englishmen, were exploring their possessions and surroundings, asking questions, performing experiments and changing loyalties. It was a time when a mixture of ideas inherited from earlier generations had to be sorted out and evaluated. Then came the eighteenth century, with a spirit of assurance due to achievements in religious settlement, constitutional stability and scientific discovery: a spirit which came to fruition with the vast technological and social achievements of the following hundred years.

The seventeenth was the century when Englishmen were beginning to roam in an expanded world discovered by the travellers of the previous age, their imaginations



Fig. 1. The counties (shires) of England

stimulated by sources of historical and geographical information; by the works of Hakluyt, Purchas, Moryson and others. The maritime exploits of Drake and his fellow seamen and their relative success in the New World, against Spanish control of the high seas, helped initiate a new sense of national greatness. It was a century of transformation and excitement. The new reformed religion became established and developed in various sects. New forms of government were instituted at home. There arose the new philosophies of Descartes, Hobbes, Bacon, Spinoza and Locke. Modern medical practice began with Sydenham and Harvey. New forms of technology were developed. The heavens "expanded" through Galileo's "glass," at a time when mathematics was aiding in the revelation of an ordered universe. It truly was a century of experiment in the fields of colonization and travel, in politics and religion, in science and in technology. A. N. Whitehead, calling this the "century of genius," stated that:

A brief, and sufficiently accurate, description of the intellectual life of the European races during the succeeding two centuries and a quarter up to our own times, is that they have been living on the accumulated capital of ideas provided for them by the genius of the seventeenth century.<sup>2</sup>

David Douglas, meanwhile, believes that nothing was more remarkable in seventeenth-century England than the efflorescence of historical studies which then took place.<sup>3</sup> Historical research was under way, and many of the nobility

and landed gentry shared the enthusiasm and to a considerable extent the learning of the great scholars who adorned this century. The fire had been lit in the previous hundred years, mainly by the "chorographers"--John Leland, by William Camden, by William Lambarde and by others--men who studied the various regions of the British Isles, riding round the country in search of their material. As Douglas puts it, ". . . the shires of England were one after another receiving their historians."<sup>4</sup>

It was during the time between Queen Elizabeth and the Restoration in particular that the foundations of English historical scholarship were laid and modern historical consciousness was born.<sup>5</sup> In fact, during the last few decades of the sixteenth century historical and antiquarian study in England experienced a renaissance, and the regional writers played an active part in this.<sup>6</sup> Local pride found an expression in accounts of regions, particularly counties (shires), in which geography or topography was usually blended with history and antiquarianism. This type of study, often called "chorography" by contemporaries, centred on geographical surveys of particular areas or tours on which local antiquities were observed first hand. It is generally regarded as having been introduced into England by John Leland, coming into prominence during the latter part of the sixteenth century and reaching its climax with the publication of Camden's Britannia in 1586. The importance

of this book is well known, for it led many practitioners of the art of chorography in their work of describing a region and its peoples. Chorographers other than Leland and Camden have generally been overlooked by the geographers and historians of today. This group included William Lambarde, whose A Perambulation of Kent (1576) was the first chorography of a single county. Even so, it was Lambarde who saw the difficulties which would face anyone attempting to extend county description to the whole nation. He eventually realized that the environment of each place was best known by those who resided there, and hoped that in each shire at least one man would describe his own "country." To some extent, British regional study before 1650 was dominated by the response, occasionally deliberate, to Lambarde's argument. Lambarde was unable to fulfil his original goal of "perambulating" all of the counties. However, once Camden's Britannia was published, a national context for a concentration on localities was made available; now, "a man could attend to his own bailiwick."<sup>7</sup> The "literary call" was heard throughout Britain. The response, however, was not uniform; only in a few cases was the pattern of Camden's book followed closely.<sup>8</sup> For the most part the form adopted by the regional writers for their descriptions was one which they themselves created for their purpose. Little attempt was made at theoretical definition, at least not before the mid-seventeenth century. The

formulation was a practical one, composed of many disciplines, each of them chosen for its ability to illustrate an aspect of the British scene. This amalgam of social, topographical, and antiquarian description united into a universal descriptive genre--if anything so ebulliently discursive can properly be termed a genre. These regional studies, disparate as outwardly they may seem in form and intent, were in fact building blocks for a great edifice constructed by the efforts of the British scholars and meant to survive them as a monument to their civic spirit and to their scholarship.

The purpose of this dissertation is to explain the part played by Britons in such regional study between the late sixteenth and the late seventeenth centuries. The subject here is the body of regional description produced by scholars and others. Some of the material involved is relatively well known to students of the period, but most of it is not. There are monographs on particular authors, or treatment is given solely to individual productions; but in order to recognize the character of a literary form attention has to be given to the whole of it. The present study will do this, while examining what is meant by "regional study," i.e., by defining its subject matter and parameters. First, it is essential to establish the nature and extent of the tradition from which these works sprang. After an examination of the chorographic literature, an

attempt will be made to demonstrate that as most of the regional writers began applying newly-developed scientific methodologies to their own research, regional study in the second half of the seventeenth century became more realistic and practical, and usually focused on the natural history of a region. A secondary aim will be to explain and try and bridge the gap that seems to separate William Camden and his fellow chorographers from the "natural historians" of the period following 1650. No attempt is made here to comprehensively include the work of each and every man who was involved in this field. Such an effort is beyond the scope of the present study. The objective here, however, is to concentrate on the activities of enough of the workers who were involved in regional studies so as to provide a truly representative sampling of the genre.

Although the focus of this study is on England, where there was a concentration of activity with respect to the topic under consideration, the work of the men who were involved in this field in the other parts of the British Isles (including one study of Ireland) will not be overlooked. Many of these men, including Sir Robert Sibbald in Scotland, kept in direct contact with the activities of the investigators working in England. Within this larger framework, it is the purpose here to treat the regional studies individually. In the first place, this will allow for the identification of the individual titles and authors,

many of whom are either obscure or else totally unknown to modern researchers. Also, by examining the qualities of the individual works and, quite often, pointing out their virtues and shortcomings, one can better perceive which authors were more competent than others in their work. Each writer often had to develop his own particular subject matter, even if he had consciously followed the examples of his predecessors or contemporaries on a general level. It seems, therefore, that it is the degree of excellence of the author's presentation of his material that would enable one to decide whether or not a work of this sort may be termed literature.

In many cases the regional writers were not necessarily literary men and were not attempting to do much more than provide a record of events and information for some practical purpose. The literary qualities which found their way into these studies were sometimes purely unintentional and proceeded only from the writer's ability to express himself well. A notable exception to this rule is the work of Richard Carew, whose 1602 Survey of Cornwall has the earmarks of a classic of English literature. There is, then, a heterogeneous nature to regional study. In many instances there is only one major description of a particular region; and only a minority of men wrote of more than one region. But the variables of subject matter and of the author's background, purpose, attitude, and style make

each account distinctive, and also provide a basis for a consideration of each on an individual level. In this regard, an attempt has been made, however brief, to present the facts of the author's life that have some bearing on his manner of writing. These include such items as his place of birth and residence(s), his education, his occupation, his membership in societies, who his colleagues were, his interests, etc. The Dictionary of National Biography, individual biographies, and the regional studies themselves have been the main sources of information. Unfortunately, however, it has been impossible to gather material on men who have, apparently, left little biographical data for posterity. The purpose for which a particular regional study was written is occasionally discussed as a basis for understanding why the study contains or omits certain information, or why the contents are presented in a certain manner. These purposes all have a bearing on the final nature of the narrative. Many of these studies were written for the purpose of extolling the wonders or virtues of a particular region, or entire country; very few seem to have been written as records of fame. Although a fair number of these studies are for the most part based on personal investigation, there are other sources of material used by the authors which have to be considered, such as histories, publications of the Royal Society (after approximately 1660), the accounts of other writers, etc. Also, an

examination of the author's handling of his material in presenting his narrative is important, i.e., how he achieved a proper balance and emphasis when he has had to deal with various types of material, such as historical events and geographical information, civil history and natural history, and so on. Worth considering too is the kind of information given and whether or not it is usually included for that particular type or genre, i.e., for chorography or natural history. Whenever possible, comparisons between two or more studies by one man are made in order to emphasize the skill, or lack of skill, of that writer. Any religious, political or critical attitude displayed by an author is usually noted, as well as pronounced bias (such as William Lambarde's anti-Catholicism). Some works, because of their brevity or inadequate treatment of a region, exhibit few qualities worthy of note, and therefore these are dismissed with only a brief indication of the nature of their contents.

Before proceeding to a detailed examination of the tradition of regional writing, it will be helpful to define several key terms, such as "antiquarianism," "chorography," and "natural history." But first it should be mentioned that although the literature comprising the entire field of regional study may be considered to have generally consisted of chorographic descriptions up to about the mid-seventeenth century, a time when natural history started

becoming increasingly popular, writers in the three succeeding centuries have also referred to the literature constituting either or both of these two general types variously as "local history," "regional geography," or simply as "topographical-historical studies." Because of the diverse nature of the works making up the overall field, this lack of consistent terminology is understandable. Each of the above terms will be used at one point or another in the narrative; however, the essential distinction to keep in mind is the one between chorography and natural history, where a clear differentiation between the two types is possible. One other label that has been frequently applied is "county history." Since the majority of the works were based on the description of one or more counties, outnumbering by a considerable margin those centred on any other geographical or political unit, it is appropriate that the "county histories" will form the core material of this study.

Like so many other movements of the Renaissance, antiquarianism began in Italy. In the fifteenth century, Flavio Biondo made his antiquarian journeys; his Roma Instaurata (1446) was firmly based on archaeological remains of the Roman past. In this work Biondo surveyed, topographically, nearly the whole Italian peninsula, giving a concise geographical description of each area, of its extent, boundaries and towns, and he narrated the local

history of each region. He drew his information from the entire Latin literature of antiquity, not to mention all the chronicles, maps, inscriptions, histories and other antiquities he could uncover. In this he provided a method for future antiquaries to follow. The next century saw the movement expand throughout Europe.<sup>9</sup> During the sixteenth century, when antiquarian interest was thus already flourishing in Italy, antiquarian studies were coming into existence in England. It was a formal historical antiquarianism as distinct from dilettantism and the history of art. Interest in English antiquity in early Tudor times was stimulated by the search for documentary support in the political-theological strife which affected all Englishmen. By breaking with the Roman Catholic Church, England became isolated from much of Catholic Europe and, in time, from the Calvinist and Lutheran countries also. This isolation, as well as the desire to find precedents for the Anglican church, was responsible for the increased interest of the English in their past.<sup>10</sup> At the same time, the dissolution of the monasteries following the Henrician reform released large quantities of manuscript material from the monastic libraries--materials of use to historically conscious men.<sup>11</sup> In its early stages, the English antiquarian movement was chiefly manifested in the form of chorographic descriptions and in the copying of and general interest in public records. Many sixteenth-century antiquaries, however, also

participated in the support and defence of the backbone of the "Tudor myth," the historicity of King Arthur as an ancestor of Henry VII--along with defences of Geoffrey of Monmouth and varying degrees of support for legends of earlier British-Trojan heroes.<sup>12</sup> In the long run, Camden's solid exposition on early Britannia began to put the "Tudor myth," that of "Brutus," to rest.

Strictly-speaking the antiquaries, including the chorographers, were not simply "historians." Historians of the time relied primarily on written records such as chronicles; history was still narrative. The antiquary, on the other hand, utilized every piece of information he could collect. Literary sources, manuscripts, coins, relics, ruins and inscriptions were within his domain. The antiquaries rarely mentioned personalities or causes. An Italian Classical scholar has summed up the contribution of the antiquary in these terms:

The antiquary rescued history from the sceptics even though he did not write it. His preference for the original documents, his ingenuity in discovering forgeries, his skill in collecting and classifying the evidence, and above all, his unbounded love for learning are the antiquary's contribution to the "ethics" of the historian.<sup>13</sup>

The term "antiquarian" developed a slightly new meaning in the mid-seventeenth century. Before approximately 1650, it had acquired a wide usage. John Leland signed himself "Antiquarius" because he was responsible for investigating the manuscripts preserved in the libraries,

and because he planned to produce a map of England with an accompanying history and description. Laurence Nowell followed Leland; his antiquarian bent involved him in Saxon scholarship. Several antiquaries such as Archbishop Matthew Parker and Sir Robert Cotton were eager to establish a national library to contain ancient manuscripts. These antiquaries, and especially those involved in regional studies, exchanged information amongst themselves and yet "seem to have been intellectually isolated. They knew the Britannia and knew each other but were completely unaware of anything else. References to contemporary scholars such as Selden or Spelman or Ussher were rare."<sup>14</sup> This is true despite the existence, in fact, of an Elizabethan "College (or Society) of Antiquaries," founded about 1585 and lasting into the early seventeenth century.<sup>15</sup>

In general, the antiquaries of the post 1650 era, unlike their predecessors, formed a more cohesive unit. This applies especially to those involved in regional study. The centre of their research was at Oxford, where the library of Sir Thomas Bodley (opened in 1602) provided them with a great storehouse of sources; thus, many members of the Royal Society lived and worked here. Even figures outside of England, such as the natural historians Robert Sibbald in Scotland and Edward Lhuyd in Wales, kept up a steady correspondence with these "Oxford men." In the second half of the seventeenth century the antiquary might consider

himself as more of an interpretative and analytical historian than the men who came before. Many antiquarians were, therefore, found in scientific circles, including Dr. Robert Plot and John Aubrey. Stonehenge was investigated by men as different in orientation as the virtuoso Walter Charleton and the classically-inspired architect Inigo Jones. Furthermore, during this period the men who set out to describe the various regions of Britain began to exhibit a growing conception of the value of archaeological evidence as an autonomous province of historical enquiry. Camden and his followers, though they included written sources from archaeological contexts in their works, had little interest in purely archaeological evidence (treating such evidence in a perfunctory fashion). By the eighteenth century the antiquary totally lost his monopoly of non-literary sources.

As Momigliano noted:

The more the "learned" historians accepted the antiquarian's method of checking literary by non-literary evidence, the less the antiquarians could claim numismatics, diplomatics and epigraphy as their own subjects.<sup>16</sup>

"Chorography" is a key term which requires further explanation. Here the prefaces and introductions of the chorographic works are of assistance. They often set out an author's purpose and they contain methodological discussions which attempt to give some articulation and coherence to the form of the work. Many of these discussions are variations on the first chapter of Book One of Ptolemy's Geography, in

which the limits of geography are determined.<sup>17</sup> For example, in the first chapter of A Geographicall and Anthological description of all the Empires and Kingdomes (1607), entitled "De Geographia," Robert Stafford refers the reader to Ptolemy: "Geographie is an Imitation of the picture of the whole earth, with those things which are annexed thereunto. Ptolm. Lib. 1 cap. 1."<sup>18</sup> The chorographers were well aware that for Ptolemy, geography dealt with the description of the entire earth; its purpose was to fix positions and to reveal the relationships of places by means of parallels. Chorography, according to Ptolemy, differed from geography in that the former restricted itself to treating in detail smaller regions, not with size and position relative to other places. Its purpose was to render a "true likeness," and so required the talents of an "artist," one capable of "painting the landscape" in words. The chorographers also realized, therefore, that chorography was locally descriptive rather than universal. John Dee (1570) tells us that:

Chorographie seemeth to be an underling, and a twig, of Geographie: and yet nevertheless, is in practise manifolde, and in use very ample. This teacheth Analogically to describe a small portion or circuite of ground, with the contentes: not regarding what commensuration it hath to the whole, or any parcell, without it, contained. But in the territory or parcell of ground which it taketh in hand to make description of, it leaveth out (or undescribed) no notable, or adde thinges under ground, geveth some peculier marke: or warning: as of Mettall mines, Cole pittes, Stone quarries, etc. Thus, a Dukedom, a Shiere, a Lordship, or lease, may be described distinctly. But marveilous

Speculum Topographicum:  
OR THE  
Topographicall Glasse.

## Containing

## Topographicall Glasse.

The yse of the } Theodelitus.  
Plaine Table, and  
Circumferentor.

With many Rules of Geometry, Astronomy, Topography, perspective, and Hydrography.

Newly set forth by *Arthur Hopson Gentleman.*



Printed in London by N. O. for Simon Waterfor, dwelling at the  
signe of the Crowne in Paules Church-yard. 1611.

Fig. 2. Title page from Hopton's Speculum Topographicum

pleasant, and profitable it is, in the exhibiting to our eye, and commensuration, the plat of a Citie, Towne, Forte, or Pallace, in true Symmetry: not approaching to any of them: and out of Gunne shot, etc.<sup>19</sup>

Arthur Hopton gave this definition in the Introduction to his Topographicall Glass (1611):

Topographie (which some call Corography) is an Arte whereby wee be taught to describe any particular place, without relation unto the whole, delivering all things of note contained therein, as ports, villages, rivers, not omitting the smallest: also to describe the platforme of houses, buildings, monuments, or any such particular thing: and therefore a Topographicall description ought to expresse every particular, which caused me the rather to call this instrument the Topographicall Glass, as being most apt to describe any monument, Tower, or Castel, any Mannour, Country,<sup>20</sup> or Kingdome, so do we briefly describe England thus.

Most other writers offered similar definitions of chorography including William Pemble, Nathanael Carpenter, and Peter Heylyn. Both Pemble and Heylyn, however, made a further distinction between chorography and topography; in their estimation the former describes a larger unit than the latter, e.g., a province as opposed to a town.<sup>21</sup>

The men who investigated neither the town, nor the province, but the whole world, were known in Britain as the "cosmographers," not as geographers. Most of their information was second hand or derived from Classical authorities such as Tacitus or Pliny; there was little antiquarian motivation in their work. Cosmographers were involved in many facets of knowledge besides geography, especially in mathematics and cartography. According to Dee, cosmography "wholly and perfectly marketh description

of the heavon'ly and also the elemental part of the world."<sup>22</sup> Cosmographies were part of a tradition imported into England from Germany.<sup>23</sup> In England, it seems rare was the man who indulged in both cosmography and chorography.<sup>24</sup> Thomas Blundeville, in His Exercises (1594), clarified these two terms in the course of a dialogue with an inquisitive pupil:

What is Cosmography?

Cosmography is the description of the whole world, that is to say, of heaven and earth, and all that is contained therein. . . .

What is Chorographie?

It is the description of some particular place, as Region, Ile, citie, or such like portion of the earth severed by it selfe from the rest.<sup>25</sup>

It is clear that in many respects, in the period covered by the present study, "chorography" in fact had acquired the same meaning which modern dictionaries ascribe to "topography," i.e., "the description of a place or region." Many chorographers even used these two terms interchangeably, although most seemed to prefer use of the term "chorography" when applying it to their own work. But, while most modern dictionaries add that this type of description is usually accomplished by means of surveying instruments, maps and charts, the chorographers often did not have these at their disposal, or simply preferred not to use them. They invariably included a considerable amount of material which required no measuring or surveying device, and even the chorographers who were fully aware of the

Ptolemaic conception of chorography, in many instances, went beyond mere "artistic portrayal." They felt compelled to give at least a brief account of the "air" and climate, the population, animals and local customs, as well as a wealth of historical and etymological information. Sometimes the geographical, or topographical, perspective seemed to be lost in the detailed description, for instance, of the culture of a particular region, or of its political or social history. John Dee did not specifically mention recording local history (in his definition quoted above) since history is not a mathematical art and therefore of limited interest to him, but he would have almost certainly included historical information under the "contentes" of an area. However, it appears that at least some of the chorographers were more inclined to leave accounts of great figures and events to the actual "histories," to the "civil" historians, preferring to incorporate only material on past events of limited or local significance. Even William Camden, though he in fact did treat many significant historical events in his Britannia in detail, declined to pursue the subject of the murder of Edward II in Berkeley Castle, stating that: "I had rather you should seeke in Historians, than looke for it at my hands."<sup>26</sup> Regarding his work as a chorography rather than a history, Camden at another point, having noted Caesar's landing in Britain, did not speak of Caesar's further exploits, since "neither is it

any part of my meaning now to write an Historie, but a Topographie," using this term here as a synonym for chorography.<sup>27</sup> There was the question, then, of determining exactly what historical information should be included along with the topographical. William Lambarde in his Perambulation of Kent included a review of the various rulers and political divisions of the area he was describing, later stating:

Now, although it might heere seeme conuenient, before I passed any further, to disclose such memorable things, as have chanced during the reigne of all these fore-named Kings: yet for as much as my purpose specially is to write a Topographie, or description of places, and no Chronographie, or story of times (although I must now and then vse both, since the one can not fully bee performed without enterlacing the other) and for that also I shall have iust occasion hereafter in the particulars of this Shyre, to disclose many of the same. . . .<sup>28</sup>

It seems logical to conclude that Lambarde, Camden, and their fellow chorographers were primarily antiquaries because they mixed description of places and history together. The "topography" was often a history arranged on a place by place basis, with description of actual physical topography a secondary element. In fact, as the seventeenth century approached its third decade, it seems that in many chorographic accounts the topographical-historical element was largely superseded by a growing emphasis on the incorporation of genealogical and heraldic information. It was primarily in their concern for local history, the etymology of place names, and in the investigation of

monuments and ruins that chorographers correctly regarded themselves as antiquaries.

The intense chorographic activity which followed almost immediately upon Lambarde's and Camden's lead comprises a remarkably durable body of topographical-historical literature varying widely in quality. In many cases the later writers fell short of the standard of historical accuracy established by their two great predecessors, and tended to be more interested in land holdings than Roman ruins. Yet even the mediocre works had their value in the sense that most chorographers had to look at the inscriptions and monuments in their areas and copy them down; this personal investigation was as important to antiquarian method as the experiments of the regional writers of the second half of the seventeenth century would prove towards scientific methodology. Included among the earliest chorographies is William Smith's The Vale Royall of England, or Countie Palatine of Cheshire, published in 1585, nine years after the first edition of the Perambulation. Rice Merrick studied Glamorgan in its vale and upland regions (1578), while John Norden's Middlesex (1593) and his Hertfordshire (1598) were instalments of a projected "Speculum Britanniae." Very little escaped the eye of George Owen, whose Description of Penbrokshire (1603) is an unfailing source for the historical geography of that county. John Stow, who spoke of Lambarde as "my loving

friend," said that his initial impulse to write the famous Survey of London (1598) came from the Perambulation.<sup>29</sup> In Devon, one of the first concise regional divisions of an English county was made by Tristram Risdon. Robert Reyce was especially interested in social history while writing about Suffolk. Richard Carew's Survey of Cornwall (1602), with its mixture of local history and genealogy, folklore and natural history, as indicated, became established as one of the minor classics of the English language. Chorographies such as these, in a sense the forerunners of the Victoria County series, formed the essence of regional description in the late sixteenth and the early to mid-seventeenth centuries. In many respects they were histories of landowners, property, or institutions, as well as being outstanding examples of topographical study. As local history, a chorographic work could:

[Unfold] the rolls of family attachment, family possessions, and family distinctions. It leads you to the venerable pile of ruin, ivyed with time, and verging to destruction. An awful picture for declining years! It shows you the beautiful retreats of the rich and noble, in which are deposited the learning and labours of past ages. It accounts for the remnants of antiquities found among us; and, in numberless instances, it expands the mind, amuses the understanding, and is often useful in the division of property. In fine, its displays [of] the natural productions of the earth, and of the arts, are given for the amusement and utility of the present and after times.<sup>30</sup>

During the first forty years of the seventeenth century the traditional forms of chorography continued to be

employed, and many new places were written about. Then, with the outbreak of the English Civil War, antiquarian scholars found their working conditions disrupted to the point where very few new chorographies were being produced. By this time also the original College of Antiquaries had been disbanded, thus further reducing the opportunity for chorographers to meet and to exchange new ideas. The end result of these debilitating circumstances was that men no longer appeared interested in attempting to overcome the obstacles to the research and writing of chorographies. Soon a new generation and type of regional study was able to largely replace chorography as a viable alternate means of describing a region; when perhaps only one chorographic work was issued that made a significant contribution to the field of regional study as a whole:

This summer [1656] came to Oxon The Antiquities of Warwickshire, etc. written by William Dugdale, and adorn'd with many cuts. This being accounted the best book of its kind that hitherto was made extant, my pen cannot enough describe how A. Wood's tender affections and insatiable desire of knowledge were ravish'd and melted downe by the reading of that book.<sup>31</sup>

With these words Anthony à Wood greeted the appearance of Dugdale's Antiquities of Warwickshire (1656), a large illustrated folio of more than eight hundred pages. In its prodigious scholarship, perhaps unprecedented not only within the context of regional study but also within the other fields of seventeenth-century study, Warwickshire set a standard of learning for scholars who came later.

However, because in most other respects this work still fell into the chorographic mode, its value to later regional study was limited.

The major development in regional study came in a substantially different form. Other works, particularly after the Restoration, gave much greater attention to natural phenomena than did the chorographic writings. John Aubrey, for example, emulating only in part Dugdale's method, began to compile in 1659 a study of Wiltshire which he did not complete until 1685. Aubrey, in studying his native Wiltshire, ignored the conventions followed by generations of chorographers. His interest in "a history of the weather" was one departure; his plan for a soil map of the whole of England was another. More important, Aubrey wanted to draw a county land use map--his marginal note for this was the earliest record for such a design. Regional study was used here in the new context of soil or "land" studies carried out by many Fellows of the Royal Society after 1660. Others also became active in this field. Dr. Robert Plot, for example, the first Keeper of the Ashmolean Museum at Oxford began collecting material for his Natural History of Oxfordshire (1686). Plot, who had exchanged information with Aubrey, was also less concerned in both these works with chronicles and the antiquities of the counties than with natural history. From about 1650, or at least 1660, then, these experimentalists brought a new

scientific attitude towards regional study. Whether actually involved in local history or in other fields of learning, men such as Aubrey, Plot, Robert Boyle, Joshua Childrey, Martin Lister and others were assessing more methodically the natural conditions of their environment, while at the same time encouraging the systematic observation of a wide range of facts. Exact knowledge of this kind was known to be useful in approaching a country's resources, mineral or agrarian, actual or potential.

Natural history represented the primary method of inquiry in the study of the various regions of the British Isles during the second half of the seventeenth century. Although chorographic writing did not totally disappear, men were now less inclined to incorporate topography, civil history, genealogy and heraldry--subjects common to chorography--in their regional studies. The proper method of investigating a region, they believed, was to focus in on the examination of its natural history; that is to say, the climate, the water systems, geology, and the other physical properties of the earth. Many members of this new generation of regional writers also undertook the scientific study of fossils, ancient artefacts, ruins, and excavation sites, thus being counted amongst the founders of geology, palaeontology and archaeology, respectively. In utilizing methodologies that were either unknown to the earlier chorographers, or disregarded by them, these men practised

what might properly be called a "scientific antiquarianism," in addition to their work as natural historians. Men were now conscious of the similarities between fragments of the natural and the man-made past. They began to believe that shells and other natural forms were the "Medals, Urnes, or Monuments of Nature."<sup>32</sup> While some chorographers, including Camden and Carew, did in fact take some notice of certain natural phenomena such as geomorphology and the flora and fauna of a region, these topics took a back seat in their work to civil history. The reverse became the case in the second half of the seventeenth century, when natural history became an integral rather than supplementary part of regional work. While many chorographers gave scant or no notice at all to the natural phenomena, many regional writers, especially those who produced their studies in the late stages of the century, preferred to omit civil history from their books altogether. There was, then, this question of balance. These later works reflected the speculation and interests of the age of Charles II, and of the Royal Society, when natural phenomena, antiquities, and, to a lesser degree, freaks and curiosities were of greater interest than genealogy or the description of historical events and figures, or even the topography of a region. So, by the eighteenth century, Buffon could state:

Just as in civil history we consult warrants, study medallions, and decipher ancient inscriptions, in order to determine the epochs of the human revolutions and fix

the dates of moral events, so in natural history one must dig through the archives of the world, extract ancient relics from the bowels of the earth, gather together their fragments, and assemble again in a single body of proofs all those indications of the physical changes which can carry us back to the different Ages of Nature.<sup>33</sup>

In the opening remark to his essay on John Aubrey, Lytton Strachey observed that the foundation of the Royal Society marked "The beginning of the modern world."<sup>34</sup> Although the origins of modern science (and thus of the modern world) go back farther than Strachey suggested, the Royal Society, which required its members to use "a close, naked, natural way of speaking; positive expressions; clear senses; a native easiness," in its aim of improving natural knowledge, did much to set the foundations of the empirical method of modern science. It gave English intellectual life of the latter seventeenth century a vital role in the transition to the modern world.<sup>35</sup> The Royal Society fervently promoted the ideas of Sir Francis Bacon. Bacon was amongst the first to place natural history on a footing which was, at the very least, equal to that of civil history. In his view natural history, when it had not been totally neglected, had included under that heading a mountain of fables and other unrelated material. In this respect, Bacon aimed at a purification of the field rather than the creation of a new field of knowledge, wanting to restore it to the high level it had achieved--in his view--in the work of Pliny and the other "Ancients."

Although this particular belief that the Ancients could provide a model for tomorrow generally gained little support in scientific circles, Bacon's conviction that knowledge could be advanced by observing the lessons of the past indicates that a seventeenth-century investigator could steer a course between an admiration of antiquity and an appetite for novelty.<sup>36</sup>

In the sixteenth century a limited number of works were produced which may be considered to have contained elements of early natural history. Thomas Hill's A Contemplation of Mysteries (1571), although it was not based on any geographical framework, did include natural phenomena. Accounts of the properties of comets, lakes, wells, rainbows, winds, clouds, and earthquakes were provided by Hill. Furthermore, its resemblance to later natural histories is enhanced by another item they shared in common, the tendency to form conjectural opinion about strange and apparently unexplainable occurrences. At one point, for example, Hill stated that:

In the yeare of our Lorde. 1553, was heard a woeful crye, Saying woe, woe, twise together: there was heard also the sounde of Belles, and the noyse of Trumpets: and the same tyme there happened at Duryngia, that the trees, and herbs, sweate bloud. . . .<sup>37</sup>

William Bourne's A Booke called the Treasure for traveilers (1578), a manual for the use of voyagers and wayfarers, provides another example. Bourne covers a number of topics related to natural history, such as "the naturall causes of

Sands in the Sea and rivers, and the cause of marish ground, and Cliffes by the sea Coasts, and rockes in the Sea." He also noted fluvial erosion along river banks, commented upon the effects of earthquakes, and speculated as to the origin of sea cliffs:

My opinion is thys, as the age of the worlde is of no small tyme, so in process of tyme the often sufferynges of the bellowes of the Seas have beaten away the feete of those hills, that are by the sea coastes. And so undermining it, although it were of harde stone, yet the waygt of that which was undermined hanging over, in rayny wether, or after great frost, must needes fall downe into the Sea. And then that soyle or substaunce that fell downe, in process of time was beaten or washed away agayne, by the often soussing of the bellowes of the sea in the time of great wyndes and stormes. And then the stuff so fallen down, being washed and consumed away, the sea doth begin to doth begin to undermine it again, by little and lytle.<sup>38</sup>

Despite such attempts at natural history, however, the understanding of sixteenth- and early seventeenth-century writers of natural processes was fairly elementary. The men writing during the Restoration and later were not necessarily familiar with Hill, Bourne, or with any similar proto-natural historians; for the most part they were not. When men set out to describe the natural history of a region they were influenced not so much by the scant, almost non-existent literature on the subject (at least in English), as they were by the activities of the Royal Society.<sup>39</sup>

The Royal Society encouraged field studies, which it supplemented with the analysis of responses to widely disseminated "queries." This led to the purposeful

documentation of the natural history of the British Isles. The same technique was being consolidated even into the eighteenth century by the newly-formed Society of Antiquaries and applied to parish units. (Parish topographies, however, despite the pioneer work of White Kennett, did not reach the standard of county descriptions).<sup>40</sup> Therefore, the activities of the Royal Society were "far closer to modern fieldwork" than that of Camden and his earlier followers.<sup>41</sup> Yet, the overall antiquarian thought of the late seventeenth century did inherit earlier traditions, as pointed out by at least two writers.<sup>42</sup> Most of these traditions, as will be shown, were modified by the Royal Society through its promotion of newly-developing scientific methods.

It was Bacon's Novum Organum which clearly demonstrated that science and knowledge should not from now on be considered as synonymous. "Science" now began to represent a particular kind of knowledge; as Sydney Ross states:

. . . whether that knowledge is to be derived, as Aristotle had taught, by straight deductive logic, with the geometry of Euclid as a model; or whether, as Bacon was the first to apprehend, it must gradually evolve, using observation and experimentation, by refining and clarifying . . . truths,<sup>43</sup>

As the seventeenth century progressed, regional study increasingly became the domain of men who were able to discard the "unmodern," pre-scientific Ptolemaic system that

had so dominated Western thought through the greater part of the Renaissance. However, especially during the early years of the Royal Society, men such as John Aubrey could still equate science with all knowledge, comprising not only the natural sciences but also material remains such as ruined monasteries or megalithic sites. Therefore, these men could be considered as polymaths, interested not only in natural science but also in antiquities as well as in everything else of human interest. For this reason the term "virtuosi" is as applicable to them as "scientists." It was only after Isaac Newton became the Society's President in 1703 that there occurred a clear-cut distinction between the Arts and Sciences, when a man of science would refer to himself as an "experimental" or "natural" scientist, when science--or, as it was up to then sometimes referred to as "natural philosophy"--became separated from philosophy per se: "In the Seventeenth Century . . . [the] Royal Society was in no sense a professional organization in its origins but rather a gentleman's club for the discussion of scientific matters with the whole world as its field of activity."<sup>44</sup>

Seventeenth-century British regional studies have never received proper literary recognition as a group. As mentioned, there have been studies of segments of regional study and monographs on single works, but even then not usually in detail. What has been done does not reveal the

relationships, or even the existence of the general type. There have not, apparently, been enough workers active to establish the subject on firm foundations. The art of describing a region, as it was practised in Britain, is therefore one deserving closer attention. It is not difficult to speculate as to why this situation exists. In the first place, most modern writers are unaware of the fact that such studies form a natural unit for examination, even though they fall into two distinct genres. But, as this dissertation will demonstrate, there exists a firm basis for treating these regional works within the context of the century as a whole, there being a definite and distinct linear connection between chorography on the one hand and natural history on the other (even if one overlooks the fact that chorography by itself, to one degree or another, was a product of the entire period under investigation). Just as one has to look far in advance of the great flowering of the 1660s and 1670s in order to properly explain any facet of the scientific revolution, so too must one trace the intellectual origins of British regional study in the second half of the seventeenth century to its origin in chorography. The technique of the chorographers--that of travel and first hand observation--was eminently fruitful when expanded and applied to natural history. Also, the entire field straddles a sort of "twilight zone" between historical and geographical scholarship. Many historians

who do take notice of regional studies, it is evident, view them as belonging to the investigative jurisdiction of the regional geographer, and vice versa. Or, within the historical profession itself the Elizabethan historian, for example, might not even want to consider the regional studies that were produced in the mid- or late seventeenth century, while the Stuart historian might be reluctant to examine works that were done outside of his own specific period of specialization. It seems that travel diaries such as voyage literature, road-books, general geographies, cosmographies, guides to foreign countries, and even mere surveying reports, have commanded greater attention.

The intellectual background of the Elizabethan antiquaries has been discussed by Fussner, Levy, and Kendrick. Even these writers, however, tend to overlook the minor figures, and devote little attention to the even smaller field of regional study.<sup>45</sup> This is not surprising in the light of the fact that overall the scholarship about historiography in Britain during the period under study is minuscule.<sup>46</sup> Standard works such as J. W. Thompson's A History of Historical Writing, due to their broad range, treat English historiography of the sixteenth and seventeenth centuries either in general or disparaging terms.<sup>47</sup> The historians of historiography seem to be more interested in assessing a history's veracity, its value as a source for a history book to be written in the present, than

as a manifestation of an "outmoded" idea of history. Kendrick perhaps comes nearest to accurately placing topography in its proper setting among antiquarian studies in his work on British Antiquity. He devotes one chapter to Leland (Chap. IV) and one to prose topographies, especially Camden's (Chap. VIII). However, topography is only a secondary theme of this book and therefore the minor chorographers are given very little attention here. A. L. Rowse, in The England of Elizabeth, briefly surveys the work of several important topographers and mapmakers, cutting his work off at 1603.<sup>48</sup> English Scholars, 1660-1730 by David C. Douglas, traces the growth and achievements of Anglo-Saxon scholarship in the Restoration and in the eighteenth century, yet Douglas basically overlooks the work done in the field of natural history.<sup>49</sup>

The history of British geography, or aspects of it, has not fared well either. The only major attempt to present a composite history of the geography of Tudor and Stuart times is that of E. G. R. Taylor, in the 1930s.<sup>50</sup> Taylor's investigation ranged over the entire gamut of geographical literature, from the studies stimulated by the voyages of discovery, to mathematical geography, economic geography, the descriptions written by travellers, and so on. Chapter IV examines "Regional Geography, or Chorography: 1583-1625," but here again the treatment is of a cursory nature. This work does, however, provide a valuable

bibliography which attempts a complete survey of English contributions to geography down to 1650. Unfortunately, Taylor does not indicate which works listed in the bibliography are still extant, nor their locations.

The material covering the period after 1650 is even less promising. Except for Sir William Dugdale, the men involved in regional study after this date are usually given brief notice, and that only for their specific involvement in the various fields of science, or for their association with the more famous figures of the time--not for their regional studies. A notable exception to this rule is Michael Hunter's John Aubrey and The Realm of Learning, in which Hunter discusses "Aubrey's Antiquarian Method" and "Natural History and Antiquities." David Elliston Allen's The Naturalist in Britain, meanwhile, very briefly covers some of the figures examined in this dissertation, embracing a broad spectrum of the natural history and environmental science, but here geography, topography, and archaeology are squeezed to the sidelines. In like manner the study by F. D. and J. F. M. Hoeniger is but a meagre pamphlet on the growth of natural history in Stuart England, which primarily covers the pre-Royal Society period and makes no mention of the contributions to the field by the regional writers.<sup>51</sup>

In general, then, except for short articles on the well known figures, particularly Leland, Camden, and Dugdale, the only other secondary sources of information for

a student of this field are studies of cartography and cartographers, or works dealing with the early history of anthropology.<sup>52</sup> Often biographical data can be gathered from the Dictionary of National Biography or from the works of sixteenth- or seventeenth-century figures who wrote about their contemporaries; Anthony à Wood's Athenae Oxonienses, for example, remains an invaluable source.<sup>53</sup> There exists an even more startling paucity of material when one considers the work done on the areas of Britain other than England itself. Although Scotland, Wales, and Ireland have longer traditions in regional geography and history than is generally realized, the work which has been accomplished to date is patchy in treatment.<sup>54</sup> Chorography and natural history, in fact, appear to have gained more attention from the eighteenth- and nineteenth-century county historians and topographers than from recent historians and geographers. Richard Gough, for example, was an eighteenth-century country gentleman who, after going to Corpus Christi College, Cambridge, devoted his time to antiquarian travels in England. He is remembered today for his vast collection of topographical material--maps, plans, notes, drawings--which forms, in the Bodleian Library, Oxford, a source of valuable information.<sup>55</sup>

According to Glyn Daniel there is, then, no general account of the English antiquaries, and this is doubly true of the regional writers, who composed a major segment of

the antiquarian school of thought in seventeenth-century Britain.<sup>56</sup> Perhaps the scholars of today regard these early regional studies as consisting of works which are the dullest of compilations at best. However, if properly written, these can become:

. . . works of entertainment, of importance, and universality. They may be made the vehicles of much general intelligence, and of such as is interesting to every reader of a liberal curiosity. What is local is often national. Books of this kind, in the hands of a sensible and judicious examiner, are the histories of ancient manners, arts, and customs.<sup>57</sup>

## NOTES: CHAPTER 1

<sup>1</sup>Richard Zouche, The Dove, or passages of Cosmography (London, 1613), no pagination.

<sup>2</sup>A. N. Whitehead, Science and the Modern World (London, 1927), 49.

<sup>3</sup>David C. Douglas, English Scholars, 1660-1730, 2d. ed., rev. (London, 1951). <sup>4</sup>Ibid., 32.

<sup>5</sup>On sixteenth- and seventeenth-century historical scholarship, see F. Smith Fussner, The Historical Revolution (London, 1961); Levi Fox, ed., English Historical Scholarship in the Sixteenth and Seventeenth Centuries (London, 1956); F. J. Levy, Tudor Historical Thought (San Marino, 1967); W. R. Trimble, "Early Tudor Historiography, 1485-1549," Journal of the History of Ideas 11 (1950):30-41

<sup>6</sup>E. G. R. Taylor, Late Tudor and Early Stuart Geography (London, 1934), chap. iv.

<sup>7</sup>Levy, Historical Thought, 159. <sup>8</sup>Ibid., 160.

<sup>9</sup>Biondo is discussed in Denys Hay, "Flavio Biondo and the Middle Ages," Proceedings of the British Academy 45 (1959):97-128. Other European figures, besides John Leland, who displayed an interest in antiquarian study were Konrad Celtis and Beatus Rhenanus in Germany, Guillaume Budé in France, and John Bale in England. Many important workers in this field are given attention by Roberto Weiss, in The Renaissance Discovery of Classical Antiquity (Oxford, 1969).

<sup>10</sup>This point is made by J. R. Hale, ed., The Evolution of British Historiography: From Bacon to Namier (Cleveland, 1964), 11.

<sup>11</sup>Kenneth Clark has written that as the monasteries were destroyed and libraries disposed of, the antiquaries "were moved to perpetuate their vanishing glories," writing with a patriotic fervour and boasting about "their country's treasures as poets did her wars"; Kenneth Clark, The Gothic Revival (London, 1928), 19-20.

<sup>12</sup>The intellectual background of the Elizabethan antiquaries is discussed by T. D. Kendrick, British Antiquity (London, 1950).

<sup>13</sup>A. Momigliano, "Ancient History and the Historian," Journal of the Warburg Courtauld Institutes 13 (1950):313.

<sup>14</sup>Levy, Historical Thought, 161.

<sup>15</sup>Joan Evans, A History of the Society of Antiquaries, (Oxford, 1956), 9.

<sup>16</sup>Momigliano, "Ancient History," 311.

<sup>17</sup>Claudius Ptolemy, The Geography of Claudius Ptolemy, trans. and ed. Edward Luther Stevenson (New York, 1932), 1.

<sup>18</sup>Robert Stafforde, A Geographicall and Anthological description of all the Empires and Kingdomes (London, 1607), 1.

<sup>19</sup> John Dee, "The Mathematical Preface" to The Elements of Geometrie of Euclid of Megara, London, BL, Sloane MS, 888, fol. A4. Dee is quoted in William Bourne, A Booke called the Treasure for traveilers (London, 1578), preface.

<sup>20</sup> Arthur Hopton, Speculum Topographicum: or the Topographicall Glasse (London, 1611), B.

<sup>21</sup> William Pemble, A Briefe Introduction to Geography (Oxford, 1630), 1; Peter Heylyn, Microcosmus; a little description of the great world (London, 1621), 10; Nathanael Carpenter, Geography delineated forth in two bookes, 2d. ed. (Oxford, 1635), bk. 2, 2.

<sup>22</sup> Dee, "Mathematical Preface," 73.

<sup>23</sup> The main authority on sixteenth-century German cosmography is Gerald Strauss, Sixteenth-Century Germany: Its Topography and Topographers (Madison, 1959).

<sup>24</sup> Cosmography was introduced to England by Richard Eden's A Treatyse of the newe India . . . after the description of Sebastian Munster in his boke of universall Cosmographie (London, 1553); followed by William Cunningham's Cosmographical Glasse (London, 1559).

<sup>25</sup> Thomas Blundeville, His Exercises (London, 1594), 134.

<sup>26</sup> See William Camden, Britannia, trans. and ed. Philemon Holland (London, 1610), 363. <sup>27</sup> Ibid., 343.

<sup>28</sup> William Lambarde, A Perambulation of Kent, 2d. ed., rev. (London, 1596), Cl.

<sup>29</sup> John Stow, A Survey of London, ed. C. L. Kingsford, 2 vols. (Oxford, 1908), 1:xcvii; 2:253.

<sup>30</sup> John Throsby, Leicester Views (London, 1790), supp. vol.:5.

<sup>31</sup> Andrew Clark, ed., The Life and Times of Anthony Wood, 5 vols. (Oxford, 1891-1900), 1(1891):209.

<sup>32</sup> Richard Waller, ed., The Posthumous Works of Robert Hooke (London, 1705), 335.

<sup>33</sup> Quoted in Stephan Toulmin and June Goodfield, The Discovery of Time (London, 1965), 144.

<sup>34</sup> Lytton Strachey, Portraits in Miniature (London, 1931), 19.

<sup>35</sup> Herbert Butterfield, The Origins of Modern Science, rev. ed. (London, 1957); Margery Purver, The Royal Society: Concept and Creation, new ed. (London, 1967), contain useful information on this topic.

<sup>36</sup> See Sir Francis Bacon, The Works of Francis Bacon, eds. James Spedding; Robert L. Ellis; and Douglas D. Heath, 14 vols. (London, 1857-74; reprint ed., New York, 1968), 4:69.

<sup>37</sup> Thomas Hill, A Contemplation of Mysteries (London, 1571), 9.

<sup>38</sup> Bourne, Treasure, bk. 5: chap. 3.

<sup>39</sup> The Royal Society obtained its Charter in 1662.

<sup>40</sup> White Kennett, Parochial Antiquities Attempted in the History of Ambrosden, Burcester, and other Adjacent parts in the Counties of Oxford and Bucks (Oxford, 1695).

<sup>41</sup> Evans, Society of Antiquaries, 29.

<sup>42</sup> Ibid.; Stuart Piggott, William Stukeley: An Eighteenth-Century Antiquary (Oxford, 1950), 1-17 passim.

<sup>43</sup> Sydney Ross, "Scientist: The Story of a Word," Annals of Science 18 (1962):67. Ross says that the term "scientificus," as pertaining to demonstrable knowledge or science, only came into English as late as 1600. According to him also (ibid., 71), the name "scientist" was first propounded in the Quarterly Review for March, 1834, by an anonymous reviewer. Also see Grant McColley, "Bishop John Wilkins and the Definition of Science," Isis 27 (1937):261-263, which contains some early definitions of "Science" by Wilkins and others.

<sup>44</sup> Dorothy Stimson, "Amateurs of Science in 17th Century England," Isis 31 (1939):40.

<sup>45</sup> Fussner, Historical Revolution, provides a typical example; he allows only about ten pages to what he describes as "Territorial History." In a footnote in his essay "Ancients, Moderns, and History: The Continuity of English Historical Writing in the Later Seventeenth Century," in Paul J. Korshin, ed., Studies in Change and Revolution (Menston, 1972), Joseph M. Levine has noted that:

"Unfortunately, we still lack particular studies [even] of some of the major figures like Leland and Camden" (page 70).

<sup>46</sup> Sir Maurice Powicke, "The Value of Sixteenth- and Seventeenth-Century Scholarship to Modern Historical Research," in English Historical Scholarship, ed. Fox, 116, states that the study of the subject of historical investigation in England between the time of Camden and the days of Queen Anne has "hardly begun." Godfrey Davies, writing over fifty years ago, also noted that the historiography of the seventeenth century has never been treated as a whole; Bibliography of British History: Stuart Period, 1603-1714 (Oxford, 1928), 1. With few exceptions this statement is still valid today.

<sup>47</sup> J. W. Thompson, A History of Historical Writing, 2 vols. (New York, 1942); also see Kendrick, British Antiquity.

<sup>48</sup> A. L. Rowse, The England of Elizabeth: The Structure of Society (New York, 1950), 31-65.

<sup>49</sup> Douglas, English Scholars.

<sup>50</sup> Taylor, Stuart Geography. John Kirkland Wright, "A Plea for the History of Geography," Isis 8 (1925):480, 482, had this to say about the state of the history of geography in America, words which are still relevant today:

Before the nineteenth century examination into the history of geography was devoted almost exclusively to the regional phases of the subject: to voyages and explorations; and indeed at all times this has been by far the most intensively cultivated portion of the

field. The development of modern scientific geography in Europe, however, has been accompanied by a growth of interest on the part of a relatively few students in the evolution of geographical theories and methods: in the history, that is, of mathematical and physical geography, cartography, and bio- and anthropogeography. . . .

Until the last few years our [American] geographers have devoted less attention than foreign students to the human and historical phases of their subject and almost none to its history.

51 Michael Hunter, John Aubrey and the Realm of Learning (London, 1975); David Elliston Allen, The Naturalist in Britain (London, 1976); F. D. Hoeniger, and J. F. M. Hoeniger, The Growth of Natural History in Stuart England from Gerard to the Royal Society (Charlottesville, 1969).

52 Several scholars, including H. G. Fordham, Some Notable Surveyors and Mapmakers of the Sixteenth, Seventeenth, and Eighteenth Centuries and their Work (Cambridge, 1929), and Edward Lynam, The Mapmaker's Art (London, 1953), have made valuable studies of mapmaking techniques and of mapmakers. Works on the history of cartography contain useful references, but on the whole they do not trace the evolution in the field of regional study which is described in this dissertation, i.e., the transition from chorography to natural history. Their emphasis is primarily on the actual cartographic element, including the science of surveying. Fordham's study, one of the major ones in the field, is outdated and pays scant

attention to the work done in Britain during the early modern era. The early history of anthropology, meanwhile, is discussed in John Howard Rowe, "The Renaissance Foundations of Anthropology," American Anthropologist 67 (1965):1-20; and Margaret T. Hodgen, Early Anthropology in the Sixteenth and Seventeenth Centuries (Philadelphia, 1964).

<sup>53</sup> Anthony à Wood, Athenae Oxonienses, 2 vols. (London, 1691-92).

<sup>54</sup> The few works which bear any importance include H. F. Paget, ed., The Early Maps of Scotland, 3d. ed., rev. (Edinburgh, 1973); Sir Arthur Mitchell and James Tosach Clark, eds., Geographical Collections Relating to Scotland, made by Walter Macfarlane, 3 vols. (Edinburgh, 1907-09); Frank Emery, Edward Lhuyd (Cardiff, 1971).

<sup>55</sup> Richard Gough, British Topography, 2 vols. (London, 1780).

<sup>56</sup> Glyn Daniel, A Hundred and Fifty Years of Archaeology (London, 1950), 20.

<sup>57</sup> Thomas Warton, as quoted in J. E. Jackson, The History of the Parish of Grittleton, in the County of Wiltshire (London, 1843), xv. The reference here is specifically to county histories.

## CHAPTER II

### THE NATIVE TRADITION

That I would restore antiquity to Britain, and Britain to his antiquity . . . that I would renew ancientrie, enlighten obscurity, clear<sup>1</sup> doubts, and recall home Verity by way of recovery.

It was for the above reason that William Camden, and others like him, undertook the study of Britain or its various regions in the sixteenth century. Because these sixteenth-century figures established the pattern for regional study in the next century, it is necessary to examine the extent and the quality of the chorographic literature before 1600, and to understand the milieu in which it came to fruition, before we arrive at a consideration of this type as it existed in the seventeenth century.

The Renaissance revived interest in the Classical world, and the ideas of the "Ancients" were once again being disseminated. The importance of regional study, as the Renaissance scholars discovered, was recognized at an early period in the history of the Western world. The description of foreign places in particular constituted perhaps the first known scope of geography. The works of Strabo, Mela, Varro, Pliny, Pausanius, Herodotus, and others provided geographical information on the physical features of the

countryside, the location of cities and towns, the details of the flora and fauna, the character of the native inhabitants, and so on.

At least one historian has argued that the Ancients had no topography.<sup>2</sup> However, one has to look only as far as the geography of Strabo (whose work was the only full length treatise of geography to survive the fall of the Roman Empire) to find both a substantive treatise of the world as it was known to the Romans and a philosophical case for regional geography.<sup>3</sup> In making a case for regional geography Strabo emphasized its integrative or holistic character and recognized the need to use the results from the other branches of knowledge. Strabo had actually been a historian before turning to geography and was therefore able to demonstrate how the two arts might be combined.<sup>4</sup> He immersed himself in political, historical, and descriptive geography, areas which required more involvement in facts than in theories, and where historical content was of an impressionistic nature, i.e., a sketch rendered with a few characteristic strokes established the nature and identity of a place, a person, or of an occurrence. In his treatment geography was not viewed as a specialized science:

The science of geography, which I now propose to investigate, is, I think, quite as much as any other science, a concern of the philosopher. . . . In the first place, those who in earliest times ventured to treat the subject were, in their way, philosophers--Homer, Anaximander of Miletus, and Anaximander's fellow citizen Hecataeus. . . . In the second place, wide

learning, which alone makes it possible to undertake a work on geography, is possessed solely by the man who has investigated things both human and divine--knowledge of which, they say, constitutes philosophy. And so, too, the utility of geography--and its utility is manifold, not only as regards the activities of statesmen and commanders but also as regards knowledge both of the heavens and of things on land and sea, animals, plants, fruits, and everything else to be seen in various regions--the utility of geography, I say, presupposes in the geographer the same philosopher, the man who busies himself with the<sup>5</sup> investigation of the art of life, that is, of happiness.

Strabo's advocacy of wide learning was not taken lightly by future humanists and chorographers, men who knew the value of observation and experience. But it was the publication of Ptolemy's Geography at Vicenza in 1475 and in many subsequent editions which provided the first framework for British antiquarian study.<sup>6</sup> The Geography, and the Itinerary of Antonius, first published in Italy in 1512,<sup>7</sup> provided little more than lists of names, "but those lists were the only basis on which historians could build."<sup>7</sup>

In Britain a native tradition of chorographic (i.e., topographical-historical) writing existed before John Leland's time. It consisted, however, primarily of prose works of varying qualities, separated from each other by as much as several hundred years. This native tradition began in the sixth century with Gildas. Gildas opened his history De Excidio Britanniae with a brief passage on the site and extent of the island of Britain. He mentioned the major rivers, cities, and castles, and extolled the richness of the soil and the beauty of the British waterways. Gildas

along with Orosius, Pliny, and Solinus, supplied the "Venerable" Bede (writing in the eighth century) with valuable sources of information for his Ecclesiastical History of the English Nation. The opening chapter of this work contained brief accounts of British flora and fauna, salt springs and hot baths, copper, iron, lead, and silver mines, rivers and streams, and also listed the other natural advantages. The five languages spoken in Britain and the earliest invaders of the land were given due notice here. The chapter is relatively short, but almost every subject which occupied the attention of subsequent British topographical-historical writers was at least mentioned. The situation of Britain and Ireland is described in these words:

Britain, formerly known as Albion, is an island in the ocean, lying towards the north west at a considerable distance from the coasts of Germany, Gaul and Spain, which together form the greater part of Europe. It extends 800 miles northwards, and is 200 in breadth, except where a number of promontories stretch further, so that the total coastline extends to 3600 miles. To the south lies Belgic Gaul, to whose coast the shortest crossing is from the city known as Rutubi Portus, which the English have corrupted to Reptacaestir. The distance from there across the sea to Gessoriacum, the nearest coast of the Morini, is fifty miles, or, as some have written, 450 furlongs. On the opposite side of Britain, which lies open to the boundless ocean, lie the isles of the Orcades. . . .

Ireland is far more favoured than Britain by latitude, and by its mild and healthy climate. Snow rarely lies longer than three days, so that there is no need to store hay in summer for winter use or to build stables for beasts. . . .

This type of descriptive opening was emulated by many future writers. It is not unusual, in fact, to find the seeds of later chorographic work lying in the medieval descriptions of Britain which usually served as introductions to chronicles and histories. For example, most of Bede's chapter was uncritically absorbed by the twelfth-century chronicler Henry of Huntingdon. Henry added on the Brute legend, taken from Nennius; his own contribution included accounts of various English marvels, Roman roads, the Saxon Heptarchy, and lists of shires and bishoprics.

There were others who similarly described the British countryside. William of Malmesbury, in his Gesta Pontificum Anglorum (1125) concentrated on the towns and countryside of northern, southern, and western England. William Fitzstephen, on the other hand, gave a graphic account of twelfth-century London in the prelude to his life of Thomas Becket.<sup>9</sup> The Welshman Giraldus Cambrensis (commonly known as "Gerald") wrote seventeen books, all in Latin, several of which were chorographic in nature. These included The Topography of Ireland, one of the first treatises to describe the island and its people; The Itinerary of Archbishop Baldwin through Wales, a travel-diary of a preaching tour which Giraldus and Archbishop Baldwin undertook in 1188 to gain support in Wales for the Third Crusade; and, The Description of Wales (Descriptio Cambriae), a description of the geography of

Wales and of the day to day existence of ordinary Welshmen during the last years of Henry II.

In the first Preface to the Description of Wales Giraldus portrays himself, true to the Ptolemaic tradition, as an artist, a painter, the master of his art.<sup>10</sup> This work is divided into two books, the first of which could almost pass for a sixteenth- or early seventeenth-century treatise of this kind. His material is mostly original and gathered from personal observation. Book One, divided into eighteen chapters, begins by establishing the situation, boundaries, and the natural features of Wales. The essential division of the country into three parts is described here, Gwynedd, Deheubarth and Powys; its cantrefs; the royal palaces; and, the cathedral sees. Inserted also is genealogy of the Welsh princes. Chapter Five contains a discussion of the "noble rivers," mountain ranges, and lakes (one of which, in Snowdonia, is described as being stocked with one-eyed fish), while the next two chapters conclude the section on the physical description of Wales by delving into the fertility of the land and speculating on the origin of the names "Cambria" and "Wales." While "Cambria," as we are informed, took its name from the leader "Camber," son of Brutus, the name "Wales" is derived from one of the barbarous words brought in by the Saxons when they occupied Britain. Giraldus then moves on to a consideration of the merits and customs of the Welsh people, who are presented as

being light, agile and fierce. The entire nation is trained in war. Their sole interest in life, if the author is to be believed, consists of caring for their horses and keeping their weapons in good order. As for personal care, the men shave their faces (except for the moustache), while both sexes take care of their teeth, constantly cleaning them with green hazel-shoots and then rubbing them with woollen cloths. Also, most of the population is musically talented. The main instruments they play are the harp, the pipe, and the crwth (a stringed instrument). Book One ends with an account of the conversion of the Welsh to Christianity by Faganus and Duvianus who, at the request of King Lucius, were sent to Britain by Pope Eleutherius.

Book Two, consisting of ten chapters, depicts the natural propensities of the Welsh as having been corrupted by their long exile and by their lack of prosperity. The population is therefore prone to plunder, interfamily squabbling, greed, unnatural vice, etc. This type of representation helped make the works of Giraldus "very human withal, too human for many modern Welsh and Irish critics."<sup>11</sup> While his topographies circulated widely in manuscript, they did not, however, enjoy the popularity of the chronicles.

For a long period of time following the efforts of Giraldus no important topographical-historical works were produced. However, in the fourteenth century the chronicler

Ranulf Higden (a monk at Chester) reestablished the study of the British countryside.<sup>12</sup> Higden's Polychronicon (the earliest manuscript version was completed in 1327) is typical of the medieval descriptive tradition. His main sources are Bede, Geoffrey of Monmouth, William of Malmesbury and Giraldus. Yet his critical approach to his sources is atypical compared to that of most of his contemporaries. Some of the marvels related in this work are only accepted by him if they are borne out by the witness of reliable historians, corroborating each other.<sup>13</sup> For example, he accepts few items out of the body of Arthurian tradition and wonders whether Geoffrey did not wilfully misrepresent Arthur by romantically enhancing his deeds.<sup>14</sup> Overall he regards Geoffrey's account as ahistorical. The entire first book of the Polychronicon consists of a descriptive geography of the entire world, followed by descriptions of Ireland (based primarily on Giraldus), Scotland, Wales, and England. Besides relying heavily on previous writers, Higden also included his own personal observations.

The Polychronicon became a vehicle for acquainting sixteenth-century antiquaries with the earlier topographies. It was translated from Latin into English by John Trevisa in 1387 (and later anonymously).<sup>15</sup> Caxton published Trevisa's translation of a topographical part of the Polychronicon under the title The descrypcion of Englond in 1480. This

section again was reprinted several times later in a variety of forms until it became not only well known but also quite popular among sixteenth-century readers.<sup>16</sup> In one sense, Higden's first book therefore aided in defining the topographical-historical or chorographic genre. The description ranged freely over the details of physical and political geography, and included such antiquarian concerns as the locations of Roman roads and the names of ancient cities and towns, a history of the language, and accounts of legal organization and terminology. In addition, it contained a commentary on the manners and morals of the writer's contemporaries. And yet, as Arthur Ferguson states:

Higden used his geographical description, including the familiar speculation on the diverse effect of climate on peoples, as a static setting, a stage of fixed props on which man acted in a sequence of events that bore little continuing relation to their social or geographical context. Geography may have conditioned the original character of a society, but it was not something which, by storing its inventive genius, might continue to act as a factor in the history of that society.<sup>17</sup>

Higden was followed by William of Worcester, or William Botoner as he used to call himself. Worcester was physician and secretary to Sir John Fastolf of Caister in Norfolk. After Fastolf's death in 1459 Worcester returned to his native Bristol where history, topography, medicine, architecture, literature, and astrology all occupied his attention. Between 1478 and 1480 Worcester had had the opportunity to gratify his antiquarian interests by

travelling through Norfolk, Bristol and the southwest, collecting materials first hand. From these itineraries it appears that he was collecting information for a comprehensive chorographic description of Britain, while keeping a day to day account of his journeys. These antiquarian notes, alternating with astrological speculation or private letters (a mixture later popular with John Aubrey), make his Itinerary fascinating reading:

Note-book in hand he went forth on his tours, always ready to pick up information from chance acquaintances upon any subject of interest. The character of a modern interviewer, eager to put down whatever the person he has captured can tell him about places or people. To take some examples: He meets a Dominican friar, one John Burges, at Exeter, and finds that he knows a good deal about the saints of the district. Out comes the note-book, and down go the details: "Ex informatione Fratris Johannis Burges. . . ." Other information he gets from a priest at St. Mary's Ottery, "loquendo et potando," from a ferryman, and from the keeper of a prison at Bristol, and from a workman to a "plump-maker" in the same place, from whom he had inquired about a tree growing in the streets. A Scotchman tells him all about Scotland and the Isle of Skye, so called--at least so he says--because the mountains are so high. A merchant from the Isle of Man speaks about that island, and also about Ireland. . . .<sup>18</sup>

Worcester mixed legendary history, the lives of saints, records of religious houses, measurements of buildings, and inscriptions on monuments and epitaphs in his writings, combining the past and the present in a lively fashion that would interest the reader. The havens, the ships in the harbour, the local architecture, records of amount spent on building projects, and other bits of topographical and historical information allow his description of Bristol to

stand comparison with any chorographic work of the following century. To obtain much of his information Worcester paced this city, recording its measurements as so many of his own steps, "200 steppys meos computatos." Worcester is linked to the incipient humanism of his day through his friendship with William Sellyng, one of the earliest students of Greek in England, and the translator of Cicero's De Senectute. And yet, Worcester's humanistic skills should not be exaggerated.<sup>19</sup> Although his own study anticipated Leland's Itinerary, in the former the geographical range is more restricted and the antiquarian interest obscured by a multitude of essentially contemporary concerns. Furthermore, it is not clear whether Worcester was a "dilettante without qualification for scholarship," or his notes merely "private memoranda" intended for a more coherent purpose.<sup>20</sup> Unfortunately, in either case, he was without influence and relatively unknown to subsequent writers.<sup>21</sup>

The regional studies written in Britain up to the end of the fifteenth century do not form a very unified whole. These works lack the <sup>s</sup><sub>n</sub>ame sense of purpose--to display and clarify one's own country--which helped to unite the chorographic descriptions of the sixteenth and early seventeenth centuries. Even so, they do constitute a tradition. Almost all the forms of topographical-historical literature existed by 1400: descriptions of an entire country, and of individual regions, cities, and various

ruins. These accounts were basically annalistic in form, relying mostly on previous narratives which were received uncritically. Their form, from a modern viewpoint, is too chronological. And, the topography was often overshadowed by the descriptions of political and religious events. (As we shall see, some of the seventeenth-century chorographies would also tend to emphasize the non-topographical element, i.e., genealogy and heraldry). The new sense of purpose is evident in the works of each of the three "giants" in the field of sixteenth-century chorographic scholarship, John Leland, William Lambarde, and William Camden. These men shared one thing in common; an almost fanatical love of Tudor England. They explored the country, observing and recording, delighting to produce not so much a history as a "Speculum Britanniae," a looking-glass of Britain in which every aspect of the nation of their day should be faithfully reflected. Thus, before too long, the nation-wide surveys were succeeded by more detailed studies of individual counties.

The first important and influential British antiquary was John Leland (1506?-1552), "the father of English topographers," as H. B. Walters called him.<sup>22</sup> The study and investigation of Britain gained new direction in the 1540s when Leland began work on his never-published description of Britain.<sup>23</sup> His efforts extended in a number of directions: topographical description, mapmaking, and

the study of the language, institutions, and remains of the British past; this entailed many preliminary duties. He had to discover and examine the ancient chronicles as well as the archaeological remains that survived from the past. It meant searching the libraries and the countryside for information, reading the ancient languages, and also inventing new "languages"--the interpretation of sphragistics (seals), numismatics (coins), epigraphy (inscriptions), and diplomatics (documents). His notes, moreover, came to constitute "the ultimate source of a good deal of our knowledge of early English history and . . . of the appearance of Tudor England."<sup>24</sup>

Leland's life story has been ably told by others, and requires only brief reiteration here.<sup>25</sup> In 1533 he was appointed the official "King's Antiquary."<sup>26</sup> Thereafter he was commissioned to:

. . . peruse and diligently to serche al the libraries of monasteries and collegies of this yowr noble reaulme, to the intente that the monumentes of auncient writers as welle of other nations as of this yowr owne province mighte be brought owte of deadely darkenes to lyvely lighte, and to receyve like thankes of the posterite, as they hoped for at such tyme as they emploied their long and greate studies to the publique wealth; yea and furthermore that the holy Scripture of God might bothe be sincerely taughte and lernid, al maner of superstition and craftely coloured doctrine of a rowle of the Romaine bishopes totally<sup>27</sup> expellid oute of this your moste catholique reaulme.

Leland began his task soon after his appointment, and spent nearly ten years travelling and collecting materials for his projected chorography of Britain. In 1546 he presented his

plans to Henry VIII in a document edited by Leland's fellow antiquary, John Bale. This document was printed in 1549 under the title The Laboryouse Journey and Serche of John Leylande, for Englande's Antiquities.<sup>28</sup> It is sometimes referred to as Leland's "New Year's Gift," and is more commonly known today--thanks to Thomas Hearne and Lucy Toulmin Smith--under the title of Leland's Itinerary, or simply as The Itinerary. After his travels Leland settled in London and began reworking his materials until he became increasingly insane, and passed away in 1552.

Leland's Itinerary was a statement of the aim of Leland's antiquarian research. This included the description of the realm for posterity, the setting out of the evidence for the nobility of King Henry VIII and his progenitors, and an account of the destruction of Rome's power in Britain. In doing so, Leland claimed to have compiled a list of Britain's scholars, "beginning at the Driudes," and to have assessed the historians and their "historiographies," a job which stirred his desire to see the areas they described. He told Henry: "I truste that your reaulme shaul so welle be knowen, ons payntid with his natives coloures, that the renoume ther of shaul gyve place to the glory of no other region. . ."<sup>29</sup> In order to attain these rather lofty goals, Leland was forced to visit almost every distinctive geographical feature of England. At the end of his research he proposed several specific projects.

These included a topographical map of the realm, to be made of silver; publication of the record of his travels in a "Liber de Topographia Britanniae"; three books entitled "De Nobilitate Britannica," revealing to the English nobility their "lineal parentage"; and, finally, a history written by himself to be entitled either "De Antiquitate Britannica" or "Ciuitatis Historia." The proposed organization of this last work is interesting for its influence on later writers:

This work I entende to divide yn to so many bookees as there be shires yn England, and sheres and greate dominions yn Wales. So that I esteme that this volume wille conteyne the beginnings . . . and memorable actes of the chief tounes and castelles of the province.<sup>30</sup>

Leland's plan, therefore, was to divide the work into several books, each of which would describe the history and topography of a particular shire; the total survey would envelop all of Britain. Accounts of the adjoining isles would also be included. But it was a plan beyond the powers of a single man. Anthony à Wood was to ascribe Leland's insanity to the frustration of so great an undertaking. However, as Levy states:

. . . that the plan was in its essentials the correct one can be deduced from the fact that almost all the antiquarian research of the sixteenth century followed it; that it was visionary is obvious when we consider the number of men necessary to elaborate it.<sup>31</sup>

Almost all of Leland's work went unpublished during his lifetime, remaining in manuscript. But the manuscripts themselves were influential and important. After his death his notes were passed on to the antiquaries who followed

him. Aside from Bale, John Stow, William Harrison, Camden, Lambarde, Dugdale, and others also transcribed and borrowed from Leland's work.<sup>32</sup> Leland set an important precedent by actually going out in the field to look at what he described rather than merely scouring the chronicles for his data. In this, his method resembled that of Worcester. But again, Leland was remembered by those writers who came later, while Worcester was not. Leland was acquainted with such Classical geographers as Strabo, Pomponius Mela, Ptolemy and Antonius. One of his manuscripts consists largely of extracts from them which relate to Britain. Included in these notes is a series copied from the 1535 edition of Ptolemy's Geography, and from Antonius's Itinerary.<sup>33</sup> This latter work, generally known as the Iter, is in fact only a bare list of cities in the Roman Empire (compiled in Roman times), with distances plotted between them, and therefore was not as influential as the studies of Ptolemy. Leland, in association with his friend Robert Talbot, inaugurated the search for these ancient Romano-British cities, an investigation that culminated in Camden's Britannia and William Burton's Commentary (1658).

Leland's Itinerary consists of short descriptive sentences dealing with a wide variety of observations:

. . . there is almoste nother cape, nor bay, haven, creke or peere, river or confluence of rivers, breches, waschis, lakes, meres, fenny waters, montaynes, valleis, mores, hethes, forestes, chases, wooddes, cities, burges, castelles, principale manor placis, monasteries,

and colleges, but I have seene them; and notid yn so  
doing a hole worlde of thinges very memorable.<sup>34</sup>

Leland apparently jotted down on the spot notes which he gathered from numerous local authorities. Later he wrote the narrative from them, and from memory. Often he left blanks, or only listed towns and distances, in the hope of filling in the details on a later occasion. The result is a combination of rough notes and narrative which resembles a road-book in its character. Here, the produce of the country, details of the direction to be taken, physical features such as bridges and fords, the other particulars of each route, and the distances in miles are dutifully noted. His travels took him into nearly all the populated areas of England and even into Wales, entering at will (due to the king's commission and letters of introduction) the various monastic and cathedral libraries.<sup>35</sup> Along with his own observations he also included the occasional traditional stories, legends, and hearsay in his writings.

Briefly taking a typical example--Leland's notes on the town of Lincoln--one can better determine the quality of his research. This is marked by the fact that Leland assembled the history of the town, in part, from its archaeological remains, or "antiquities" (as they were then commonly known). For example, an inspection of the site revealed that the town developed in at least three stages. The first of these was built by the Romans, as revealed by

the "ditches whereof, yet remayne and great tokens of the old towne waulls."<sup>36</sup> The Roman coins, as unearthed here earlier, are mentioned in the text, as are several other relics from the past. The subsequent Saxon occupation is described in similar terms. It is obvious, however, that Leland lacked the capacity to fully realize the potentialities of archaeological remains as evidence for the reconstruction of the past. Whereas a century later John Aubrey was to see the value of extensive fieldwork and therefore examined in detail various hill forts, stone circles, barrows and linear earthworks, and generally studied antiquities for their own sake, Leland did not appear to have planned his own researches with any concrete idea of how such source material might be effectively utilized. Moving to a country setting, namely Warwickshire, Leland established the distances between the major towns and then delineated the total area of the shire. He described the architecture of the towns, the bridges, the schools and the abbeys; he gave etymologies of local names; and he followed the courses of local rivers, noting the noble houses, a feature of his methodology which was to be copied extensively by future chorographers.<sup>37</sup> In his work, therefore, Leland drew past and present together. According to Kendrick, he studied the topography of the countryside of his time "because he was in love with Tudor England, and he

loved his glorious present all the more because he so loved his British past."<sup>38</sup>

William Lambarde's (1536-1601) A Perambulation of Kent (1576), meanwhile, places him undeniably in the line of succession to John Leland.<sup>39</sup> And yet the emerging character of a newer antiquarianism is immediately discernible in Lambarde's work. In general, here we find much less presentation of evidence in support of special causes, but a work where the pleasures of contemplating the antiquity of one's own surroundings are presented for their own sake. But, like his predecessor Leland, Lambarde was interested in facts, the topography, towns and markets, architecture, customs, etc. He also included useful information concerning the Kentish gentry, its genealogy, rights, and its liberties.<sup>40</sup> Lambarde's Perambulation grew out of his interest in Old English law, particularly in the ancient Kentish custom of division of property among all the children, known as "gavelkind."<sup>41</sup> His first work reflected this interest in legal antiquarianism. It was a collection of Anglo-Saxon laws with a translation, undertaken at the request of his teacher and friend, the Saxonist Laurence Nowell, and was based on Nowell's research and collection.<sup>42</sup> The Perambulation was also based partially on the Dictionarium Angliae Topographicum et Historicum (commonly called the Topographical Dictionary), a work which also embodied much of Nowell's research.<sup>43</sup> This Topographical

Dictionary, published in 1730, was circulated widely in manuscript form. It was not a polished work, resembling a rough notebook in character, being "but a Breviate for Store, and was meant to be enlarged, as the Perambulation of Kent is."<sup>44</sup> In the second edition of the Perambulation Lambarde wrote:

I had some while since gathered out of divers auncient and late Histories of this our Ilande, sundrie notes of such qualitie, as might serve for the description and Storie of the most famous places thorowe out this whole Realme: which collection (bicause it was digested into Titles by order of Alphabet, and concerned the description of places) I called a Topographicall Dictionary: and out of which, I meant in time . . . to drawe (as from a certaine Store house) fit matter for each particular Shire and Countie.<sup>45</sup>

Here again is Leland's scheme. Lambarde consciously intended the Topographical Dictionary to be used as a reference work for anyone describing a particular region or county, to "serve as the source for a whole series of county histories."<sup>46</sup>

This work begins with a list of counties, each with a short description of its cities, castles, schools, bridges, religious houses, and geographical features. Then the dictionary proper proceeds alphabetically from "Albion" to "Wyrisdale," containing notes on local historical events as well as on etymology and on other features of antiquarian interest. Lambarde's proficiency in Anglo-Saxon studies is evident throughout, not only in the derivation of place-names but also in brief translations and references to

various Saxon tracts. In fact, he noticed a major weakness of his sources, to be found especially in Leland, Bale, Giraldus and Polydore Vergil:

It weare to longe, and beside my Purpose, to recite how shamefully Polydore and a Nombre of our Hystoriographers have missed the Marke in beatynge out of the Etymologies of Places, and al for<sup>47</sup> want of judgment in the Bryttishe and Saxon Languages.

The Perambulation warrants even greater attention because, as mentioned earlier, its publication released a veritable tide of regional studies. Lambarde's chief justification for his researches seems simply to have been the delight he took in collecting and describing ancient things, an attitude reflected in the thought and the work of the antiquaries up to at least the 1650s.<sup>48</sup> It was his approach and method, not just his focus, which exerted an important influence over his associates and successors and enabled them to regard him as a model worthy of imitation. Serving the cause of regional study he made it easier, as Thomas Philipot states, for "any, that should endevour further Progresse therein; Facile est inventis addere, difficile invenire."<sup>49</sup>

Lambarde adopted the concept of the "perambulation" in order to accomplish the organizational task he set for himself. Although he was personally familiar with many of the places he described, it is clear that he described them not so much as one who has visited them in person as one who has visited them on paper. The notion of a true journey is

retained as a seasoning to his description and often to provide a necessary connective tissue between chapters. The Perambulation, therefore, is not a travelogue-like account, but the formal overview of an antiquary. It is possible that Lambarde had the title of Leland's Itinerary in mind when he chose his own.

The Perambulation begins by describing the Anglo-Saxon Heptarchy, and then presents a general description and history of Kent, starting with the physical features. There are lists of the hundreds, boroughs, towns, hills, rivers, houses, castles, and fairs of the shire. The air, soil, commodities, flora and fauna, livestock, mineral wealth, fisheries, and the population at large, all receive their share of attention. The nobility and the gentry are listed as well, the information obtained primarily from a herald's visitation of 1574. A final table, taken largely from John Bale's Catalogue, lists the Kentish writers, ancient and modern. Then, commencing with the See of Canterbury, Lambarde traverses the shire, discussing the topography and history of each locality. The closing section of the Perambulation, "The Customs of Kent," reveals two of the author's special interests, the Anglo-Saxon language and English law, where the history of gavelkind (peculiar to the shire) is discussed.<sup>50</sup> His interest in etymology, meanwhile, is evident first of all in the fact that every chapter begins with a fairly elaborate title which tries to

trace the derivation of the place-name, and often provides the equivalents in Latin, British, Saxon, or all three. One example is that of Rochester:

Rochester, is called in Latine, Dorobreuum, Durobreuum, Durobrouae, and Durobreuis: in Brittish, Dourbryf, that is to say, a swift streme: in Saxon, . . . Rofi ciuitas<sup>51</sup> Rofes citie, in some olde Chartres, Rofi breui.

In general, Lambarde exhibited a scholarly scepticism, justifying our calling him, as he called Giraldus, "a man (considering that age) excellently well learned." He selected evidence intelligently from the raw substance of his sources, and evaluated it in accordance with sound principles. Objective truth, not legend, was his goal. For example, he dismissed out of hand an improbable story in Bede:

. . . this writer is called Venerabilis: but when I read thus, and a number of such, which make the one halfe of his worke, I say with my self as sometime did the Poet . . .<sup>52</sup> What euer thou shewest me so, I hate it as a lye.

He included transcriptions of a number of documents in the text because of his interest and reliance upon documents not only as a source but as instructive in themselves. At one point there is a lengthy discourse on the changing custom of affixing seals to charters, and at another the usefulness of such knowledge to the dating of documents is established.<sup>53</sup> There are also examples of Lambarde's linguistic skill, such as his brief dissertations on the ancient manner of forming personal names, or on the relationship between topography

and Saxon place-names.<sup>54</sup> Lambarde's scholarly objectivity was only impaired in some instances by his anti-Catholic bent, instances where he took every opportunity to ridicule papistry. Another theme extraneous to the subject of local history contained in the Perambulation can simply be called "patriotism." The patriotic element here operated on three different levels. First, it focused on the county itself; second, on the realm; and finally, on the queen. Lambarde writes of his native Kent because it is the county he knows and loves best. His patriotic attitude to the realm is more complex; it is given an almost thematic coherence by the recurrence in various forms of the idea of national defense. The Kentish beacons, for example, are considered essential to rapid communication in times of national emergency. As for his feelings about the queen, his praise reaches beyond her person to her policy, and then it extends well beyond simple flattery.

Lambarde lived to the end of Queen Elizabeth's reign, rewarded for his lifetime of devotion to country and sovereign in the form of a celebrated interview with the queen.<sup>55</sup> Of even greater significance in judging Lambarde's importance as a scholar is the respect paid him by his fellow antiquaries, including William Camden (1551-1623).<sup>56</sup> John Nichols, meanwhile, writing over two hundred years ago, assessed Lambarde's work in these words:

In his Perambulation we may consider him as opening a new source of learning, as an original author. It was the first book of county antiquities. . . . The Perambulation of Lambarde may justly challenge a comparison with any other county history, for clearness of method, variety and accuracy of information, and for comprehensive brevity. At the same time it has its defects. The Roman antiquities of the county he gives up almost entirely as too remote and obscure, concerning which there certainly are not wanting any useful data; nor has he touched upon the natural history; and he might easily have enlarged . . . on the geographic description of the county, as the course of the hills, rivers, and etc. He is most full on the Saxon and English antiquities and historical anecdotes relating to each place.<sup>57</sup>

The first edition of the Perambulation contained an appeal by Lambarde for others to amend his work and to complete the description of the rest of the realm. His hope was that:

. . . some one in eache Shyre, would make the enterprise for his owne Countrye, to the end that by ioyning our pennes and conferring our labours (as it were) Ex symbolo, wee may at the last by the Vnion of many parts and papers, compact a whole<sup>58</sup> and perfect bodie and Booke of our English antiquities.

In the final analysis it was the publication of Camden's Britannia in 1586 that prompted Lambarde to abandon his original plan for a chorography of the entire realm, covering all the counties of England.<sup>59</sup> But that Camden made use of Lambarde's keen criticism and detailed suggestions is demonstrated by the fact that he sent the Britannia to Lambarde in manuscript for his comments.<sup>60</sup> Both men realized that their efforts were complementary. Whereas the Britannia was the true fulfillment of Leland's hopes, providing a panoramic sweep, the Perambulation

anticipated, in a sense, the Victoria County series, with its sharper focus. The different scope of the two works allowed each man to exploit his own subject matter to particular advantage.

Camden's antiquarian researches made him well known even among the continental scholars, who called him "the British Strabo."<sup>61</sup> In fact, he maintained steady correspondence with many of the outstanding European scholars of the day, including Lipsius, Scaliger, Casaubon, De Thou, Gruter, Mercator, and Ortelius. In the cases where he did not personally know a scholar, more likely than not he was familiar with their works; he had read Biondo and was familiar with the work of the Germans.<sup>62</sup> It was the chorographic and cartographic activities of Ortelius, and his letter to Camden urging the latter to "restore antiquity to Britain, and Britain to his antiquity," which provided the immediate inspiration for Camden.<sup>63</sup> Mercator, the famous geographer, did his share by sending Camden a copy of Ptolemy's "Tables." But if the Britannia has its humanistic and continental inspirations, it is even more closely linked with the native antiquarian tradition. Apart from his knowledge of the work of Leland and Lambarde, Camden knew the topographical-historical achievement of the whole British tradition.<sup>64</sup> "The native antiquarian movement," writes Denys Hay, "was to develop in the sixteenth century, with John Leland, until it combines with the continental

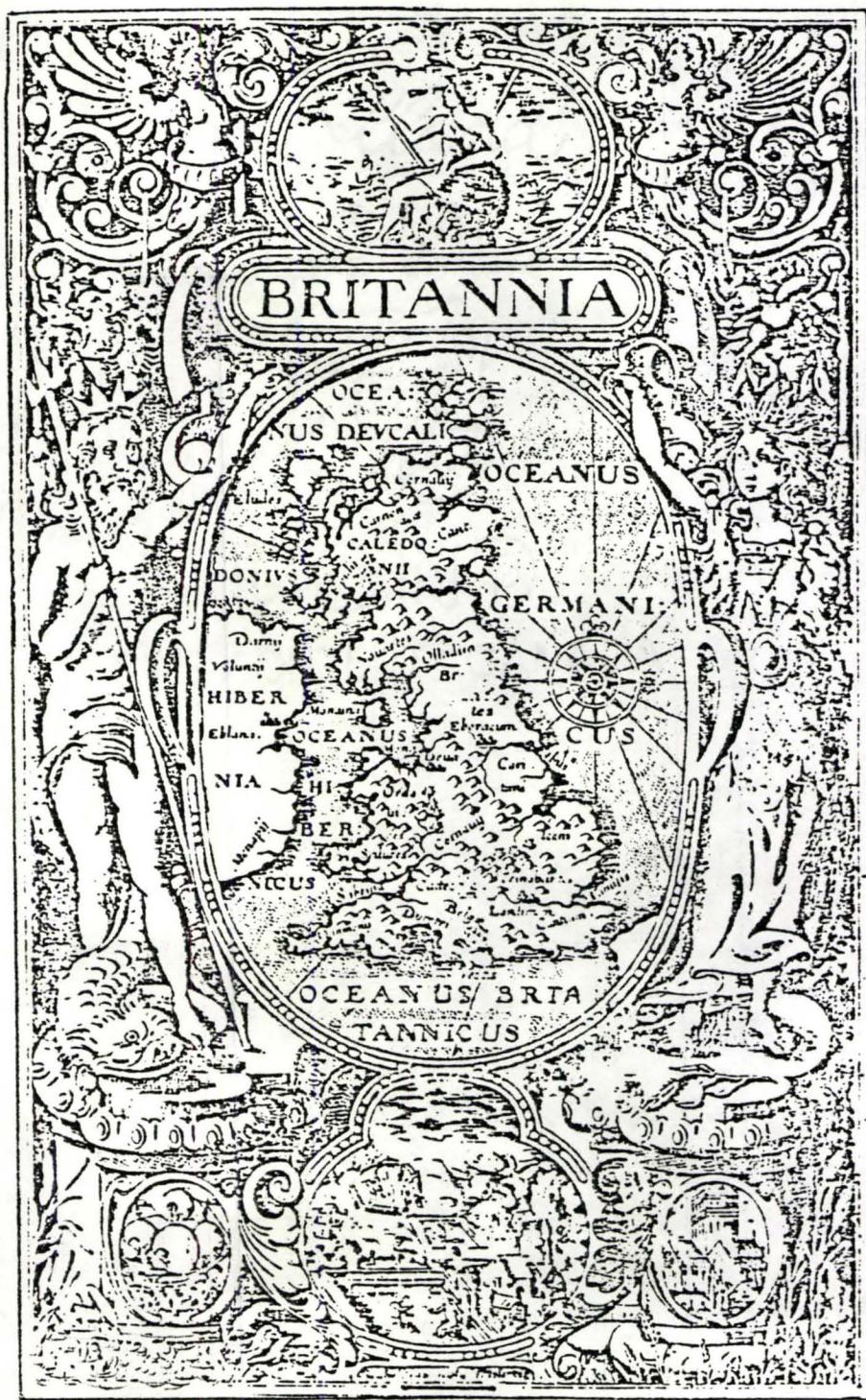


Fig. 3. Map of Britain, from Camden's 1607 Britannia

scholarship of men like Camden to form one of the characteristic features of seventeenth-century scholarship.<sup>65</sup> Being a close friend of Richard Hakluyt, and coming into direct contact with voyagers such as Cavendish and Drake, Camden was undoubtedly also aware of the current progress in the general field of geography. And so he was stimulated to write of the voyages of discovery in his Annales . . . regnant Elizabetha (1615).

Unlike the work of Leland and Lambarde, the Britannia was the product of a collaborative effort. Camden was associated with several circles of scholars (apart from his continental connection), some of whom formed themselves into the first Elizabethan Society of Antiquaries.<sup>66</sup> These men, and other correspondents, sent him information from various parts of Britain; information which Camden occasionally incorporated verbatim into his book (at the same time acknowledging his contributors' assistance). The Britannia was first published as a quarto volume in 1586. Composed in Latin, it rapidly achieved great popularity; within Camden's lifetime five corrected and enlarged editions appeared. The sixth (1607) edition, a large folio volume, represented a major revision, substantially enlarged and containing maps by John Norden and Christopher Saxton. In 1610, Philemon Holland translated the work and made additions of his own; by 1806 seven posthumous editions had



Fig. 4. Part of Christopher Saxton's Map of Kent, from Camden's 1607 Britannia

been produced by renowned scholars, including Edmund Gibson and Richard Gough.

It is quite difficult to give an adequate indication of the actual contents of the Britannia. In his work Camden covered history, geography, topography, anthropology, and antiquarianism in general; thus he included an incredible mass of detail.<sup>67</sup> Camden began with the geography of England and then moved on to more "historical" topics, i.e., the nature of England's early inhabitants and the historical development of the Roman through the Norman period. As he dealt with each county separately, noting the particular antiquities of each location, he sometimes allowed himself long digressions on some of the associated historical topics, e.g., the degrees of nobility in England. But Camden was primarily an antiquary in the sense that more often than not he neglected locales that had no ancient monuments. He was mostly interested in those sites and customs that were best known to the ancient authors. For example, the section on "The Maners and Customes of the Britains" leans heavily on excerpts taken from Strabo, Tacitus, Caesar, and other Classical authors.<sup>68</sup> He assured the reader that the Britannia is chorography, not history. At one point (after one of his digressions), he apologized: "Now remembering myselfe to be a Chorographer I will returne to my owne part, and leave these matters with our Historiographers."<sup>69</sup>

Unlike Lambarde, Camden was less interested in the Anglo-Saxons than in tracing the Antonine itineraries, identifying Roman names with current sites, and recording Roman antiquities in general. But the Britannia did include a review of English law courts that parallels Lambarde's treatment of the Kentish gavelkind. Also, several of Camden's county descriptions repeated the pattern of the Perambulation, covering the same topics, with the addition of discussions of climate and produce. Here is Camden's introduction to the section on Kent:

I am now come to Kent; a Country, which William Lambard, a person eminent for Learning and piety, has describ'd so much to the life in a complete Volume, and who has withal been so happy in his searches; that he has left very little for those that come after him. Yet in pursuance of my intended method, I will survey this among the rest; and lest (as the Comedian says) any one should suspect me of Plagiarism, or Insincerity I here gratefully <sup>70</sup> acknowledge, that his Work is my Foundation.

The overall general plan of the Perambulation, in fact, was adopted by Camden. Both this work and the Britannia begin with a section on the naming of their respective regions. The topics which follow, in Camden's work, correspond in many respects with Lambarde's introductory topics (these being somewhat rearranged) and, as in the Perambulation, the major portion of the book is a place by place topographical-historical survey.

In the long introductory essay Camden discussed the first inhabitants of Britain and then described the

successive peoples that settled the island; the Britons, Romans, Picts, Scots, Danes, and Normans, concluding with a study of the heptarchy and the ancient law courts. In keeping with his stated concern for historical truth and impartiality, and impeaching "no man's credit, no not Geoffrey of Monmouth whose history . . . is held suspected among the judicious," he left the veracity of Brutus being the founder of Britain to the reader's judgement. But then he reviewed--somewhat devastatingly--Geoffrey's history in a reasoned attack that went far towards discrediting the Brute fable.<sup>71</sup> Utilizing evidence from Caesar, Tacitus, and others, he argued that the origin of Britain's inhabitants is to be found in their descent from the Gauls, not the Trojans.<sup>72</sup> His objectivity extended to his story of the Romans in Britain. The fact that Camden's consciousness (like that of the other chorographers of his day) was mainly antiquarian and his materials almost all literary is most evident in this section. Much of this source material was drawn from the ancient Roman topographies and histories, usually presented verbatim, there having been no attempt made to shape the sources into a consecutive historical narrative. Camden did, however, use a variety of additional sources such as poetical references, inscriptions, and coins (reproductions of which accompany the text). He emphasized the coins in particular, since from them "there ariseth very much light to the illustration of ancient histories."<sup>73</sup>

But, like Leland, he actually had little interest in purely archaeological evidence. Such evidence usually appears in his writing as an afterthought to the history of a site. The description of Folkestone provides one example of this: "a flourishing place in times past, as may appeare by the peeces of Romane coin and Britaine brickes daily there found."<sup>74</sup>

Although the Britannia, as noted, did not pretend to be a fanciful narrative, Camden styled himself a second Lambarde, conceiving the long essay on the individual counties as a "perambulation thorow the Provinces or Shires of Britaine," at the same time constructing it along the models established by Strabo, Ptolemy, and the other ancient geographers.<sup>75</sup> Camden, again like Lambarde, personally surveyed the British countryside while preparing the Britannia. This helped make his work one that did not deal solely with the ancient past, but which also described the contemporary British scene. Each county's topography, towns, rivers, economy, early inhabitants, and prominent families were described, and a map of the particular area accompanied the text. The larger divisions, those delineating Britain, Scotland, Ireland, and the offshore islands were preceded by a brief general history. Etymological discussions, topographical description, and history were all combined in the following typical sample, on Buckinghamshire:

Chiltern got that name according to the very nature of the soile of Chalkie marle, which the ancient English men termed Cylt or Chilt. For, all of it mounteth aloft with whitish hilles, standing upon a mixt earth of clay and chalke clad with groves and woods, wherein is much Beech, and it was altogether unpassable in times past by reason to trees, untill that Leofstane Abbot of Saint Albans did cut them downe, because they yeelded a place of refuge for theves. In it, where the Tamis glideth at the foote of those <sup>76</sup> hilles with a winding course, standeth Marlow. . . .

Camden received a considerable portion of this kind of information from contemporary chorographers other than Lambarde, a group which included Sampson Erdeswicke, Dee, Owen, Stow, and Carew.<sup>77</sup> Carew in particular was an old friend. His Survey of Cornwall and Camden's section on Cornwall may both be considered almost as works of joint authorship.<sup>78</sup> Correspondents from further afield sent Camden information on some of the remotest parts of the country. For example, Reginald Bainbrigg, a schoolmaster, made several excursions along the Roman wall and surrounding countryside, gathering inscriptions and other information:

The wall crosseth Eden at Carelile and goeth to Stanwiggs, wher ther stands a verie ancyent churche, but ruinous as commonlie, all the churches on the bourders are: from thence it goeth to Blaytarne not far from Scalbie castle wher I found this inscription in faire letters, this stone was laitelie digged up and put in a howse newlie buylded. . . .<sup>79</sup>

Bainbrigg was to painstakingly transcribe copies of dozens of inscriptions, which he forwarded to Camden.

Camden's primary motive behind his work was based on patriotism.<sup>80</sup> Denys Hay, for one, believes that Camden, by

means of the various editions of the Britannia that had appeared by the time James had proclaimed himself King of Great Britain in 1604, "did more to unite Britain in the long run than did King James."<sup>81</sup> Other modern scholars see this book as a work of major significance for historical studies. Stuart Piggott views it as a milestone in the history of British antiquarian thought, describing the changing nature of antiquarianism in the early seventeenth century in these words:

The appearance of the English versions of the Britannia show in themselves a changing antiquarian public in this country. The original Latin work was addressed to the world of European scholarship. . . . But by Jacobean times a new class of reader had grown up in England, anxious to read antiquarian literature in English: a taste which the Britannia itself had gone far to create. We have moved out of that Latin speaking fraternity of learning which, up to the time of Elizabeth, had carried on the tradition of the scholars' lingua franca, and are in the new, self-confident, national state in which, with the increase of literacy, an interest in local history was no longer confined to the learned professions, but was as likely to be found in the merchant or the country squire.<sup>82</sup>

Sir Maurice Powicke states that: "the Britannia marks a new epoch in the history of English learning . . . its comprehensive arrangement . . . provided a cadre within which the study of British history could develop in an orderly way."<sup>83</sup> F. Smith Fussner agrees with Powicke that Camden was a "modern" rather than a "medieval" historian, representing the triumph of the new studies in England, although Fussner dismisses the Britannia as "essentially a

survey of local antiquities and history."<sup>84</sup> John F. Black, meanwhile, states that:

. . . for all his shortcomings in form and finish, [Camden] still holds the highest place in the affection of those who value historical research, both for his indefatigable efforts to establish <sup>85</sup> the truth, and his industry in collecting material.

T. D. Kendrick also notices that even though the Britannia grew out of a well-established tradition it helped shape subsequent activity:

The directive power of the Britannia was the dominant influence upon antiquarian research in the seventeenth century; Camden had shown in his clear persuasive preface how to blow away the fogs and confusion . . . and how to make a fresh start by the exercise of a little original thinking. . . .<sup>86</sup>

The chorographers who followed were not, for the most part, as scholarly or erudite as Camden. None of them could boast of being as well-versed in Anglo-Saxon studies as Lambarde, or in Roman antiquities as Camden. Only a minority had any significant connection with continental scholarship. In a sense, therefore, what followed the Britannia is largely considered by modern scholars as anti-climatic, and so they tend to overlook the importance of the chorographic activity of the first half of the seventeenth century. Only in a few cases was the pattern of Camden's book closely followed. Many of the seventeenth-century chorographers were more interested in their contemporary surroundings rather than in the distant Roman or Anglo-Saxon past. But once Camden

provided the "overview" by his description of all of Britain, each chorographer could now concentrate on describing his own part of the British Isles (as Lambarde had done), thereby not only helping fulfill Camden's original plan but also continuing the native chorographic tradition.<sup>87</sup>

## NOTES: CHAPTER II

<sup>1</sup>Camden, Britannia, 1610 ed., preface, "The Author to the Reader," uses these words to describe the reasons why Ortelius, the geographer and mapmaker, had urged him to write a geography of Britain.

<sup>2</sup>Joseph Hunter, Hallamshire (London, 1819).

<sup>3</sup>J. O. Thompson, History of Ancient Geography (New York, 1965), 224-225.

<sup>4</sup>The forty-seven books of his Historical Sketches are now lost.

<sup>5</sup>Strabo, Geography, trans. and ed. Horace Leonard Jones, 8 vols. (London, 1927-49), 1(1927):1.

<sup>6</sup>This point is made by Evans, Society of Antiquaries, 2. Ptolemy is discussed in G. R. Crone, Maps and their Makers (London, 1962), chap. 5, and in Strauss, Sixteenth-Century Germany.

<sup>7</sup>Evans, Society of Antiquaries, 2.

<sup>8</sup>Bede, A History of the English Church and People, with a Foreward and trans. by Leo Sherley-Price, rev. ed. (Harmondsworth, 1981), 37, 39. Bede was, in fact, one of the outstanding European figures in the history of science during the Dark Ages. His other important works on matters of science include his De Temporum Ratione (c. 730), and De Natura Rerum Liber (c. 703); see The Complete Works of

Venerable Bede, ed. J. A. Giles, 12 vols. (London, 1843-44). In many instances Bede followed Pliny, whose natural history was the main authority on science available to Western European scholars until the translation of Greek scientific writings into Latin in the twelfth century; see Pliny, The "Natural History" of Pliny, trans. J. Bostock and H. T. Riley, 6 vols. (London, 1855-57); and William H. Stahl, "Dominant Traditions in Early Medieval Latin Science," Isis 50 (1959):95-124.

<sup>9</sup> John Stow, in his Survey of London, utilized Fitzstephen's work.

<sup>10</sup> This account of the Description of Wales is derived from Giraldus Cambrensis, The Historical Works of Giraldus Cambrensis, trans. Thomas Forester and Sir Richard Colt Hoare, ed. Thomas Wright (London, 1887); also see Henry Owen, Gerald the Welshman (London, 1889); J. C. Davies, "Giraldus Cambrensis, 1146-1946," Archaeologia Cambrensis 99 (1946-47):85-108, 256-280; David Walker, "Gerald of Wales: A Review of Recent Work," The Journal of the Historical Society of the Church in Wales 24 (1974):13-26; and, Thomas Jones, "Gerald the Welshman's Itinerary through Wales and Description of Wales: An Appreciation and Analysis," The National Library of Wales Journal 6 (1949-50):117-148, 197-222.

<sup>11</sup> Charles Homer Haskins, The Renaissance of the Twelfth Century (Cleveland, 1961), 315.

<sup>12</sup>This lack of chorographic studies is only slightly offset by the several "urban surveys" made during this period. Descriptions of King's Lynn and Great Yarmouth (apparently produced in response to governmental inquiries during the reign of Edward I) provide examples of this type of survey--a type which fits more neatly into the Domesday Book rather than the chorographic category; see Elizabeth Rutledge and Paul Rutledge, "King's Lynn and Great Yarmouth, Two Thirteenth-Century Surveys," Norfolk Archaeology 37 (1978):92-114.

<sup>13</sup>This attitude is made clear towards the end of the first chapter of the first book; Ranulph Higden, Polychronicon, eds. C. Babington and J. R. Lumby, Rolls Series 41, 9 vols. (London, 1865-86), 1(1865):1.

<sup>14</sup>Ibid., 5(1874):330, 336.

<sup>15</sup>Trevisa's translation is interesting in that he added some stimulating comments concerning the original text and occasionally digressed to reveal some of his own opinions on various topics. On the whole, Trevisa upheld Geoffrey's authority against Higden. Information on this topic is found in J. E. Wells, Manual of Writings in Middle English (London, 1916), 205; and David Fowler, "John Trevisa: Scholar and Translator," Bristol and Gloucester Archaeological Society Transactions 89 (1971):99-108.

<sup>16</sup>J. Taylor, The "Universal Chronicle" of Ranulf Higden (Oxford, 1966), *passim*. One of the first writers to

imitate Higden is John of Fordun. Chapter Ten of the second book of Fordun's Chronica Gentis Scottorum, a description of the islands off the west coast of Scotland, is the earliest such description in Scottish historical sources; see William W. Scott, "John of Fordun's Description of the Western Isles," Scottish Studies 23 (1979):1-13.

<sup>17</sup> Arthur B. Ferguson, "Circumstances and the Sense of History in Tudor England: The Coming of the Historical Revolution," Medieval and Renaissance Studies 3 (1968):193.

<sup>18</sup> Francis A. Gasquet, The "Old English Bible," and Other Essays (London, 1897), 293-294. Worcester's notes, partly in Latin, partly in English, were never fully arranged for publication. Otherwise Worcester might today be regarded as the first British antiquary well known among his contemporaries--a title going instead to John Leland. Worcester's notes survive in MS 210 of Corpus Christi College, Cambridge, which was first edited by James Nasmith in "Itineraria" Symonis Simeonis et Willelmi de Worcester (Cambridge, 1778). The Description of Bristol alone was later republished by James Dallaway, Antiquities of Bristol (Bristol, 1834). William Worcester, Itineraries, trans. and ed. John Harvey (Oxford, 1969) provides a translation and a useful index, but it unfortunately omits the Description of Bristol.

<sup>19</sup>K. B. McFarlane, "Wm. Worcester, a Preliminary Survey," Essays Presented to Sir Hilary Jenkinson (London, 1957), 214 passim.

<sup>20</sup>Ibid., 218; Roberto Weiss, Humanism in England during the Fifteenth Century (Oxford, 1941), 178.

<sup>21</sup>Kendrick, British Antiquity, 32.

<sup>22</sup>H. B. Walters, The English Antiquaries (London, 1934), 2. Walters's treatment of the subject material is quite superficial, contrary to what the title of this work might lead a reader to believe. Leland, Stow, Camden, and subsequent antiquaries are here allotted approximately two pages each. T. S. Dorsch, in "Two English Antiquaries: John Leland and John Stow," Essays and Studies, n.s., 12 (1959): 29, states that Leland was "the founder of a great school of antiquarian studies," without whose pioneer work "Camden and Stow and others of his successors could scarcely have given us works of so complete and detailed a nature as they did."

<sup>23</sup>Kendrick, British Antiquity, 48-49, 56, 63.

<sup>24</sup>Dorsch, "Two English Antiquaries," 21.

<sup>25</sup>The best biography is that by Sidney Lee in the Dictionary of National Biography. Lee based his account on such earlier works as Thomas Hearne, ed., The "Itinerary" of John Leland the Antiquary, 9 vols. (Oxford, 1710-12); and William Huddesford, The Lives of Those Eminent Antiquaries (Oxford, 1772). Lucy Toulmin Smith, ed., The "Itinerary" of John Leland, 5 vols. (London, 1906-10), is also a fine

example of scholarship and leaves little further to be done towards placing Leland's life and industry before the world.

<sup>26</sup> Momigliano, "Ancient History," 313-314.

<sup>27</sup> Robin Flower, "Laurence Nowell and the Discovery of England in Tudor Times," Proceedings of the British Academy 21 (1935):47-48.

<sup>28</sup> Reprinted in Smith, "Itinerary", 1(1906): xxxvii-xlii. Bale, in the original publications, added his own copious annotations. Thomas Hearne printed the manuscript of the Laboryouse Journey itself for the first time in his 1710-12 work.

<sup>29</sup> Smith, "Itinerary", 1:xlii-xliii.

<sup>30</sup> Ibid., 1:xlii.

<sup>31</sup> Levy, Historical Thought, 129-130. Kendrick, British Antiquity, 60-63, regards Leland as a first-rank antiquary whose influence is far-reaching.

<sup>32</sup> Smith, "Itinerary", 1:xviii-xix.

<sup>33</sup> London, BL, Cotton Julius MS, 106, fols. 64, 67; also see T. C. Skeat, "Two 'Lost' works by John Leland," English Historical Review 65 (1950):505-508.

<sup>34</sup> Smith, "Itinerary", 1:xli.

<sup>35</sup> Ibid., 5(1910): end maps depicting Leland's routes.

<sup>36</sup> Ibid., 1:30-31. <sup>37</sup> Ibid., 2(1907):40-52.

<sup>38</sup> Kendrick, British Antiquity, 56.

<sup>39</sup> There were several editions of the Perambulation issued. The first was published in 1576; the second, in 1596; the third lacked a date; a fourth edition came out in 1656; and a fifth in 1826. Only the first two of these (both published in the author's lifetime) have any real significance for scholars. All of the successive editions were essentially reprints of the 1596 text with various additions at the whim of the publisher.

<sup>40</sup> Flower, "Laurence Nowell," 47-73; Fussner, Historical Revolution, 180.

<sup>41</sup> Wilbur Dunkel, William Lambarde (New Brunswick, 1965), 38.

<sup>42</sup> William Lambarde, Archaionomia, sive De priscis Anglorum legibus Libri (London, 1568). This is noteworthy as the first published collection of Anglo-Saxon laws. Lambarde studied under Laurence Nowell at Lincoln's Inn, where he was highly esteemed second only to his master. They later worked together with manuscripts. The relationship ended with Nowell's trip to France in 1567. (Flower, "Laurence Nowell," remains the main source of information on this relationship). The majority of Lambarde's other works are also important as contributions to legal rather than historical or chorographic literature. The Eirenarcha (London, 1581), for example, codified the duties of the Justice of the Peace, an office held by Lambarde. His Archeion was published posthumously by his

grandson; it is an elegant short history of the English High Courts of Justice. Some of Lambarde's other dissertations upon legal theory and practice have been assembled in Conyer Read's William Lambarde and Local Government, including an edition of Lambarde's "Ephemeris," and twenty-nine charges to juries and commissions. See William Lambarde, Archeion, eds. Charles H. McIlwain and Paul L. Ward (Cambridge, 1957), which marks the first edition of this work put out since 1635; also see Conyers Read, ed., William Lambarde and Local Government (Ithaca, 1962).

<sup>43</sup> Rudolf Gottfried, "Antiquarians at Work," Renaissance News 11 (1958):114-120, has shed some light on Lambarde's methods of composition. William Lambarde's Topographical Dictionary (London, 1730) was probably put together between 1566 and 1570; see Flower, "Laurence Nowell," 59.

<sup>44</sup> Lambarde, Topographical Dictionary, 1.

<sup>45</sup> Lambarde, Perambulation, 1596 ed., in the "Dedication to Sir Wotton," dated 1570.

<sup>46</sup> Levy, Historical Thought, 138.

<sup>47</sup> Lambarde, Topographical Dictionary, 213.

<sup>48</sup> Lambarde, Perambulation, 1576 ed., 442.

<sup>49</sup> Thomas Philipot, Villare Cantianum: or Kent Surveyed and Illustrated (London, 1659), 163.

<sup>50</sup> Lambarde, Perambulation, 1576 ed., 388-415.

<sup>51</sup> Lambarde, Perambulation, 1596 ed., AA6.

52 Ibid., Ul.

53 Lambarde, Perambulation, 1576 ed., 317-320.

54 Lambarde, Perambulation, 1596 ed., X6, DD5.

55 John Nichols, Bibliotheca Topographica Britannica,  
10 vols. (London, 1780-1800), 1(1780):525-526.

56 That the respect was mutual is evident in the fact  
that Lambarde called Camden "the most lightsome Antiquarie  
of this age"; Lambarde, Perambulation 1596 ed., B2.

57 Nichols, Britannica, 1:512.

58 Lambarde, Perambulation, 1576 ed., CCC. In the  
1596 edition the last word is changed from "antiquities" to  
"Topographie."

59 F. J. Levy, "The Making of Camden's Britannia,"  
Bibliotheque d'Humanisme et Renaissance 26 (1964):78.

60 R. J. Shoeck, "Early Anglo-Saxon and Legal  
Scholarship in the Renaissance," Studies in the Renaissance  
5 (1958):104.

61 Levy, "Camden's Britannia," 70; Denys Hay,  
Annalists and Historians (London, 1977), 150, goes so far as  
to state that Camden was "Far and away the most important  
figure in England before the seventeenth century."

62 Levy, "Camden's Britannia," 76.

63 Camden, Britannia, 1610 ed., preface, "The Author  
to the Reader".

64 Camden used Leland's notes as transcribed by Stow.  
A jealous fellow herald, Ralph Brooke, unjustly accused

Camden of plagiarizing Leland in Discoverie of Certaine Errors . . . in the much-commended "Britannia" (London, n.d.). Camden refuted the charge in the Preface to the 1600 edition of the Britannia.

<sup>65</sup> Denys Hay, "History and the Historians in France and England during the Fifteenth Century," Bulletin of the Institute of Historical Research 35 (1962):127.

<sup>66</sup> Levy, "Camden's Britannia," 89. The Elizabethan Society of Antiquaries prospered into the first decade of the seventeenth century. Many of the Society's papers survived and have been printed. Although typical antiquarian concerns, such as those involving topography, were discussed at the Society's meetings, increasingly the centre of attention was focused on the origins of the Office of Herald in England and on the antiquity of the Inns of Court. This possibly reflected the interests of the large number of Society members who were lawyers belonging to the Inns of Court; Evans, Society of Antiquaries; H. K. Stevens, Learned Societies and English Library Scholarship (Columbia, 1913); Richard Gough, "An Historical Account of the Origin and Establishment of the Society of Antiquaries," Archaeologia 1 (1770):ii-xxxix; Linda Van Norden, "Sir Henry Spelman on the Chronology of the Elizabethan Society of Antiquaries," Huntingdon Library Quarterly 13 (1949-50):131-160; R. J. Shoeck, "The Elizabethan Society of Antiquaries and Men of Law," Notes and Queries, n.s., 1(1954):417-421; R. L.

Schuyler, "The Antiquaries and Sir Henry Spelman,"  
Proceedings of the American Philosophical Society 90 (1946):  
91-103.

<sup>67</sup> Kendrick, British Antiquity, 144-148; Fussner,  
Historical Revolution, 230-252; Levy, Tudor Historical  
Thought, 144, 154-155.

<sup>68</sup> Camden, Britannia, 1610 ed., 28-34.

<sup>69</sup> Ibid., 371.

<sup>70</sup> From Camden, Britannia, trans. and ed. Edmund  
Gibson, 2 vols. (London, 1722), 1:215.

<sup>71</sup> Kendrick, British Antiquity, 108-109, states that  
Camden's attack caused the most damage to the belief in the  
Brute fable. It was Polydore Vergil's Anglia Historia  
(London, 1534) that first attacked this legend; see Denys  
Hay's Polydore Vergil: Renaissance Historian and Man of  
Letters (Oxford, 1952).

<sup>72</sup> Camden, Britannia, 1610 ed., 10-22.

<sup>73</sup> Ibid., 65, 66, 71, 75, 88, 99-106. The source of  
these coins was the collection of Sir Robert Cotton, the  
famous antiquary, who had been Camden's pupil at Westminster  
School and a member of the Society of Antiquaries. Cotton's  
collection of antiquities of all kinds included ancient  
manuscripts, and constituted a library which rivalled that  
of Sir Thomas Bodley in Oxford. In the Britannia, Camden  
acknowledged his large debt to Cotton. The tradition of  
collecting Roman coins was much favoured by many fifteenth-

century princes and humanists such as the Medici at Florence and Niccolo Niccoli; see Roberto Weiss, "The Study of Ancient Numismatics During the Renaissance," Numismatic Chronicle, ser. 6, 8 (1968):179.

<sup>74</sup> Camden, Britannia, 1610 ed., 349.

<sup>75</sup> Ibid., 182. <sup>76</sup> Ibid., 393.

<sup>77</sup> Ibid., 7, 437, 583, 639.

<sup>78</sup> Levy, Tudor Historical Thought, 159.

<sup>79</sup> Quoted in F. Haverfield, "Cotton Iulius Fvi. Notes on Reginald Bainbrigg of Appleby, on William Camden and on some Roman Inscriptions," Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society, n.s., 11 (1911):364.

<sup>80</sup> Camden, Britannia, 1610 ed., A4.

<sup>81</sup> Hay, Annalists and Historians, 151.

<sup>82</sup> Stuart Piggott, William Camden and the Britannia," Proceedings of the British Academy 37 (1951):208-209.

<sup>83</sup> Sir Maurice Powicke, "William Camden," English Studies, n.s., 1 (1948):67-84.

<sup>84</sup> Fussner, Historical Revolution, 175, 300.

<sup>85</sup> John B. Black, The Reign of Elizabeth (Oxford, 1959), 283.

<sup>86</sup> Kendrick, British Antiquity, 150.

<sup>87</sup> John Stow, in his address to the mayor, commonality, and citizens (which is included in the Preface to the second edition of his Survey of London), states that

since the publication of Lambarde's Perambulation, he (Stow) had been informed of similar projects for the other counties. It was partly due to this reason, and partly to "giue occasion and courage to M. Camden to increase and beautify his singular work of the whole," that he had "attempted the discovery of London, my native Soyle and Countrey"; John Stow, Survey of London, 2d ed., rev. (London, 1603), xcvi.

### CHAPTER III

#### JOHN NORDEN AND THE "SPECULUM BRITANNIAE"

This our Britannia, for the fertility and fruitfulnes thereof, matcheth the best. . . . And above all other blessings it hath greatest cause to rejoyce in the free use of the true knowledge of Christ, wherein it triumpheth above all other kingdomes or Countries of the world. . . . Our Englande may be truely called Olbion a happie Countrie.<sup>1</sup>

In the late sixteenth and early seventeenth centuries more and more men were turning to chorography as a vehicle for extolling the virtues of Britain as a whole, or of their own native regions in particular. The common motive--glorifying Britain--was now plainly exhibited for all to see. By the time John Norden wrote the above words (1593) in his regional study of Middlesex, which was the first instalment of his projected survey of many of the individual shires of Britain, the publication of Camden's Britannia had already established chorography next to history amongst the esteemed scholarly pursuits.

The first chorography to follow the Britannia came from the hands of Norden. It so happens that this man also proved to be the most prolific writer of chorographic literature to follow Camden. His work, with its origins in late Elizabethan times, connects the Britannia with the mainstream of topographical-historical literature in the

first half of the seventeenth century. The large amount of material available towards a study of his writings is almost equal to that of all of his successors up to the mid-point of the seventeenth century. The fact that Norden on his own carefully surveyed more than a dozen counties in their entirety warrants by itself the allocation of an entire chapter to his work.<sup>2</sup> Norden is primarily remembered today as a professional surveyor and a writer of devotional, or religious books. However, his life was characterized by frustration, a frustration due mainly to an inability to secure sound financial backing for his most ambitious chorographic project. He was determined to write a series of county chorographies illustrated by small maps, calling the entire project "Speculum Britanniae." Unlike Lambarde, Norden did not envisage a corporate effort, but was determined to undertake the entire work on his own.<sup>3</sup> However, like Lambarde, who had a similarly-ambitious plan but only completed a study of Kent, Norden failed in his scheme and published only his studies of Middlesex (1593) and Hertfordshire (1598).

Little is known of the particulars of Norden's life. Born in 1548, the son of a Somerset yeoman, he entered Hart Hall, Oxford, in 1564, taking his B.A. in 1568 and M.A. in 1573. After graduation he found employment as a private secretary to Lady Ann Knyvet in Wiltshire.<sup>4</sup> In 1581 he travelled to London, intending to establish a career in that

city. This journey is significant as it is quite possible that Norden's original interest in topography was aroused during his chance encounter during his progress with Don Antonio, the pretender to the throne of Portugal, who had sought refuge in England. Norden recorded this meeting in these words:

At the arrivall of Don Antonie, the supposed King of Portugall in the weste partes of this Realme for refuge. It so fell that I traveyled certayne dais iourneis, in companie of him, and his followers who, as they were for the moste part verie learned, so seemed they desirous to enquire and learne the etymon and significations of the names of towns, Rivers, howses, Bridges, and what so ever thinges of note, by which we traveyled.<sup>5</sup>

Norden may have undertaken the role of a guide for these refugees from abroad, at least for a few days. This role would not have been incompatible for a man thoroughly familiar with this part of the country, having been born and raised here. Little else is known about his life up to the time he became involved in chorographic studies except that he had already trained himself as a land steward and estate surveyor, and that in matters concerning religion he was "discontented with the organization and still more with the ministers of the new Reformed Church."<sup>6</sup> During this period he apparently acquainted himself with Camden's Britannia, Christopher Saxton's Atlas, and with several other works.<sup>7</sup> At the same time he was busy collecting rubbings of old inscriptions and gathering other antiquarian material.

There used to be some doubt as to whether John Norden the chorographer, and John Norden the writer of devotional books, were one and the same. Anthony à Wood believed that there was only one writer by that name. However, Charles H. Coote, contributor of the Norden biography to the Dictionary of National Biography, noting that two separate works were published in 1597 under Norden's name, The Mirror of Honour and A Preparatiue to his Speculum Britanniae, assumed (strangely enough) that one man could not have written two such dissimilar works in the same year. He therefore reasoned that there must have been two John Nordens. This viewpoint, with no solid contemporary evidence to warrant it, soon came under attack. It was eventually laid to rest by the investigations of A. W. Pollard, the results of which were published in his article establishing the unity of this supposed dual existence.<sup>8</sup> An examination of the prefaces and dedications in several of Norden's devotional works supports Pollard's position. For example, in the Dedication to An Eye to Heaven in Earth, Norden refers to his "ordinary imployments," those involving surveying, and states that he is not a "Divine":

If it should be demaunded . . . why I would venture to undertake a matter of this subject: so farre (in opinion) differing from my ordinarie imployments: It may please you to conceive that it is not altogether contrarie to my publike professions, as being a Christian, though no professed Divine.

Helping to eliminate any remaining doubt is the Dedication to his last religious work, A Good Companion for a Christian where his son states: "my deceased Father very often survaid the Kings Lands, but now by me he humbly tenders himselfe to be survaised by you."<sup>10</sup>

It was after his arrival in London in 1584 that Norden began composing his devotional books and pamphlets.<sup>11</sup> The decision to do so was the result of two factors. First, his devotional works were intended to provide a way of earning money in order to support the study of law which he undertook while in London.<sup>12</sup> The second factor was directly related to the first. Apparently unsuccessful in his pursuit of a career in the law (there is no other reference in his works to the law, and his name is absent from any of the registers of the Inns of Court) and unable to secure patronage, Norden sank into a state of melancholy which, paradoxically, appears to have strengthened his faith in an eventual heavenly reward, one transcending his material privations in this world.<sup>13</sup> This, along with his already-established religious zeal, spurred him on to write devotional books. Although some of these achieved considerable popular appeal, his career as a religious author proved to be singularly unsuccessful.

It is not entirely clear why Norden now chose to direct more attention to chorography and surveying as a means of livelihood. Lynam suggests that, in the true

Elizabethan antiquarian spirit, his travels about the countryside as a surveyor and lawyer had reinforced his appetite for chorography.<sup>14</sup> It may have been more likely, however, that it was Lord Treasurer Burghley, to whom Norden often appealed for help, who suggested that he attempt this undertaking.<sup>15</sup> Since Burghley resided in Northamptonshire, this led Norden to complete in manuscript, by 1591, a description and map of that county, one which included a Dedication to the Lord Treasurer.<sup>16</sup> It is here that Norden acknowledges Burghley's assistance and expresses his own desire to describe all the other shires similarly. Apparently, he had originally conceived of this venture as basically a mapmaking project in the tradition of Saxton's Atlas. However, the chorographic prose descriptions which were to accompany his maps gave his work that added dimension lacking in Saxton's Atlas.<sup>17</sup>

Burghley, upon receiving a manuscript copy of the survey of Northamptonshire, helped Norden procure the Privy Council's endorsement of his project. Encouraged by this action, Norden proceeded to survey Middlesex, publishing a description of this shire in 1593. The Dictionary of National Biography states that this work was the result of an Order in Council given by the queen, but it is more probable that Elizabeth issued the order after she had seen a manuscript copy of this survey. Shortly afterwards, in July, 1594, Burghley issued from Greenwich another order

recommending to favourable public notice "The bearer, John Norden, who has already imprinted certain shires to his great commendation, and who intends to proceed with the rest as time and ability permit."<sup>18</sup> Norden's dedication of Middlesex to the queen had helped him gain her attention and approval for his project, which he then entitled "Speculum Britanniae." Financial aid, however, towards the publication of this particular work came from a different source, namely Sir William Waad, Clerk to the Privy Council and a patron of geographical enterprise.<sup>19</sup>

The first hand observations recorded in Middlesex testify to Norden's familiarity with his subject. The first few pages are intended to serve as an introduction to the whole "Speculum Britanniae." Here we find an etymological discussion concerning the origins of the name "Britain," followed by an abbreviated historical review of the early inhabitants of the island, commencing with the Angles and terminating with William the Conqueror. Norden revealed his detailed knowledge of the sources of British history at various points, acknowledging his debt to Ptolemy, Gildas, Polydore Vergil, Camden and others, either in the text or by citing these sources in the marginalia. At one point he even went out of his way to cite Lambarde's expertise in Saxon matters, stating that "Lamberde" is "most expert in the Saxon toung."<sup>20</sup>

The treatment of Middlesex itself opens with a rationale for beginning the "Speculum Britanniae" with a study of this particular shire:

Having thus briefly touched the generall, I purpose to proceede to the particular descriptions of this our Britannia: wherein (imitating the artificial Painter, who beginneth alwaies at the head, the principall part of the bodie:) I thought it not unfit to begin my Speculum Britanniae with Myddlesex, which above all other Shyres is graced, with that chiefe and head Citie London: which as an adamant draweth unto it all the other parts of the land, and aboue the rest is most usuallie ferquented with his Maiesties most regall presence.<sup>21</sup>

This is followed by a history of the ancient tribe of the Trinobantes, and by an outline of the "lymites and principall bounds of Myddlesex" which centres on a description of the major rivers which flow through the region. The fertility of the soil and the produce are mentioned next: "the soyle is excellent, fat and fertile and full of profite: it yeeldeth corne and graine, not onelie in abundance, but most excellent good wheate. . . ."<sup>22</sup> The discussion here, however, is not of a technical nature. Norden, like the other contemporary chorographers, did not base his observations on what we would consider as scientific testing or data. The closest he comes to this is to distinguish, for example, between clay and other types of soil; i.e., he relies on readily obtainable information based on visual examination, the accounts of landowners, etc.

The next section is concerned with the ecclesiastical and civil government of the shire, listing the now almost standard information--hundreds, market towns, "houses of law," battles, parks, named hills, and "olde and auncient highwaiies now unaccustomed." The remainder of the book is devoted to an alphabetical "index" in a form similar to Lambarde's Topographical Dictionary. It identifies the cities, towns, villages and "houses of name." Quite often the only information given for one of these entries is the map location of the place named. Other entries contain etymologies, historical events, and antiquities such as inscriptions found on monuments. In several instances these have been accompanied by Norden's sketches of the coats of arms of prominent families. In this regard Norden was an innovator in chorography; he thought it a useful practice to record the inscriptions and coats of arms found on funeral monuments, a practice which had previously been confined to the manuscript collections of the heralds. He was careful to exclude, in some cases, material already found in Camden's Britannia. The section on London, nearly ten pages long, is perhaps the most interesting one. According to Norden, London is:

. . . the most famous Citie in all Brytaine, which Erasmus upon the Proverbe Rhodii Sacrificium, saith, is deducted of Lindus a citie of the Ile of Rhodes, Stephanus calleth it Lyndonium . . . Leland taketh it to be Trenouant, new Towne, for that in the British tong signifieth a towne: M. Camden seemeth, in some sort, to yeelde that it should be called London or Londinum of

the British word Lhong, which signifieth ships or shipping, in regarde that our Thamis<sup>23</sup> yeeldeth such apt accesse for ships euen to the citie.

As for the founding of London, Norden's opinion seems to follow Camden's skepticism on the Brute legend:

There is a great varietie among writers, who first founded this Citie: Some will haue Brute the Troian to be first builder of it, but Brute, and his historie, is meereley reiected of manie in our daies: It was recdified by Lud, in the yeere of the worlds creation 5131 who builded the wals about it, and erected Ludgate, who also changed the name of Trenounant into Luddestowne, now London.<sup>24</sup>

Then Norden described London as "A Citie of great Marchandize, populous, rich, and beautifull."<sup>25</sup> In like manner he later portrayed the native inhabitants as being "faithfull, loving and thankfull."<sup>26</sup>

Norden focused his history of the city on events such as the fiery destruction of the city by the Danes and its eventual reconstruction (both events occurring during the reign of King Alfred). Upon establishing the date of the selection of the city's first mayor (1209), Norden slipped smoothly into an account of contemporary sixteenth-century London politics which featured a list presenting the city's wards and parishes. Prominent landmarks and important buildings such as the Royal Exchange, St. Paul's, the gates of the city, Black Friars Castle, and Leaden Hall were described from a relatively intimate personal viewpoint, interspersed with the sort of

detailed observations expected of a man who was a surveyor by profession:

On the east part of the Citie, is a most famous and strong Castle, called the Tower of London, the maine tower whereof, some suppose to be builded by Iulius Caesar. It is strong and ample, well walled and trenched about, beautified with sundrie buildings, semblable to a little towne.<sup>27</sup>

While London is omitted from the manuscript version of Middlesex, Norden conversely left out several sections found in his manuscript from the published work. The manuscript dealt, for example, with the means of livelihood of the population, while the printed work did not:

Such as live in the inn countrye, as in the body or hart of the shire, as also in the borders of the same, for the most part are men of husbandrye, and they wholy dedicate themselves to the manuringe of their lande. And theis comonlye are so furnished with kyne that the wife or twice or thrice a weeke conveyeth to London mylke, butter, cheese, apples, peares, frumentye, hens, chyckens, egges, baken, and a thousand other country drugges, which good huswifes can can frame and find to gette a pennye. And this yeldeth then a lardge comfort and releefe. . . .<sup>28</sup>

Occasionally, Norden also extended a warning concerning some of London's more inhospitable tracts, as in his description of Pancras, a place "forsaken of all . . . usually haunted of roages, vagabondes, harlettes, and theeves," admonishing the reader to "Walke not ther too late."<sup>29</sup> In yet another place he exhibited a tendency common throughout the seventeenth century to most antiquaries, an interest in unusual or strange discoveries:

Not farr from this place was founde the bone of a man of an admirable magnitude of late yeares, by a man

laboringe in a gravel pitt, as it is reported, the vew thereof I haue desired, but it is broken and spoyled (as they saye).<sup>30</sup>

Elizabeth's interest in Norden's project offered some hope to him, so that by 1594 he had completed a chorographic description of Essex. He sent manuscript copies of this work to Burghley and to another potential patron, the Earl of Essex. These people, however, made no offer of financial subsidies. The result was that this study remained unpublished until 1840.<sup>31</sup> Essex was a much less ambitious endeavor on Norden's part than Middlesex. Except for the general section on England as a whole, this work (like all of Norden's future chorographies) follows the plan of Middlesex: general remarks on the soil, produce, and climate, tables of fairs and rivers, a map of the county, and an alphabetical index of places. An interesting sidelight to this list is Norden's comparison of parts of England to the biblical lands. This can be attributed to his religious fervour. In Essex, for example, the shire is called the "englishe Goshen, the fattest of the Lande: comparable to Palestina, that flowed with milke and hunnye."<sup>32</sup>

This religious enthusiasm, in conjunction with his need for money, compelled Norden to produce several more didactic works over the next few years. In 1596 there appeared A Progresse of Pietie and A Christian Familiar Comfort, and in 1597 The Mirror of Honour. In the last work

he reflected on the type of relationship that should exist between a patron and a writer, revealing the bitterness of his own experiences:

It soundeth neerest to true nobilitie, to give plaine demonstration of his purpose, towards endevoring followers, either to encourage or discourage them, that they consume not more yeres in mourning for time lost in vaine hope, then in recounting the comforts received by best endevours. Fayre words may bee compared to a pleasing sunne, which warmeth onely, but clotheth not, nor feedeth the bodie: and as the sunne shineth upon all, so fayre words are free to all, from all. But relieving deeds are the substance, wordes but the shadow,<sup>33</sup> performance is the fire, and promise but the smoake.

The Mirror of Honour, it should be noted, was directed at the English soldiers who had returned from war in the Netherlands, in Ireland, and against Spain, and was intended to reform their morals.

In 1594 Norden perambulated Surrey, Sussex and Hampshire, perhaps also visiting the Channel Islands and the Isle of Wight. The textual descriptions of these areas were not published due to his continuing inability to enlist a patron. Some of the maps, though, were engraved and printed on their own. In desperate need of money, Norden sent, in 1595, a composite manuscript volume to the queen entitled A Chorographicall discription of the Severall Shires and Islands of Middlesex, Essex, Surrey, Sussex, Hamshire, Weighte, Gernesey, and Jarsey, performed by the traveyle and veiwe of John Norden, 1595.<sup>34</sup> The descriptions of Middlesex and Essex were abridgements of those previously written.

Maps of the three islands were only accompanied by "A brief commemoration." The description of Sussex, Hampshire and Surrey may have been abridged from a fuller text, but, except for Surrey, evidence for this is lacking.<sup>35</sup>

Obtaining little reward for these efforts from his monarch, in 1596 Norden issued A Preparatiue to his "Speculum Britanniae." This was a pamphlet designed to counter criticisms of his earlier chorographies by various learned gentlemen. In it he reminded his critics of his great task: "I the most unworthye, being imployed (after the most painful and prais worthie labours of M. Christopher Saxton) in the redescription of England."<sup>36</sup> He also was not afraid to remind Lord Treasurer Burghley, in the Dedication, of the money he had expected long ago.<sup>37</sup> The nature of this pamphlet indicates that Norden's accuracy had been attacked on several counts, and that doubts were expressed about the way he drew his maps. Norden responded to these charges in the following fashion:

Some thinke it a necessarie to distingnush as well the Unites of euery parish, as of euery hundred. . . . As touching the conceite of some that would haue the distinction of the limits of euery parishe, I holde it not so needful as impossible, and I thinke the most of iudgement will affirme the same.<sup>38</sup>

In general, this work laid down a series of rules for interpreting town names, thus aiding both the historian and the geographer. By stressing the necessity of examining the

site Norden also pointed out the importance of history to the geographer.

Burghley again responded by issuing a letter the following year to all Justices of the Peace, "Requiring them to aid the bearer, John Norden, gent., who has very diligently and skilfully, travailed to the more perfect description of the several shires of the realm. . . ." <sup>39</sup> This was, however, as Pollard states: "a precarious method of endowing topographical research." <sup>40</sup> Norden made clear in a handwritten appeal included in the queen's presentation copy of the next instalment of the "Speculum Britanniae," The Description of Hertfordshire (which he published at his own expense in 1598), that he had spent over a thousand marks in five years of work on his chorographic activities. He went on pathetically to sign himself: "Quid ego miser vltra, Your Maiesties most loyall distressed subject, J. Norden." <sup>41</sup> Nevertheless, despite the fact that Burghley had also reminded Elizabeth of her obligations to her surveyor, she was still unwilling to give Norden the satisfaction he sought.

The Description of Hertfordshire appeared with a Latin dedication to Edward Seymour, the Earl of Hertford. The manuscript originally contained an English dedication to Burghley. Perhaps Norden thought Burghley could persuade the queen to act on his behalf.<sup>42</sup> But Burghley died in

1598, before the work was published, making the subsequent change in the Dedication necessary. This proved to be Norden's only other chorography besides Middlesex to be published during his lifetime.<sup>43</sup> The contents and their arrangement follow a pattern similar to that of the surveys of the other shires. The boundaries were defined, the general topography of the area, and the different types of soil were discussed; while the "ayre" (for the most part) was found to be "very salutarie." Listed next were the shrieval and ecclesiastical divisions of the county, the market towns, the fairs, the beacons, and so on. This in turn was followed by the standard alphabetical index, or table, which contains the etymological derivations of place-names and other items of historical and topographical interest. This index fills over half of the description. Most of the places named here are found on the map, marked by the symbols in the map's key for market towns, villages, castles, and religious places.<sup>44</sup> The remainder of the work consists of a short alphabetical table of the houses of the nobility and the gentry, with grid references.

In general, Norden's methodology varied little from his past investigations and therefore the results were not particularly extraordinary. A later-day investigator of Hertfordshire, Sir Henry Chauncey, has labelled Norden as "conceited" for reprimanding Camden over at least one issue,

or point.<sup>45</sup> Other than this, perhaps the only notable feature is Norden's interest in antiquities, as revealed in his description of the ancient Roman city of Verulamium:

The brasse monies whereof I haue much but seeme farre more, Import the antique names, and pictures, not only of sundry Emperors, but of some of their Empresses also . . . through the fury of the Saxons and Danes it [Verulamium] was sackt and subuerted. . . . [At length] one Eadmere [abbot of the Monasterie of St. Albans] . . . found sundry Idolls, and aulters not a fewe, superstitiously adorned for the honour of these unknown gods of the Pagans, some of these Idols were of pure golde, some of other metall, and withall he founde great store of householde stiffe, and other thinges witnessing the glory both of the citie and the cittizens of the same. Besides sundry pottes of gould, brasse earth, glasse and other metall, some frawght with the ashes of the dead, some with the coyne of the auncient Britons and Romane Emperours. And in a stone were found certayne Brytish booke<sup>46</sup>s, whereof one imported the historie of Albans martyrdome.

The publication of Hertfordshire did little to relieve the author's financial burden. So in 1599 Norden made an appeal, this time to the Earl of Essex in A Prayer for the Prosperous Proceedings of the Earle of Essex in Ireland, in which Essex is compared to Moses, David, and Gideon. Norden, a fanatical anti-Catholic, evidently looked to Essex, who was regarded by the Puritan party as the champion against the succession to the Crown of the Infanta of Spain, for support. Essex's rebellion in February, 1601, ended any hope that the nobleman might have patronage to offer Norden. When Norden applied to Burghley's son, Sir Robert Cecil, a notorious enemy of Essex, for a renewal of his warrant to survey, it was refused. He brought even

greater disfavour upon himself by his attempt to persuade the queen of the existence of a second John Norden, purported author of the appeal to Essex.<sup>47</sup>

Norden finished several more parts of his huge project, none of which were published in his lifetime. A survey of Cornwall and a revised version of the survey of Northamptonshire were both completed about 1610; there are later references also to a manuscript description of Kent (which could have accompanied a version of his map of that county published in the 1607 edition of Camden); and surveys of Norfolk and Suffolk have been attributed to him.<sup>48</sup> But the total scheme was abandoned, Norden perhaps eventually realizing that it was too monumental an undertaking for one person. Of these works, his study of Cornwall is the most elaborate and the longest. Norden had finally been able to secure permanent appointment as Surveyor of the Duchy of Cornwall (in 1605), and it is possible that the new monarch, James I, commissioned Cornwall from him. In the manuscript which he presented to James, Norden described the work as:

A member of a greater body, your Majesty being pleased to further the perfection of the reste of the lineaments. Might it stand with your Majesty's good opinion and favour to enable me to proceed in the residue of your Majesty's Kingdom (being by the former travaille and by tedious attendance for my promised recompense, merely undone) such shall be my loyal care<sup>49</sup> and faithful deligence, as nothing shall be omitted.

The work begins with a general history of Cornwall and its situation, followed by a particular description of

each hundred. Norden started at Land's End and arranged his material alphabetically. In this study he was much less skeptical of the Brute legend than he was elsewhere, and now appeared to share Lambarde's view that there might be some truth in Geoffrey:

But howsoeuer it stande with the opinion of some to disable this historie, and to goe about to proue it, and the whole process thereof to be but fayned, ther be manie probable inducementes to make me more credulous of the veritie therof: The generall acceptance of the historie, so manie generations: Brutes pedigree: . . . And sundrye other actes, and stronge probabilities of the truth of this historie haue bene lefte vnto this age from the beginning. If all be fayned, what proof can ther be, of the truth of any history?<sup>50</sup>

He was even credulous of certain other legends, e.g., the story that "a great part of this Promontorie [Cornwall] is swallowed vp of the deuowring sea, namelye, the Countrye of Lioness and other Lande." Yet his credulity was not only based on the fact that he liked the story but also because "the sea, ayded by tyme and tempests, is euery where a powerfull adversarie to the Land, and in moste places the Lande weake to resist.<sup>51</sup>" In other words, it rested on both common sense and on personal observations. This is a key point. Although a considerable portion of this chorography is virtually a paraphrase of Richard Carew's Survey of Cornwall, Norden included a fair amount of his own original observation. For example, in a manner reminiscent of Giraldus, he wrote from personal experience of the "baser sorte of people": "manie of them are of harshe, harde, and

of no such civile disposition, verie litigious, muche inclined to lawe-quarrels for small causes." Or, at another point in the text, he described a peculiar stone which he stumbled upon in the course of his travels; and, at yet another juncture he reflected upon his witnessing, at Trewardrayth Bay, the taking in or a catch of pilchard, "this silly small fishe."<sup>52</sup>

At times Norden included material which Carew had not noticed, such as Trethevy Quoit, one of the finest neolithic tombs in Cornwall.<sup>53</sup> Although he did not investigate the site as thoroughly nor as scientifically as would a John Aubrey or Edward Lhuyd in the latter part of the century, his description is nevertheless detailed, and is complemented by a handsome illustration. The entire book, in fact, contains thirteen drawings of the various "curiosities" of Cornwall. After becoming Crown Surveyor, Norden was obliged to illustrate his surveys with architectural drawings, bird's-eye views of the landscape, and the like. As for the maps which accompanied the text, there were originally ten manuscript maps in total--a general map of Cornwall and a separate map for each hundred.<sup>54</sup> The alphabetical table, as usual, occupied most of the book. A typical entry reads as follows:

Careck rode, f. 18. A Rode in Falmouth hauen,  
where the deepenes is suche as a Carecke,  
the greatest ship of Burden, may ryde;  
wherof it taketh name Careck rode.

Or, from the same section:

Pensignance, e. 16. A howse and Mannor of  
Richard Carew of Antony, esquire; but  
his moste abode is at Antony.<sup>55</sup>

For the last twenty years of his life Norden was finally able to achieve wide recognition as a surveyor in both public and private employment. Early in James's reign Norden moved to Hendon, near Acton in Middlesex, to continue his surveying. Relatively few details are known about his family, except that in the years 1616 and 1617 he was assisted in his work by his son.

Norden's work as a surveyor was considerably more extensive than that of Saxton. In 1600 he was acting as Surveyor of the Crown Woods in Berkshire, Surrey, Devonshire, and elsewhere.<sup>56</sup> Also important as an example of his work as an estate surveyor is his survey of the estates of Sir Michael Stanhope on the coast of Suffolk (1600 and 1601), drawn on twenty-eight sheets. These displayed all the usual elements of the surveys of the period: waterways, houses, churches, woodlands, meadows, field boundaries, and the names of owners. Norden paid special attention to the coastline in order to show and account for an area of beach, part of the manorial property. His exceptional interest in erosive processes, e.g., beach erosion, is displayed both here and in some of his chorographic works (e.g., in Cornwall).<sup>57</sup>

After having obtained the Surveyorship of Cornwall Norden surveyed the Windsor area for the king.<sup>58</sup> For this he received from James a gift of £200 in acknowledgement of a vellum folio manuscript. This work is notable for its beautifully-coloured maps, including a "Plan or Bird's-Eye view of Windsor Castle from the north." Of even greater interest is The Surveyors Dialogue, an important textbook for his profession, which was published in 1607. This last work was primarily concerned with demonstrating the importance of surveying. It was dedicated to Cecil, with the commendation that the surveying of land will increase the revenue thereof. It consists of five "books" couched in the form of a dialogue between a surveyor and several other people. Norden constantly appealed to the past and to scripture for support in his plea for the necessity of surveying. Referring to Joshua 18., his surveyor says: "Joshua commanded the children of Israel, that euery Tribe should choose out three men, that he might send them thorow the land of Canaan, to view, survey, and to describe it."<sup>59</sup> This book, aside from ending with advice that would help to ensure his continued employment (by recommending that an estate survey should be renewed every seven to ten years), laid down the ideal relationship between a landlord and a tenant with respect to tenures. The second book continued along the same lines; the third, meanwhile, contained a

consideration of graphic surveying in a dialogue between a "Bayly" and a surveyor. The surveyor describes in detail the instruments available to him, such as the plane table, the theodolite, and the chain. It may be conjectured that Norden appreciated the speed with which the plane table could be used, and understood its limitations well enough to be able to make allowance for them when necessary. In his larger county surveys he would in any case be concerned more with correct plotting, not with finding correct areas. Thus, the major error introduced by the plane table would have had little effect on his work. The remainder of the text dealt with the method of keeping a Court of Survey, how to enter and enroll deeds, and with related points of law. Book Four centred on the usefulness of the compass and of tables of computation.

There was also a discussion of the various ways of improving the land. Curiously, at times Norden sounded much like a modern-day conservationist. In a discussion of woodland that is being destroyed for the sake of sowing maize, Norden stated: "But it is to be feared, that posterities will find want, where now they thinke is too much [woodland]." He continued: ". . . Things that wee haue too common, are not regarded: but being deprived of them, they are oft times fought for in vaine." This was followed by a biting commentary on the wasting of woods in Sussex.<sup>60</sup> The advice that he offers with regard to the improvement of

land is quite sound and commonsensical, and in this he is closer to the agriculturalists of the Restoration than to his contemporaries.<sup>61</sup> That his opinions on soil improvement were highly thought of may be concluded from the publication of a fourth edition as late as 1738. Generally, The Surveyors Dialogue is an interesting work in this respect, but as far as surveying per se is concerned it was a statement of things as they were, contributing little to the progress of this science. Norden continued to visit the various regions of England; between 1609 and 1616 he surveyed in detail many of the manors and estates of the Duchy of Cornwall. His travels throughout the countryside and his appeals to authority concerning diverse matters are recorded throughout the Calender of State Papers.<sup>62</sup>

Norden's chorographies and professional surveys should prove to be of considerable interest to local historians because of the wealth of information they contain pertaining to the legal, economic, and social history of early modern England. In more than one instance he examined the manorial customs in addition to topographically surveying the land.<sup>63</sup> Norden, it is thought, was publicly employed for the last time in making a survey of the Manor of Sheriff Hutton in Yorkshire in the summer of 1624.<sup>64</sup> At the end of his career he published England: An Intended Guyde for English Travailers, a thin, small quarto book

containing a series of distance tables for England, Wales, and the English counties, based on the triangular scheme invented by him. This is yet another production of his--a rare road-book of the early seventeenth century--that established a model for others to emulate in the future.

Norden is remembered today as a cartographer as well as a surveyor and religious writer. His popularity and expertise are indicated by the fact that William Camden chose for inclusion in his Britannia (1607 edition) a number of Norden's maps of the various shires. This was in part due to Norden's many cartographic innovations, which included three very important ones: he invented a useful table which gave distances between different towns; he included on his maps road-markings which showed the main roads in each of the shires; and he also invented new representative symbols which he added to his maps. It is as a chorographer that he remains an obscure and neglected figure, and his work has been justifiably criticized on several counts. His knowledge of history was adequate, but it may be significant that he was not a member of the Elizabethan Society of Antiquaries. Yet he knew Domesday Book as well as any man, and his acquaintance and, in some cases, close friendship with some of the major antiquaries of his day proved to be immensely beneficial to his undertakings. But even this has indirectly inspired some criticism of his work, as when Gough suggested that

Norden's Cornwall drew too heavily on Carew's work on that county.<sup>65</sup> At the same time, although he was not nearly as knowledgeable in the various languages as was Lambarde or Camden, he was much less inclined than most of the other antiquaries to indulge in wild etymologies, and, in fact, he did some valuable work in this field. This is especially evident in his chorographies of Northamptonshire and Sussex. In general, the accuracy of his work is rarely assailable. Other evidence for the subjects dealt with by Norden usually tends to verify his own conclusions. He also had a keen eye for detail. This is noticeable in his description of the Manor of Mincinbury in the Parish of Barley, Hertfordshire:

lb. Manor of Mincinbury, Demesne Lands there. The lord holds in his own hands the site of the aforesaid manor, the buildings of which are almost completely in ruins except for a barn which was formerly couered with straw. The barn is spacious and capacious. The aforesaid house is situated among woods, dark and muddy and adorned with neither orchard or garden.<sup>66</sup>

Levy has commented on Norden's "strong visual sense, a sense that was titillated by the vicissitudes of time as shown in ruins." This ability was required of a good chorographer. "Unlike almost everyone else . . . he went beyond describing a ruined castle merely because it was there: Norden almost automatically saw it peopled and thriving, as it must once have been."<sup>67</sup> It is a pity that this man, who contributed so much to several fields of human endeavour, was frustrated again and again in his efforts to secure a patron. But, as Christopher Bateman states:

It has been just matter of complaint in all ages that those who have most eminently distinguished themselves in behalf of mankind have generally met with unworthy treatment, having been forced to an unequal combat with neglect and poverty while living, and even when the envy against their merit has ceased, the memorial of their virtue has been buried in the same grave.<sup>68</sup>

## NOTES: CHAPTER III

<sup>1</sup>John Norden, Specvlvm Britanniae. The first part; an historicall and chorographicall description of Middlesex (London, 1593), 8.

<sup>2</sup>Taylor, Stuart Geography, pays relatively little attention to Norden.

<sup>3</sup>May McKisack, Medieval History in the Tudor Age (Oxford, 1971), 143.

<sup>4</sup>Norden tells us of his employment by Lady Ann in A Pensive Mans Practise (London, 1584), dedication.

<sup>5</sup>John Norden, Speculi Britanniae Pars: the Description of Cornwall, ed. Christopher Bateman (London, 1728), "Dedication to Queen Elizabeth."

<sup>6</sup>Lynam, Mapmaker's Art, 66.

<sup>7</sup>Ibid. In his "English Maps and Map-makers of the Sixteenth Century," Geographical Journal 116 (1950):15, Lynam has suggested that Norden had noted that "Camden's Britannia, being in Latin, was not for the general public; that Saxton's maps showed no roads, had no index by which places could be easily found, often included three or more counties on one sheet; and that both works were large and heavy tomes"; and that this made him "determined to write a series of brief chorographies illustrated by small but practical maps, to be published as duo-decimo books easily

carried in a [pocket]."

<sup>8</sup> A. W. Pollard, "The Unity of John Norden: Surveyor and Religious Writer," Library 7 (1926-27):233-252.

<sup>9</sup> John Norden, An Eye to Heaven in Earth (London, 1619), dedication.

<sup>10</sup> John Norden, A Good Companion for a Christian (London, 1632), dedication.

<sup>11</sup> Norden published some seventeen recorded books and pamphlets between 1585 and 1629.

<sup>12</sup> Norden's dedication of A Sinfull Mans Solace (London, 1585) to Sir Edmund Anderson, the Lord Chief Justice of the Common Pleas, was in fact a blatant attempt to find an influential patron to support his own activities.

<sup>13</sup> Norden, trying out his poetical skills in The Labyrinth of Mans Life (London, 1614), B5, wrote that "melancholy, the mother of best artes, Hath greatest power, (grace absent) in men's hearts."

<sup>14</sup> Lynam, "Maps and Map-makers," 15. Although Lynam and Pollard consider Norden's law career to have been profitable, the opposite was closer to the truth. Even Pollard, "Unity," 241, cannot conceal doubt about this point.

<sup>15</sup> Norden, in the letter to Elizabeth which accompanied the presentation copy of his Speculi Britannia Pars: the Description of Hertfordshire (London, 1598), says that he undertook this survey on the "concellors'" advice.

<sup>16</sup> Norden's original holograph manuscript of his Northamptonshire was located by Y. M. Goblet in the Bibliotheque Nationale at Paris after having been "lost" until then. Northamptonshire was published as Speculi Britannia Pars Alter; or a delineation of Northamptonshire (London, 1720).

<sup>17</sup> Norden, Middlesex, A3.

<sup>18</sup> See London, BL, Egerton MS, 2644, fol. 49.

<sup>19</sup> Pollard, "Unity," 243, suggests that Norden printed Middlesex at his own expense, and made his profit by the gifts he received in return for presentation copies.

<sup>20</sup> Norden, Middlesex, 5. <sup>21</sup> Ibid., 9. <sup>22</sup> Ibid., 11.

<sup>23</sup> Ibid., 27. <sup>24</sup> Ibid. <sup>25</sup> Ibid. <sup>26</sup> Ibid., 36.

<sup>27</sup> Ibid., 37. <sup>28</sup> London, BL, Harleian MS, 570.

<sup>29</sup> Ibid.

<sup>30</sup> Ibid. This part is quoted by W. B. Rye, England as seen by Foreigners (London, 1865), 100.

<sup>31</sup> John Norden, Speculi Britanniae Pars; An Historical and Chorographical Description of the county of Essex, ed. Sir Henry Ellis (London, 1840).

<sup>32</sup> Ibid., 7.

<sup>33</sup> John Norden, The Mirror of Honour (London, 1593), 30-31. This particular work happens to be one of Norden's most profound devotional tracts.

<sup>34</sup> This work remains extant as London, BL, Additional MS, 31853.

<sup>35</sup> R. A. Skelton, "John Norden's map of Surrey," British Museum Quarterly 16 (1951-52):61-62. There is a complete copy of the text of the description of Sussex in the Northamptonshire Record Office (Finch-Hatton MS, 113), apparently made for the antiquarie Sir Christopher Hatton. Norden's place-name derivations here have a curiosity value as the first attempt at analysis of Sussex names; see John H. Farrant, "John Norden's Description of Sussex 1595," Sussex Archaeological Collection 116 (1978):269-275 and, R. V. Turley, "Printed County Maps of Wight 1590-1870," Proceedings of the Hants Field Club and Archaeological Society 31 (1976):53-64.

<sup>36</sup> John Norden, A Preparatiue to his "Speculum Britanniae" (London, 1596), 1.

<sup>37</sup> Ibid., A3.

<sup>38</sup> Ibid., 3, 17. Taylor discusses the Preparatiue in greater detail in Stuart Geography, 46-47.

<sup>39</sup> In Great Britain, Historical Manuscripts Commission, 7th Report, app., 537, 540, there is reference to the letters from the Council directing Norden to map the countryside.

<sup>40</sup> Pollard, "Unity," 245.

<sup>41</sup> Norden asked Elizabeth for her "neuer fayling bountie for relief"; Norden, Essex, xxiv.

<sup>42</sup>The manuscript is in Lambeth Library, London (codex 521).

<sup>43</sup>A British Library copy of Norden's Hertfordshire contains manuscript notes by John Stow.

<sup>44</sup>Norden's use of symbols is discussed in E. M. J. Campbell, "The Beginnings of the Characteristic sheet to English Maps," Geographical Journal 128 (1969):411-415.

<sup>45</sup>Norden, BL, Additional MS, 9062, fol. 237.

<sup>46</sup>Norden, Hertfordshire, 24-25.

<sup>47</sup>Lynam, "Maps and Map-makers," 19-20.

<sup>48</sup>Cornwall, as noted, was published in 1728 and Northamptonshire in 1728; Norfolk as The Chorography of Norfolk: an Historicall and Chorographicall Description of Norfolk, ed. Christobel M. Hood (Norwich, 1938); the references to the survey of Kent are found in Richard Rawlinson, The English Topographer (London, 1720), 79. Also see A. Hassell-Smith and D. MacCulloch, "The Authorship of the Chorographies of Norfolk and Suffolk," Norfolk Archaeology 36 (1977):327-341; and, The Chorography of Suffolk, ed. D. MacCulloch (Ipswich, 1976); also see note thirty-five.

<sup>49</sup>As quoted in Taylor, Stuart Geography, 48.

<sup>50</sup>Norden, Cornwall, 1. The 1728 edition, (cited here) is reprinted by the publisher Frank Graham (Newcastle Upon Tyne, 1966). Bateman's 1728 edition remains true to the original manuscript (London, BL, Harleian MS, 6252).

51 Norden, Cornwall, 1728 ed., 9-10.

52 Ibid., 21, 17, 19.

53 Kendrick, British Antiquity, 162.

54 William Ravenhill, "The Missing Maps from John Norden's Survey of Cornwall," in Exeter Essays in Geography in Honour of Arthur Davies, eds. K. J. Gregory and William Ravenhill (Exeter, 1971); also see Lynam, "Maps and Map-makers," 15-23.

55 Norden, Cornwall, 1728 ed., section on Kirrier Hundred.

56 London, BL, Additional MS, 5752, fol. 306.

57 See Fordham, Notable Surveyors, 13; J. A. Steers, "Orford Ness: A Study in Coastal Physiography," Proceedings of the Geologists' Association, 37 (1926): pt. 3.

58 The survey of Windsor, done in 1603, is entitled A Description of the Honor of Winsor, namely of the Castle, etc.

59 John Norden, The Surveyors Dialogue (London, 1607), 21.

60 Ibid., 214-215.

61 Ibid., 204, contains an example of this.

62 Great Britain, Public Record Office A Calendar of State Papers, Domestic, James I, vol. 45 (1609):518; vol. 50 (1609):566; vol. 48 (1609):544, 553; vol. 55 (1610):616; vol. 58 (1610):642; vol. 67 (1611):97, 108; vol. 68 (1612):121, vol. 71 (1612):158; vol. 84 (1615):340.

<sup>63</sup> An example of this is Norden's Abstract of divers manors landes and tenements latelie graunted unto Prince Charles (1617); London, BL, Additional MS, 6027.

<sup>64</sup> London, BL, Harleian MS, 6288.

<sup>65</sup> Gough, British Topography, I:266. Also see McKisack, Medieval History, 144-145.

<sup>66</sup> Quoted in J. C. Wilkerson, ed., John Norden's Survey of Barley Hertfordshire 1598-1603 (Cambridge, 1974), 32.

<sup>67</sup> Levy, Tudor Historical Thought, 162.

<sup>68</sup> In the introduction to the 1728 edition of Cornwall.

## CHAPTER IV

### CHOROGRAPHY IN THE EARLY SEVENTEENTH CENTURY: TOPOGRAPHY AND HISTORY

. . . this treatise [Survey of Cornwall] plotteth down Cornwall as it now standeth, for the particulars, and will continue, for the general. Mine eulogies proceed no less from the sincerity of a witness, than the affection of a friend; and therefore I hope that where my tongue hath been good no man's eye will be evil, and that each well-minded reader will wish a merry passage to this my rather fancy-sporting than gain-seeking voyage. Farewell.

By the time John Norden was busy perambulating the shires of England, interest in chorography and in geography in general was being stimulated amongst his fellow countrymen. The voyages of discovery, buccaneering, and trading, the travels of youths on their "grand tours," and the vision of colonizing the new lands of America, all had had their effect. Thus, chorography had to find its place side by side with the popular voyage literature, best exemplified by the works of Hakluyt, and with the traveller's account or guidebook, a still-familiar mixture of topography, history, and often fantasy. Bacon's essay "Of Travel" justified travel as an educational experience for the learning of languages and for the surveys of governments and societies. Now, an interested man did not have to be rooted in a region through long residence and land ownership to be able to write a clear and balanced

description of it. Although many of the travel accounts were fictitious, inspired by the imagination of Renaissance dramatists, others were historically valid.<sup>2</sup> Many of these even merged with the rapidly-developing chorographic form. Like the chorographies, the travel narratives and guidebooks were not usually armchair productions, but represented first hand accounts.

The English did not hold a monopoly over this type of curiosity in new lands and peoples. Europeans everywhere exhibited similar traits, but in varying degrees. Moreover, the art of describing one's own region was becoming a common feature in some of the other European countries. Biondo, writing about Italy, was followed by the Swiss and the German antiquaries who surveyed their own respective homelands.<sup>3</sup> And, outside of Europe, the Chinese in their series of local topographical writings were "probably unrivalled by any nation for extent and systematic comprehensiveness."<sup>4</sup> In general, the British did not directly or consciously copy the methods of their counterparts elsewhere, although their methods were, in many respects, similar. Certainly, they were familiar with continental scholarship, but their work was basically "homespun." The connection is perhaps strongest in the field of cartography, where much of the progress that took place in the earlier years of growth was the result of migration to England of both technique and personnel from

the Low Countries.<sup>5</sup> Many of the early British maps were printed there, and eventually joint partnership in publishing houses was common between these two areas.

There was, as Taylor points out, still an "absence of any systematic literature of regional geography" within Britain itself, although there were certain intertwining links between individuals or among groups of writers.<sup>6</sup> The Elizabethan Society of Antiquaries only occasionally devoted much attention to work of a directly chorographic nature. The contacts that existed among the individual members of the Society, who were involved in this field were mainly of an informal nature and therefore went unrecorded. Meanwhile, the progress of academic geography in Britain during the seventeenth and eighteenth centuries was "largely concerned with the University of Oxford which during that period led the way in geographical study and accomplishment, and produced one work of outstanding merit."<sup>7</sup> That work, Geographie Delineated Forth in Two Bookes, is by Nathanael Carpenter, supposedly the first Briton to write on theoretical geography as distinguished from mathematical treatises on navigation or narratives of travels.<sup>8</sup> But Carpenter's work, although "a very important general geography," had little or no discernible effect on the work of the early regional writers.<sup>9</sup>

On the other hand chorographers such as Norden, it may be noted, helped stimulate others to seek new ways of

constructing accurate maps and instruments, and so cartography and surveying profited from chorography. The first English book claiming to deal with surveying matters was published in 1523, the Boke of Surveyeng.<sup>10</sup> But it was the transfer of lands which accompanied the dissolution of the monasteries that generated a great need for accurate land measurement. Auspicious conditions for the growth of surveying were also provided by the revival in mathematical activity. Interest in mathematics was given new life partly by the necessity of developing precision instruments for overseas navigation.<sup>11</sup> Therefore, it is not surprising that scientific methods should be applied to the measurement of land. By the time of Norden's death, then, several works dealing with the art of surveying had appeared.<sup>12</sup> In most instances, though, the practical surveyor was not a man of letters. Literary education was easily available only to a few; quite often improvements made in the methodologies of surveying went unrecorded until brought to the notice of a surveyor who also happened to be a writer (Norden being one example). Most chorographers left the more scientific measurements to the professional surveyors, content in using words, not instruments, in charting their own territories. Surveying, therefore, although given an impetus by the chorographer, developed largely in a separate, more mathematical direction.<sup>13</sup>

Most chorographies written in the early seventeenth century emphasized the historical and the topographical elements in their work. Their authors' reading of Camden, Lambarde, and the civil historians largely accounted for the historical part. But several other factors combined to involve the chorographers in topography. The obvious one was a natural interest in the landscape, in some ways akin to that held by the eighteenth-century Romanticists. Yet this interest was not nearly as scientific in nature as that of the later natural historians, who undertook the first modern studies of geomorphological features. To the chorographers it was the surface of the earth, its "visual impact" that really mattered, and not its underlying features or composition. Conversely, it may be argued that the natural historians tended to neglect the topography in favour of ample discourses upon the plants, archaeology, strange accidents, and physiological abnormalities of the regions they described; but their interest in and investigations of earth history (i.e., geology, palaeontology, stratigraphy, etc.) cannot be so summarily denied. In other words, they placed importance on the complete physical character of the land, not merely its visual aspect. Few if any of the British regional writers of the early part of the seventeenth century, therefore, even approached a really serious "scientific" study of the earth's natural history, and saw no reason to do so.

"People" interested them more than "rocks." However, a few non-chorographers did try their hand at such study (i.e., natural history). Here again, the Classical writers had led the way and later, during the Renaissance, Leonardo da Vinci, Georgius Agricola (the "German father of mineralogy") and Bernard Palissy had all developed "proto-scientific" theories about one aspect or another of landscape evolution.<sup>14</sup> As we have seen, William Bourne and Thomas Hill, men who are not considered to be regional writers, were amongst the earliest British writers to take an interest in the subject.

Scientific explorations up to the seventeenth century were still inhibited by certain fundamental beliefs inherited from medieval times, which placed severe restrictions upon the consideration of natural history. Some of these beliefs persisted into the second half of the century, but their greatest impact was perhaps felt before the advent of the new ideas associated with the rise of the Royal Society. For example, while the belief that God's omnipotence was everywhere revealed in nature was common throughout the entire century, in pre-Restoration England both the Anglican conformists and the Puritans held that sin was a paralyzing, all-consuming evil which had spread throughout nature, causing universal decay. From the decay of man, the seventeenth-century theorists focused their attention on the degeneration of the sub-lunar reaches,

especially the earth itself. Comets, earthquakes, the infertility of the soil, and so on, as compared to biblical times, were all viewed as the manifestations of this degeneration, and of the wrath of God. The utopian existence of mankind, for most thinkers on the subject, had already occurred in the ante-diluvian world, i.e., that before the Noachian flood. An overwhelming amount of time and energy was now devoted to trying to reconcile a growing knowledge of nature with the Mosaic record as contained in the first few chapters of Genesis.

Such bibliolatrous outlooks on nature also centred to a large degree on the problem of the earth's age. The Mosaic tradition generally accepted by seventeenth-century figures was that the earth was less than six thousand years old, and that its end was imminent. This by itself tended to stave off speculation about what was considered to be an accompanying feature of the earth's degeneration, namely the process of denudation (which is in itself a major topic of natural history), because if the end of the world was at hand there was no need to consider denudation and its resultant destruction of the continents. Later, once this present danger had passed in the minds of men, denudation and other geomorphological topics such as earthquakes were again considered safe ground for the theorist, who now upheld the idea that such processes were slow ones, of little danger to anyone. However, before this became the

case, the idea that nature only had some six thousand-odd years to complete her degenerative duty made an evolutionary view of natural history impossible.

It was only by the second half of the seventeenth century that scientists began slowly to realize that the age of the earth--as seen in nature--was in fact greater than that allowed for by the Mosaic tradition, and so they began to reinterpret the story of Creation less literally, or at least slightly less literally. New questions about earth-chronology were being asked. The study of fossils, for example, was thought to hold the possibility of new answers.<sup>15</sup> Other natural phenomena were also seen as indicative of the great age of the earth.<sup>16</sup> When Edward Lhuyd, in speculating as to the mountain-top origin of numerous boulders found on the floor of a valley in northern Wales, discovered that within living memory only two or three were witnessed to have rolled down, he concluded that at this rate many thousands of years would have been required to account for the dislocation of all of the boulders: ". . . in the ordinary Course of nature we shall be compelled to allow the rest many thousands of Years more than the Age of the World."<sup>17</sup>

It is evident, then, that even before the growth of science in Britain the serious study of natural phenomena was stultified by a variety of factors. These tended to further encourage some strange notions about the subject.

Scripture (Psalm 104) was used to support the theory that the general level of the oceans was higher than that of the continents. One theory, commonly referred to as "microcosm-macrocosm," held up the idea that man (microcosm) was a replica of the universe (macrocosm), so that human bones were regarded as the counterpart of the earth's rocks, man's flesh likened to the soil, his pulse to the tides, etc. Because none of the regional writers of the early part of the century was much of a theorist when it came to the discussion of such topics, each tended to confine his attention to readily perceptible surface features, i.e., the topography. This meant that if one had to examine any features of the earth at all, one could avoid an extensive discussion of its intrinsic scientific properties (of which the chorographer was basically ignorant in any case), concentrating instead on human settlement with its accompanying transformation of the landscape. This had the added benefit of conveying a pleasant picture of the countryside, one unencumbered by distracting side trips into hazardous territory.<sup>18</sup> In fact, as will be evident in the following chapter, this increasing emphasis on the study of man was extended to the point that genealogy largely replaced topography as one of the major components of chorographic study. Only with the growth of natural historical studies in the second half of the century was

attention devoted to the examination of the earth per se, i.e., to the exact science of landforms.<sup>19</sup>

Generally, in the early decades of the century it was widely believed that the earth's topography was essentially of primeval origin, i.e., that landforms were literally moulded by the Divine Hand on the third day of the Creation. Others maintained that the Noachian flood transformed the contours of the earth into their approximate present shape and form. But by the second half of the century, when we come to a discussion of the natural historians, it should be kept in the back of one's mind that they wrote at a time when morphological theories of the origin of topographical features were becoming increasingly popular (with the flood theory close behind), when earthquakes were regarded as the major force in earth-sculpture.<sup>20</sup> Despite their lack of interest in landform creation, few chorographers of the early part of the seventeenth century failed to describe the actual topography of their region. Perhaps the only exception to this rule is Sampson Erdeswicke (d. 1603), so we will first briefly devote our attention to him.

Erdeswicke was included among Camden's circle of friends within the Society of Antiquaries; Camden called him "venerandae antiquitatis cultor maximus."<sup>21</sup> Erdeswicke is best remembered today for his survey of his native Staffordshire, a work which remained in manuscript until its

publication in the early eighteenth century.<sup>22</sup> This study is distinct from Lambarde's because of its focus on heraldry and artefacts (such as houses and monuments), rather than on the physical features of the countryside.

The son of Hugh Erdeswicke, a man who could trace his descent from an ancient family at Sandon, Staffordshire, Sampson Erdeswicke became a gentleman commoner at Brasenose College, Oxford, in 1553. From these beginnings he went on to become a member of the Inner Temple, afterwards returning to Sandon to spend most of his days in the pursuits of a country gentleman. Erdeswicke was a Catholic, rigidly adhering to the faith of his ancestors, on which account he was subjected to constant persecution during the reign of Queen Elizabeth.

Erdeswicke began his Survey of Staffordshire about 1593, continuing it until his death in 1603. Shortly before he passed away he supposedly composed a second draft which was free of certain errors contained in the original. William Dugdale claims to have made a transcript of the original, the same transcript which formed the basis of the first printed edition. The history of the several manuscripts that survive is shrouded in mystery; these vary in topographical and orthographical detail.<sup>23</sup> The Survey of Staffordshire commences, in some of the manuscripts, in the style of a letter seemingly addressed to Camden.<sup>24</sup> Here Erdeswicke states his intention of following Camden's policy

of describing a region by following its rivers, beginning with the Trent. Each manor, town, and hamlet along the banks is listed. The respective owners from Domesday Book to the present time, with their genealogies, are disclosed. A typical entry reads as follows:

Trent having passed Norton, leaveth Bagenhill, a village removed from its eastward more than a mile, where is a chapel. 20 Cong. Robert de Stafford held Bagenhall of the king. Of some <sup>me</sup> part of this village it would seem that about King Stephen's, or Henry Second's time, one Ivo de Pantune was owner thereof; for I have seen a deed importing this much. . . .<sup>25</sup>

Erdeswicke intended to undertake a similar study of Cheshire, but this never amounted to more than an excellent tract on Beeston Castle.<sup>26</sup>

His work remains invaluable for the social historian. He provided an extensive record of the changes in the social order effected by the dissolution of the religious houses. We find, for example, that at Stone the priory and the demesnes and also the deanery of Stafford were in the hands of William Crompton, son of a merchant, who purchased it shortly after the dissolution.<sup>27</sup> However, Erdeswicke was no expert in etymology. Finding what he took to be an Old English inscription in Dudley Churchyard, he told his secretary to make a transcription and send it on to the acknowledged expert in the field, William Camden, for interpretation.<sup>28</sup>

Besides Domesday Book, Erdeswicke relied on various deeds, charters, effigies, chevrons, and heraldric

inscriptions on tombs and monuments for his information. Among his journeys on horseback was one to the north of England where he inspected the Roman wall and ruins.<sup>29</sup> Because his antiquarian interests were centred almost exclusively on pedigrees and the ownership of land, Erdeswicke's work provides bland reading for the average layman. Chorographers of the time, however, were in unison with Camden in praising the Survey; William Burton spoke highly of this work; Thomas Gerard possessed a manuscript copy; and, Sir Simon Degge (antiquary, and a Justice of the Peace for North Wales after the Restoration) thought that if the Survey had been published before Dugdale's Warwickshire, ". . . it would have taken the first place of any in this Kind."<sup>30</sup>

In contrast to Erdeswicke's informative but dull production there is Richard Carew's Survey of Cornwall. This work directly responds to Lambarde's grand design, and perhaps embodies its most successful single expression. It is a lively book which is to be read for the entertainment that its feeling for local colour affords.

Carew (1555-1620) was, like many of the other chorographers, a gentleman scholar. As a member of one of the leading families of Cornwall--Carew claimed that it was one of those that came with the Conqueror--he was able to procure a succession of positions of authority for himself. In 1581 he was appointed a Justice of the Peace, in 1586 he

was called upon to act as High Sheriff of Cornwall, and in 1584 and again in 1597 he held a seat in Parliament. He also served as a Deputy-Lieutenant of Cornwall under that learned gentleman, Sir Walter Raleigh. Carew befriended William Camden when both were studying at Oxford in the 1570's, and later was indebted to him for a fair amount of antiquarian information. After Oxford, Carew underwent legal training in London. It is possible therefore (although there is no existing evidence to the effect) that Carew was personally acquainted with John Norden. Norden, as mentioned, also studied law in London, although at a slightly later date. While Norden's legal training was part of his ongoing search for a successful career, for Carew it represented the type of training desirable for a man who was to look after a large patrimony.

Carew's scholarly tastes were nourished by a love for reading and by a considerable knowledge of ancient and modern languages, including Italian, French, Spanish, Dutch and Greek. His graphic knowledge of Cornwall was increased by the regular travels into the heart of the duchy which his duties as a Justice of the Peace entailed. These factors combined give a picture:

. . . of the young squire of Antony walking through his fields or riding over to Cotehele, perhaps calling on the way at Malton to see Anthony Rous (a neighbour), a copy of Virgil, or Homer, or Ariosto in his hand, or, more strangely, of Procopius, Olaus Magnus, or Leo Africanus, for his thoughts were always turning to the

past and the wonders that he might have seen on his  
<sup>31</sup> foreigne travels.

Like John Norden and George Owen, the chorographer of Pembrokeshire, Carew devoted much attention to the threat of Spanish intervention in England. As Deputy-Lieutenant he had special responsibility for the defence of Cawsand Bay and the surrounding coast. Pride in this office instilled in him an even greater amount of patriotic fervour, one directed not only towards Cornwall but also towards the entire nation. This feeling was reinforced by the death in the Netherlands of his friend and contemporary at Christ Church, Sir Phillip Sidney, and by the death of one of Carew's relations, the famous Sir Richard Grenville in the last fight of the "Revenge."

Carew was elected a member of the Society of Antiquaries in 1598, having been introduced to that growing organization by William Camden. He contributed at least one dissertation (dated 20 November, 1599), concerning Cornish agriculture, to the activities of the Society.<sup>32</sup> Unfortunately, however, Carew was cut off from the mainstream of academic society because of his life-long residence in Cornwall. In a letter to Sir Robert Cotton he wrote:

I pray you give me leave to impart unto you my grief that my so remote dwelling depriveth me of your sweet and respected Antiquarian Society, into which your kindness towards me, and grace with them, made me an entrance, and unto which (notwithstanding so long

discontinuance) my longing desire layeth a continual  
<sup>33</sup> claim.

Yet he was honoured and remembered by the circle of antiquaries he had frequented in London. Ben Jonson, in his Execration upon Vulcan classed Carew with Cotton and John Selden; Spelman dedicated to him an Epistle Concerning Tithes; and John Dunbar addressed two Latin epigrams to him. Camden, meanwhile, might have been personally responsible for persuading Carew to write a fuller account of Cornwall than had appeared in his own Britannia.<sup>34</sup> In turn he incorporated much of Carew's material (once the Survey of Cornwall was published in 1602) into various issues of the Britannia.<sup>35</sup> Sir Henry Spelman was also indebted to the squire from Antony for the valuable criticism of his work on the rights of the churches, the Epistle on Tithes; for this assistance Spelman dedicated this book to Carew. It was only the encouragement of Camden and the pressure of some of his friends that finally led Carew to publish the Survey of Cornwall. Previous to this it had merely been in circulation in manuscript form. The Dedication to Sir Walter Raleigh explained that it had been "long since begun, a great while discontinued, lately reviewed, and now hastily finished. . . ."

The Survey follows Lambarde's plan of first providing general information according to topics, then a

## SPECVLI BRITANNIA.

II

The riuer *Lea*, of the *Saxons* liga is a proper riuer, heretofore, Lea river navi-  
 (as some affirme) nauigable, and that shipping passed through  
 the same, from the *Thamise* to *Hartsford*. Barges haue of late pa-  
 sed that way, to *Ware*, which was granted by Acte of Parliament  
 about the eightene year of the raigne of Queene ELIZABETH,  
 but for some causes of late discontinued. This riuer for the most  
 part deuideth MIDDLESEX and EASIFEX. But there is a ditch  
 called the *Meere ditch*, about two miles and a halfe in length, be-  
 tweene *Waltham* abbey, and *Higham* hill bridge which is cut into  
 the marshes and passeith through the same, for a distinction of  
 the boundes betweene the two shires.

*Colne* riuer is the devision between MIDDLESEX and Bucking- Colne river.  
 ham shire, But that a ditch callid the *Shire ditch*, which seemeth to Shire ditch.  
 haue been forced into MIDDLESEX, about two miles in length,  
 north of *Colnebroke*.

Through this riuer as some affirme, haue passed shipping to  
*Saint Albans*. *Minime credendus*.

The nature of the soyle and fer-  
tilitie of MIDDLESEX.

MIDDLESEX is a small Shire, in length not twentie The length and  
 myles, in circuite (as it were by the ring) not about 70. circuse of Middle-  
 myles, yet for the fertilitie thercof, it may compare with sex.  
 any other shire: for the soyle is excellent, fat and fertile Middlesex fer-  
 and full of profit: it yeldeth corne and graine, not onelie in a- tile.  
 boundance, but most excellent good wheate, especiallie about Heston.  
*Heston*, which place may be called *Granarium tristis regalis*, for the Heston.  
 singularitie of the corne. The vaine of this espeiall corne seem-  
 eth to extend from *Heston* to *Harrow* on the hill, betweene which  
 as in the mid way, is *Priuale*, more truely *Puremale*. In which vale Priuale or pure-  
 is also *Northold*, *Southold*, *Nygrose*, *Gernford*, *Hayes*, &c. And it see- male.  
 meth to extend to *Pynner*, though with some alteratio of the soile. Harrow on the  
 It may be noted also how nature hath exalted *Harrow* on the hill, hill.  
 which seemeth to make ostentation of its situation in the *Pure-*  
*male*, from whence, towards the time of *Harvest*, a man may be-  
 holde the fields round about, so sweetly to addresse themselves,  
 to the scicke, and sith, with such comfortable abundance, of all  
 kinde of graine, that the husbandman which waiteth for the  
 fruits of his labours, cannot but clap his hands, for ioy, to see this  
 vale, so to laugh and sing.

Yet doth not this so fruitlell soyle yeild comfort, to the way-  
 fairing man in the wintertime, by reason of the claiish nature of  
 soyle: which after it hath tailes the Autume showers, waxeth both

Fig. 5. Sample page from Norden's  
Middlesex



Fig. 6. Richard  
 Carew

hundred by hundred description. It also follows Lambarde's example in avoiding a concentration on heraldry:

I had also made a more painful than perfect collection of most of the Cornish gentlemens' names and arms, but because the publishing thereof might perhaps go accompanied with diverse wrongs, to my much reverenced friends the heralds by thrusting my sickle into their harvest<sup>36</sup>. . . I rather thought but altogether to omit it. . . .

If the genealogical information is relatively scarce, the industries and the topographical features of the region, on the other hand, are described in considerable detail. And the worthies and the author's friends and acquaintances are depicted with a quaintness peculiar to Cornwall, one which also reveals Carew's kindly and tolerant nature.

The first items under consideration are the many "accidents," i.e., the name, earliest inhabitants, shape, situation, and climate. Unfashionable as it now may have become, Carew nonetheless expressed here his secret sympathy with the story of Brute, accepting the legend that Cornwall was bestowed by Brutus on Corineus after his exploit in wrestling with Gogmagog on Plymouth Hoe.<sup>37</sup> Staunch West Country chorographer that he was, Carew was thus unwilling to desert a former fellow Cornishman by birth, King Arthur. Next, the situation of the duchy was found to be favourable with respect to one of the main European trade routes, but, conversely, the great distance from the higher seats of justice and from the urban centres was viewed as a major inconvenience. The air was healthful, "apter to preserve

than recover health," and the vulnerability of the area to violent storms was dutifully discussed. The only authorities Carew cited in this section are Matthew of Westminster and Polydore Vergil.

Then came the "elements," including earth, minerals, and water. Here Carew is clearly identifiable as an astute observer of the economic terrain. He noted the cheapest way of "making" lime; the various types of quarry stones and their practical applications; the uses of pebblestones from the sea; and the types of slate that are used for house construction. However, most of his attention was directed to tin mining, the primary industry of Cornwall. Much of this information was derived from Francis Godolphin and William Carnsew, two old friends, but other sources were not entirely disregarded. For example, Carew knew the value of numismatic evidence. At one point he stated that: "Neither were the Romans ignorant of this trade, as may appear by a brass coin of Domitian's, found in one of these works."<sup>38</sup> At another point he referred to Munster's Cosmography and Francis Leandro's writings on minerals.<sup>39</sup> Carew used these and other sources intelligently to describe the methods of tin mining, and also to speculate on the effects of the truck system at the tin mines.

"Next to the lifeless things follow those which partake a growing life," such as herbs, grain, fruit, and timber. This section was followed by one on the "creatures

of breathing life." Carew's penchant for story-telling and for making irrelevant and gratuitous observations is noticeable in his fable of a foolhardy man who is bitten by his pet "venemous worm" (snake), the same creature that the man had earlier mistreated and used to frighten gentlewomen with. Carew takes this opportunity to engage in a bit of moralizing, saying that the vain dread of the women proved safer than the foolhardiness of the man, and that "fain was he therefore to show his mishap, and by gestures to crave aid in earnest of the gentlewomen whom he had aforetime often scared in sport."<sup>40</sup>

Throughout this work Carew's prose has a rhythmic, almost colloquial quality which is ignited by a lively use of alliteration. The description of the condition of Cornish houses, for example, is worth quoting:

Of all manner vermin, Cornish houses are most pestered with rats, a brood very hurtful for devouring of meat, clothes, and writings by day; and alike cumbersome through their crying and rattling, while they dance their gallop galliards in the roof at night.<sup>41</sup>

An avid angler, Carew was happiest in discussing his favourite sport, fishing. He touched on the variety of fresh- and also saltwater fish, the methods of catching them, and the types of gear used. Unfortunately, this is one point where he instills in the reader the same boredom he had hoped to avoid: "But though I shun tediousness herein, I fear I shall breed you nauseum while I play the fish-monger. . . ."<sup>42</sup> His own residence at Antony was located

near the tidal waters of the Lynher, near whose banks Carew constructed a saltwater fish pond. This pond was his pride and joy, and one can easily envisage the figure of this country gentleman while engaged in feeding the fish or entertaining his guests here. (Carew intended to build a banqueting house on the pond's artificial island):

I wait not at the lawyer's gates,  
Ne shoulder climbers down the stairs;  
I vaunt not manhood by debates,  
I envy not the miser's fears;  
But men in state, and calm in sprite,  
My fishful pond is my delight.<sup>45</sup>

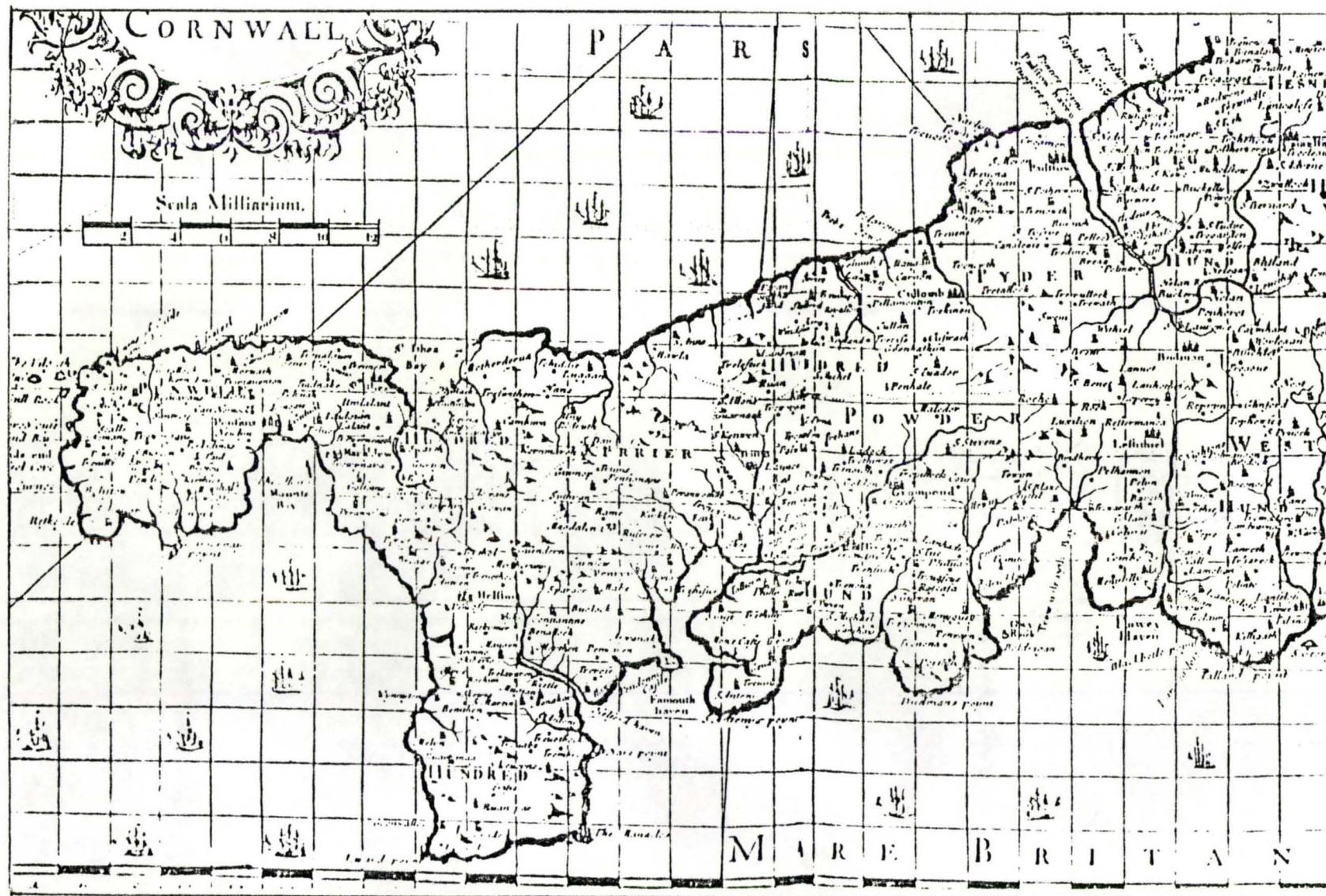
After having marched over the land and waded through the sea, to discover all the creatures therein, insensible and sensible, the "course of method" led him to a discourse of the inhabitants. This topic was divided into several sub-categories, commencing with the methods of tenure, trade, houses, bridges, highways, and the other man-made features of the countryside. Carew haphazardly meandered through a discussion of the Cornish language--although a native of the region and an excellent linguist, he was no Cornish scholar--and attempted to estimate the population of the duchy while analyzing its distribution. His familiarity with continental scholarship was revealed in his use of Jean Bodin's method for determining the number of inhabitants. He went on to list famous Cornishmen throughout the centuries, a list so diverse as to include eminent military men, politicians, and magistrates, as well as a "short

clownish grub," and Carew's own relatives. Some of his most vivid and poignant descriptions are preserved in this portion of the book, where we catch a glance of all levels of Cornish society at home, work, and play. The social consciousness of the reader is aroused by scenes such as the following account of the husbandman:

These in times not past the remembrance of some yet living, rubbed forth their estate in the poorest plight; their grounds lay all in common, or only divided by stitch-meal (strip of land); little bread-corn: their drink water, or at best but whey, for the richest farmer in a parish brewed not above twice a year, and then, God wotte what liquor . . . their apparel coarse in matter, ill shapen in manner: their legs and feet naked and bare, to which sundry old folk had so accustomed their youth that they could hardly abide to wear any <sup>44</sup> shoes, complaining how it kept them over hot. . . .

Carew's painstaking portrait of husbandry reveals the improvements which had lately taken place in this field: seasand was used extensively in the fields; poorer land was given over to rye; and, several parks had been given over to tillage. Generally then, the lot of the husbandman was steadily improving from that of former times.

Like the Welsh, Cornishmen took much delight in certain traditional sports and pleasures, such as archery, "hurling," and wrestling. The proficiency of the natives in these recreations was vividly described. Carew compared the ball used in the game of hurling to "an infernal spirit, for whosoever catcheth it fareth straightways like a madman, struggling and fighting with those that go about to hold



him. . . ."<sup>45</sup> Wrestling was found to be more delightful and less dangerous, a pastime possibly derived from Corineus.

The first half of the book ends with an historical report of the Cornish government, civil and ecclesiastical, which includes lists of the hundreds, corporations, and boroughs of the duchy. This entire introductory section, in fact, covers more than half of the book. It seems that Camden had already treated the major places adequately enough with respect to antiquities, and that Carew was more interested in depicting the life of the people. Also, although Carew had a sharp eye for the picturesque scene, he was less inclined to go into as much topographical detail as did some of his fellow chorographers (we find a bit more topography in the second half of the Survey). Carew thought of "topography," according to his biographer, F. E. Halliday, mainly as "the scene as modified by human hands--towns, villages, fields, and mines, country houses and their gardens"; and by "history" Carew meant "contemporary life, with special emphasis on the gentry."<sup>46</sup>

The Second Book, divided into nine units (one for each hundred), takes the form of Lambarde's Perambulation: "In my particular view, I will make easy journeys from place to place, as they lie in my way, taking the hundreds for my guides, until I have accomplished this wearisome voyage."<sup>47</sup> The journey basically traverses the duchy from east to west, beginning with Carew's own Hundred of East. We find in this

part of the book the usual etymologies and local stories, various details of topographical and historical interest, and accounts of certain prehistoric remains and other antiquities (although not nearly the number found in the Britannia). Carew's sources of information ranged from Classical and contemporary, such as Strabo, Ptolemy, Lambarde, Camden and John Hooker (a West Country antiquary), to merely local hearsay.

East Hundred takes up considerably more space in the text than any of the other units, due first to Carew's greater familiarity with this hundred, and also because he ostentatiously devotes much attention to the affairs of his own family. At several junctures the text is broken up by Carew's poetical verses, including a fairly long one which deals with his family stock. A typical entry is the one describing a famous site in Penwith Hundred:

Stepping over to the south sea . . . St. Michael's Mount looketh so aloft as it brooketh no concurrent for the highest place. Ptolemy termeth it Ocrinum, the Cornishmen, Cara Cowz in Clowze, that is, the Hoar Rock in the wood. The same is sundered from the mainland by a sandy plain of a flight-shoot in breadth, passable at the ebb on foot, with boat on the flood. Your arrival on the farther side is entertained by an open green of some largeness, which finishing where the hill beginneth, leaves you to the conduction of a winding and craggy path, and that as the top delivereth you into a little plain occupied for the greatest part by a fort of the old making. It compriseth lodgings for the captain and his garrison, and a chapel for devotion. . . . They have a tyepit (pit for collecting water), not so much satisfying use as relieving necessity. A little without the castle there is a bad seat in a craggy place, called St. Michael's Chair, somewhat dangerous for access and therefore holy for the adventure.<sup>48</sup>

Carew's interest in antiquities led him to describe, for example, the figures of Gogmagog and Corineus cut in the turf on Plymouth Hoe, and the image of the Magdalene at Launceston; or to transcribe the letters engraved on the Doniert stone: "Thither I rode to take view of an antiquity called The Other Half [Doniert] Stone. . . ." However, the particular transcription was "here inserted for abler capacities than mine own to interpret."<sup>49</sup> At times there is an abnormal amount of personal feeling present in the prose descriptions. Of that inspirational antiquity, Tintagel Castle, Carew remarks: "Under the Island runs a cave, through which you may row at full sea, but not without a kind of horror at the uncouthness of the place. . . ."<sup>50</sup> The personal quality of the Survey is also evident elsewhere. Therefore, in describing Millbrook in East Hundred he states that: "In my remembrance (which extendeth not to above forty years) this village took great increase of wealth and buildings through the just and industrious trade of fishing."<sup>51</sup> Or, in speaking of the tin mines, he manages to rebuke the "big city folk": "There I must either crave, or take leave of the Londoners, to lay open the hard dealing of their tin merchants in this trade."<sup>52</sup>

Carew intended to put out a revised edition of the Survey, but his plan was pre-empted when he found out that John Doddridge, the Solicitor-General and an antiquary in

his own right, had already written a book on Cornwall. In May, 1606, Carew therefore wrote to Camden requesting a copy of this work, hoping to "cull out of Master Solicitor's garden many flowers to adorn this other edition," and also sought to obtain a copy of Norden's map of the duchy.<sup>53</sup> As it turned out, Doddridge's survey--actually a legal treatise--remained unpublished until 1630. In any event, Carew never did publish a second edition of his own Survey. The Survey represents a rare breed--a chorography which can justifiably claim to be eloquent. This is not surprising, perhaps, when one realizes that Carew's talents were also displayed in several other literary avenues besides chorography. His A Herring's Tail (1598), for example, is a very amusing poem, while The Excellency of the English Tongue (1594), is considered a classic example of a short critical essay.<sup>54</sup> The Survey itself is generally regarded as one of the most entertaining works in the English language, "one of the minor classics of English prose," according to Halliday.<sup>55</sup>

It provided the immediate source of inspiration for George Owen of Henllys (1552-1613), Lord of Kemes, whose Description of Pembrokshire reveals the same attachment to one's native region as does the Survey of Cornwall.<sup>56</sup> It is perhaps significant that both Pembroke and Cornwall were, and still are, outlying Celtic counties noted for their strong local pride. Owen was not a patriotic Welshman in

the narrow sense of the term. He was proud of the fact that his own beloved county was called "Little England," and that Pembroke men had offered resistance against the Welsh as well as against the Irish, in the past. English was spoken here almost exclusively, as the region was under English rule; where a man would say "Look; there goeth a Welshman."

Curiosity about the genealogy of his own family and about the origins of his Lordship spurred Owen on. Twenty years of his life were spent in conflict with the Council of the Marches as to his rights of wardship and imprisonment, and over possession of "jura regalia" within the Barony of Kemes. His book contains catalogues of earls, and the "descentes and armes" of the nobility. Among the few details there are of his life, one finds that he always resided in Pembrokeshire. Here he held the offices of Vice-Admiral, Deputy-Lieutenant, and (on occasion) Sheriff.

Owen attempted to imitate Carew's study by beginning the first book with a general survey of the county (though Owen's first book went into greater detail), leaving the details of the hundreds and the parishes for the second book. The work is dated 18 May, 1603, but the second book was never finished, as Owen was unable to obtain the required information, so that only the groundwork was established.

Owen's Penbrokshire is pedestrian compared to Carew's Survey of Cornwall, nevertheless it succeeds in conveying a vivid personal picture of Pembroke. The physical description, the

bustling fairs and markets, the particular customs and the manners of the people, their pastimes and "recreacions," are each given due notice. In addition to this, Penbrokshire contains much historical matter and information of interest to the student of both agriculture and geology. Much of the information is typical of the earlier county surveys, especially the discussion of the situation, size, shape, name, political divisions, towns and villages, soil, air, and produce.

In the opening chapter Owen rebukes Saxton for depicting Pembrokeshire in his atlas as one of the largest shires in Wales, and went on to similarly correct Giraldus Cambrensis about the derivation of the name "Pembroke," saying it should be spelled "Penbrock" to indicate its derivation from "Pen" (head) and "bro" (vale). This, he proclaims, is the chief vale of Wales, not "Land's End," as Giraldus states. The "common sorte" of people are found to be:

. . . very meane and simple, shorte of growth, broade, and shrubbye, unacceptable in fight for theire personall service, howesover they prove in action, when they are putt to yt, soe that of all the Countreys of Wales I finde and speake by experiance Penbrokshere to<sup>57</sup> be worst manred, and hardest to finde personable. . . .

The cause of these disabilities is readily perceptible if one looks into, first, the state of the education of the people and, second, the physical state of the countryside, which was bare and unsheltered, subject to extreme "stormes

and suddaine tempestes and sea flawes [blasts] of wynde, and hayle." This type of climate forces most young people into an idle career of herding cattle, while turning them into "tawney moores."<sup>58</sup> The gentlemen and the townsmen, in contrast to the common sort, were not as tormented by the extremeties of the climate, and were therefore very "personable, comelye and tall".<sup>59</sup> Furthermore, one may presume that this latter group did not "hold opynion with the papistes, that there is a purgatorye," as did the commoners.<sup>60</sup>

Owen, a sensible landowner, was not above giving advice on agriculture, husbandry and on related topics. After all, was not the maintenance and feeding of both man and beast not accounted the Godliest trade of all, not unworthilie called "sancta rusticitas?"<sup>61</sup> After a discussion of the major commodities, i.e., corn, cattle, wool, dairy products, and fish, Owen described the Welsh as being relatively poor husbandmen. Thus, they tilled the oats while the English inhabitants grew barley and wheat. However, the situation was gradually changing. The abolition of gavelkind had encouraged the purchase and exchange of lands and their hedging and enclosing in separate holdings, thereby promoting better tillage. The raising of sheep was singled out as an occupation yielding great wealth with little charge, since in Wales sheep were not fed hay in winter, which was the common practice in

England, but could feed out (i.e., be left to their own devices). Extra income was also realized by the export of herring and by the sale of domestically-bred droves of young sheep, lambs, and hogs, in the distant markets of England. Owen's expertise extended to the use of manure; there is a detailed account of the new methods in use. His preference was for discovering and utilizing the various kinds of marl.

In writing of farming methods used in Pembrokeshire, Owen referred to the "natural helpes, which is in the countrey, to better the land, and to make it more frutful." Lime was the most commonly used of these natural aids. Cornwall had its tin, but Pembroke was rich in limestone and coal. Because the location of certain beds of limestone was "not soe well noted, as fitt to be knowne," Owen traced in detail the distribution of the carboniferous limestone and coal measures of southern Wales.<sup>62</sup> John Leland, in his Itinerary, had alluded to geology long before Owen. For example, the first analytical concept recorded in the annals of British geology--that of stratification--came from the researches of Leland: "The stones ly yn the ground lyke a smothe table: and be bedded one flake under another."<sup>63</sup> But it was Owen's account which "makes a definite beginning to the delineation of the geology of Britain, being the earliest attempt to establish the fundamental fact that the same series of rocks succeed each other in a regular order throughout vast tracts of countryside."<sup>64</sup> Here, Owen

described the outcrop of the carboniferous limestone surrounding the South Wales coalfield:

You shall understand that the lymestone is a vayne of stones runninge his course for the most parte right east and west: althoughe sometymes the same is found to wreath to the Northe and Southe. Yet is the mayne course thereof as I take that all other vaines of this Realme are also found to be, from west to east; of this lymestone there is founde of ancient two vaynes, the one smale and of noe greate breadthe: the other verie broade both these roninge estward as I shall declare unto you.<sup>65</sup>

He was aware, therefore, that a "vayne" of limestone runs across Pembrokeshire from west to east until it is lost beneath the sea beyond Pendyne. The course of the north crop:

Sheweth itself in the Cliffe at haroston somewhat south of the ould church there and . . . goeth on to Picton land and Sleabech . . . and holdinge eastwarde appeareth at Muncton by the woodd, and so eastwarde to Ludchurche and so eastward to the sea and passeth out of Penbroksheere, this vayne is not of breadth above a but lengthe or stons cast, and therfore whosoever seaketh Southwarde or Northwarde over that breadth misseth it<sup>66</sup> but eastward and westward is found to continue. . . .

The pioneering aspects of his work resulted, not totally unexpectedly, in inaccuracies in Owen's findings. At one point he confused the different types of limestone. But, he was aware that rocks containing coal followed a course that closely parallels that of the limestone, being sometimes found in close association with one of the limestone veins. Subsequent mining has proved him correct. Owen's object in describing the distribution of the rocks was to indicate where they were known to occur in order to guide parties to

seek the limestone "whereas yett it lyeth hid, and save labour to others in seakinge it where there is no possibilitie to finde it." Thus Owen was stimulated by the same motive which in large part justifies the existence of many of today's geological surveys. His account was the first to map, if only in words, a British geological formation, although Aubrey and Lister were the first to propose the making of a geological map (in the period 1683-91).<sup>67</sup> It apparently did not occur to Owen to indicate the distribution of the limestone and the coal veins upon a topographical map like the one which he prepared to accompany his Penbrokshire. Therefore, the value of Owen's contribution towards the founding of geology as a science tends to be rather exaggerated.<sup>68</sup> He did not demonstrate that he had any clear idea of geological structure, even though he established the fact of bands of outcrop traceable across the country.

Although Owen tells us little of the picturesque beauties of his county, he had Carew's eye and ear for customary life which, combined with a freshness of speech, undeniably added charm to his work. His description of the "chiefest" mountain, Percellye, is indicative of this:

This Mountaine is so highe and farre mounted into the ayre, that when the Countrey about is faire and cleere, the toppe thereof wilbe hidden in a cloude, which of the inhabitantes is taken a sure signe of raigne to followe shortelie, whereof grew this proverbe, 'when Percellye weareth a hatte,<sup>69</sup> all Penbrokeshire shall weete [know] of that. . . .'

One chapter (Twenty-Five) is devoted to the famous and learned men who were born or had lived in Pembrokeshire. Owen relied heavily here on John Bale's De Scriptoribus brittanniae as a source of information. Figures as diverse as St. Patrick, "Merlyn" (of King Arthur fame) and Giraldus are paraded before the reader. This is perhaps an attempt to help counteract the impression that Pembrokeshire lacked heroes.

Owen also followed Carew on the topic of "wonders." He gathered nine Pembroke wonders into one chapter (Twenty-Six); Carew distributed those of Cornwall throughout his book. Owen's brief introduction to this section is interesting in that it invites comparison with the views on this subject of the natural historians of the latter part of the century:

In speakeinge of wonders, lest the reader should wonder to much I thinke it fitte first to discribe these thinges wch I will here call wonders, and therefore I will here call wonders those thinges that for the rarnes [rareness] thereof will drawe people to marvell thereat and yett noe vnnaturall cause or matter to be founde, for if it swarve from nature it is more properlie (if it ome by the handie worke of god) a myracle, if by the operacion of nature then more aptlye called a monster, then a wonder, for manyl naturall thinges for the rarenes thereof will drawe people to wonder at it, of these, such fewe as I have noted to be founde in Pembrokshire I will breifely note. . . .<sup>70</sup>

These wonders ranged from a huge "shakeinge stone" found near St. Davids, which a man might move with one finger yet not be able to stir it with the force of his whole body; to

a freshwater well half a mile removed from the sea, whose waters ebb and flow in conjunction with the ocean; to unusual underground passageways; and so one.

The second book, the one Owen was not able to complete (the so-called Vairdre Book) contains considerable additional collections for the history and topography of Pembrokeshire. These include bits of information concerning the individual parishes of the shire, a list of the ecclesiastical benefices in the county, divided into deaneries (collected in 1594), surveys of the manors of Ambleston and Rinaston, and a list of Drake's ships in the Armada year, with the names of the captains and the numbers of the crews. The Vairdre Book also contains a letter dated 1595 from Owen to the Lords of the Council, in which Owen attempted to induce the government to fortify a strategic waterway, Milford Haven, against the Spanish threat.<sup>71</sup> It appears that in one sense Owen--because of his detailed knowledge of the region, and because of his position of authority there--was expected to assume a role similar to that of a seventeenth-century military surveyor.<sup>72</sup> Unfortunately, he lacked the kind of comprehensive training required of the surveyor. In this respect Owen was no John Norden. Owen also drew up a pamphlet entitled the "Description of Mylford Havon" which accurately and in great detail sets out the nature and the parameters of the port of Milford Haven.<sup>73</sup> Close attention is paid to both the

topographic and the hydrographic features, including islands, channels, currents, and the neighbouring town. In a short segment on the dangers of the harbour area he cited an old "adagie" current among the mariners of Milford: "Dangers in Milford there is none Save the Crow the Carre and ye Cattlestone."<sup>74</sup> From an examination of the means of strengthening Milford Haven he applied himself to the means of fortifying Pembroke Castle:

The Castle is thought almost impregnable the weakest parte thereof is a smale parte that ioyneth to the towne which is onely defended with a dry dytch and which may be made very stronge and deepe the towne walles springeth from the sayed Castle and stretching furth on each side of the said town, enclosing the whole towne as it were within one utter [outer] or base Courte of the said Castle.

George Owen was not a member of the Society of Antiquaries, nor was he as well read in history as was Carew. The chronicle sources included Bale, David Powel, Humphrey Lhuyd, John Foxe, Camden, and Giraldus. But he knew the value of other records. The Vairdre Book contains an account of Owen's search in London for information vital to his study.<sup>75</sup> While in that city he sought out in the Exchequer the "booke of Domedsdaye," consulted the Quo Warranto inquests, looked at the "Ragman Rowles" (these contained the instruments of homage and fealty sworn by the Scotch barons and clergy to Edward I in 1296), and examined other material in the Court of Wards and in the Exchequer: "thei towld me and shewed me diverse Recordes [manuscripts] particular for

Wales and hadd a grete canvas bagg full of Recordes for South Wales."<sup>77</sup> Owen had plans for a description of all of Wales which was to survey all the lordships, ports, market towns, and other topographical features, but he never got beyond an elaborate outline.<sup>78</sup> However, because of the valuable work he did in chorographically-displaying his native land he deserves to be remembered, in the words of Camden, as "a singular lover of venerable antiquity."<sup>79</sup>

After Carew and Owen, no one wrote a full-scale county chorography for fifteen years. Yet the work of one man, which covered all of Britain, must be examined here. John Speed (1552-1629) was, like John Stow, a member of the Merchant Taylors' Company.<sup>80</sup> Antiquarian and historical pursuits were secondary to Speed's interest in cartography. But, unlike Owen, he was a member of the Society of Antiquaries, and came to know Camden, Cotton and Spelman. Cotton in particular was able to assist Speed by making available to him the formidable resources of his library. And, unlike Norden, Speed enjoyed the constant patronage of a man who stood high in the court of King James, Sir Fulke Greville.<sup>81</sup> Freed from financial concerns, Speed devoted himself whole-heartedly to his cartographical and related intellectual pursuits, free to "express the inclination of my mind."<sup>82</sup>

Like the other chorographers in the tradition stretching back to Leland, Speed was concerned with the face

of Britain in both the past and the present. In 1598 he presented the queen with maps of several of the counties, and between 1605 and 1610 he published a series of fifty-four county maps that were originally drawn by Saxton and Norden. Sometime during these years Speed determined to join their maps to his own chorographic labours and thereby fulfill the design of Leland in a single work. By 1611 he was ready. In that year he published the Theatre of the Empire of Great Britaine, a large folio volume which included the maps along with a descriptive chorographic text and an index on the back of each of these. In conjunction with this work Speed issued a history of Britain which, although primarily a reworking of older histories, was widely admired by his contemporaries.<sup>83</sup> It was decoratively illustrated, expensive, and impressive. Speed's own critical abilities were not profound. In the Theatre he explained that his borrowings from previous writers is for a worthy cause:

. . . wherein I have held it no sacrilege to rob others of their richest jewels to adorn this my most beautiful Nurse, whose wombe was<sup>84</sup> my conception, whose breasts were my nourishment. . . .

Camden provided the main source. Nevertheless, Speed's was one of the first general histories to make use of the discoveries and materials of the English antiquaries. He supplemented his work with his own observations--to which the geographical notes in the descriptive text bear

witness--and he claimed to have personally perambulated every province of England. Notwithstanding the work of Saxton and Camden, the Theatre proved to be the earliest English attempt at atlas production on a large scale.<sup>85</sup>

The chorographic text which accompanies the maps in the Theatre presents some new topographical-historical information. The descriptions all follow the plan in the first section of Lambarde's Perambulation, but without a detailed review of the locations. A survey in the Theatre treats about a dozen subjects; the name, situation, natives, air, soil, past and present civil and ecclesiastical government, the various "wonders," and the hundreds. All the information for each shire is virtually compressed into one folio page.

Speed chose his authorities carefully, utilizing the Domesday Book, Nennius, Bede, Leland, Lambarde, Stow, Camden, Carew, and Cotton, whom Speed described as "another Philadelphus in preserving old monuments and ancient Records: whose Cabinets were unlocked and Library continually set open to my free access."<sup>86</sup> On more than one occasion he wrote to Cotton, sending the latter "coynes" to be added to his collection, or merely in search of information:

Yf you will send a Note of all Monasteryes in the Realm, as also the Book of Henry the fourth, I shalbe much beholding to your Worship. Thus you see how bold I am, but it is in love of that Kingdom which your self seeks still to adorne.<sup>87</sup>

It was only natural that Speed should have depended heavily in his massive compilation on the material supplied to him by his fellow antiquaries and by the local gentry of repute. He was not prepared to concoct stories, but relied on the information given him by recognized authorities. Desiring his work to be as accurate as possible, he specifically asked for reliable persons to supply him with the names of every hundred, parish, and notable place within each township.<sup>88</sup> He used this manuscript material freely according to his purpose.

The account of Speed's native Cheshire is primarily based on his own survey, and provides us with a typical description found in the Theatre. The borders and the "forme" (i.e. shape) of Cheshire were discussed first, followed by a rather exaggerated account of the climate and soil: "[In] aire and soile it equals the best, and farre exceeds her neighbours." The account of the ancient inhabitants contained references to the works of Ptolemy, Tacitus, and other Classical authors. The shire was found to be the "Seed plot of Gentilitie," producer of many ancient and worthy families; the men were referred to as "The chiefe of men," while in beauty, grace, and feature, the women were portrayed as inferior to none. The principal commodities were listed next. The town of Chester was given prominence in the narrative; the city castle and the

Minister were described, followed by a brief history of the city, and a statement on the contemporary political divisions. Finally, Speed's dismissal of a certain "wonder" is of curiosity value:

If I should . . . inforce for truth the Prophecie which Leland in a Poeticall fury fore spake of Beeston Castle, highly mounted vpon a steepe hill: I should forget myself and wonted opinion, that can hardly beleue any such vaine predictions, though they be hold from the mouthes of credit . . . [for example] Leyland for Beeston, whe [whol] thus writeth:

'The day will come when it againe shall  
mount his head aloft,  
If I a Prophet may<sup>89</sup> be heard from seers  
that say so oft.'

The Theatre is noticed today only for its cartographic value. Apparently, Speed had access to many of Norden's manuscripts and printed works, and used them quite liberally as sources for his own county maps.<sup>90</sup> However, his own originality in preparing some of the "Chards" (maps), especially the town plans, is undeniable. His contribution is explained in the Theatre: "Some [plans] have been performed by others, without scale annexed, the rest by mine owne trauels, and unto them for distinction sake, the scale of Paces . . . five foote to a pace I have set. . . ."<sup>91</sup> The utilitarian aspect of such plans had been clearly enunciated by Agas in A Preparative to Platting (1596): "The surveyor should so lay out the streets, waies and allies, as may serve for a just measure for paving thereof, distance between place and place, and other such things of use."<sup>92</sup> The value of large-scale maps and plans,

however, is underrated by historians and geographers alike. Drawn up by sixteenth- and seventeenth-century chorographers and cartographers, these often provide important historical or statistical details; depict the site and structure of buildings, many of which no longer stand; or they may form a reliable record of the changes in a town's street plan. In some cases, for example, they can elucidate the street plan of a medieval town. In Speed's case, he quite often gave the sites of buildings which were later destroyed, as in his plans of Hereford and Gloucester.

Speed's work is also distinctive for yet another reason. In basing his Historie on Camden, "that brightest lampe to all Antiquities," Speed dismissed Brutus as a "vulgar received opinion." In his consideration of the Trojan legend he exhaustively searched out the earliest sources and listed the arguments on both sides, citing authorities from Nennius down to Humphrey Lluyd. Speed's conclusion on the subject reveals that his doubt about the Brute legend, if anything, was even more forthright than that of Camden.<sup>93</sup> But the uniqueness of Speed's work is found in a related chapter, that concerning the manners and customs of the ancient Britons. Here, the ancient Britons were portrayed as a barbarous, polygamous lot who dye themselves, wear long hair, and practice "diabolical superstition" as religion. Speed went on to draw a comparison between these primitives and contemporary

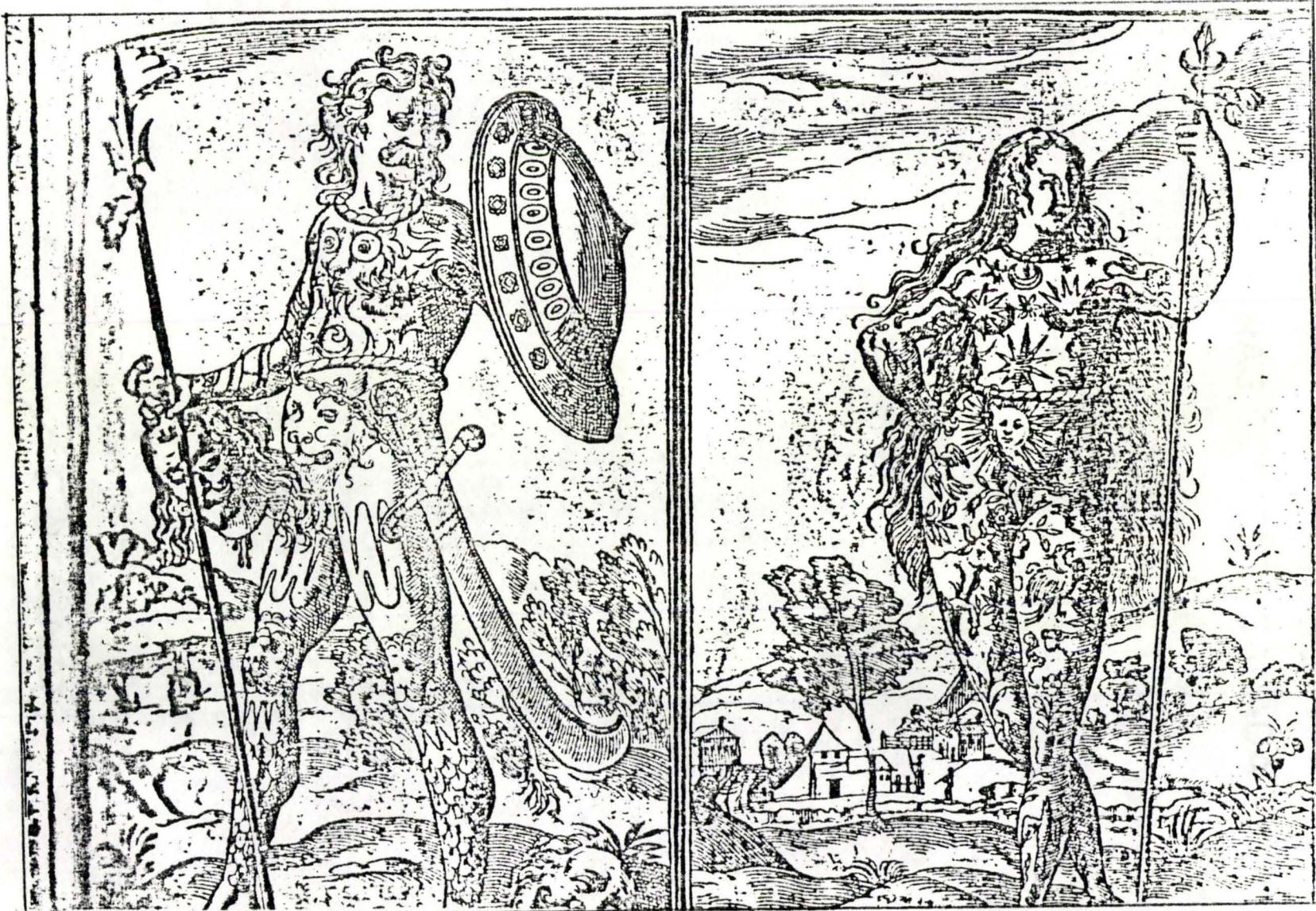


Fig. 8. Speed's depiction of the Ancient Britons, from his 1632 Historie

American Indians, and included two pairs of drawings showing the Britons as he thought they appeared in ancient times.<sup>94</sup> Thus he attempted to depict historical figures literally, only as the evidence of authoritative sources indicated. Speed's intelligent pictorial use of coins, and his improved account (over that of Camden) of Anglo-Saxon England--due to his use of family trees of the principal royal houses--has also been noted by Kendrick.<sup>95</sup>

Like Norden, Speed lamented the "instability both of Man's life, and Glory: (a point fitting for great Princes to think on)."<sup>96</sup> He was quick to moralize, but this may have been in part due to his involvement in theological matters; he was an expert in ancient genealogies. His vehement Protestant bias, like that of Norden, Lambarde, and some of the other antiquaries, is revealed throughout his works. In 1610 Speed received a royal privilege which required that for ten years his Genealogies recorded in the Sacred Scriptures (n.d.) be inserted in every copy of the authorized version of King James's Bible, thus increasing the price of the Bible. In this respect, again like Norden, Speed sought financial gain outside of his main field of endeavour.

While Speed and the other early seventeenth-century chorographers focused their attention on larger units, at least one man--Henry Manship (d.1625)--diligently adapted the same "discursive portrait" style, which they advocated,

to the description of a single town. Manship's History of Great Yarmouth, therefore, also aimed at factually describing the local scene. Although Manship worked on his survey between the years 1612 and 1619, it had to await publication until the mid-nineteenth century.<sup>97</sup> Manship incorporated material from Holinshed, Camden and Speed in his compilation, but most of his information was derived first hand from his own familiarity with the town of Yarmouth and with the immediate countryside.

Yarmouth had previously been described in Thomas Nashe's whimsical mock encomium, entitled Nashe's Lenten Stuffe, Containing, The Description and first Procreation and Increase of the towne of Great Yarmouth in Norffolke: With a new Play neuer played before, of the praise of the Red Herring (written largely in 1598 and published a year later). The long introduction which precedes the panegyric on red herring in Lenten Stuffe contains all of the standard topographical information--a review of the prominent events of the town's history, its unusual situation, the climate, the lay-out of the streets, the havens, etc. But one has to sort out methodically the topographical information from the myth, and sometimes the fine line between the two becomes obscure. That Manship was acquainted with Nashe's satire is seen in his own discussion of red herring:

And here (by way of merriment) let me remember to you,  
an odd conceit of a late pleasant-pated poet, who,  
making a catalogue of national gods or patrons (as St.

Denis for France . . . ) he then termeth Red Herring to be the titular god of Yarmouth. And, in very truth, God by them hath so blessed Yarmouth, that thereby it is right well defended from the penurious porns of pinching povert, which otherwise<sup>98</sup> would long since have piercingly impoverished the same.

Manship, a native of Great Yarmouth, was educated at the Free Grammar School there. He became an Attorney of the Borough Court, and later was elected Town Clerk, a post he held until 1585. He continued on as a member of the corporation until 1604, when he was dismissed for accusing two representatives of the town of behaving in Parliament like "dunces." His relationship with the town authorities from this point on oscillated greatly.<sup>99</sup> In 1612 Manship obtained leave of the corporation "to go to Hutch" (an ancient chest housing the town records) and there to "peruse and copy records for forty days." Apparently, he was now ready to commence his survey of Yarmouth. Finding that many of the records were damaged or missing, he persuaded the corporation to appoint a committee to inquire into the matter. The efforts of this committee were recorded in a book containing a repertory of the documents, which was engrossed by Manship and delivered to the corporation. His work was completed in 1619, and the corporation gratefully voted Manship a gratuity of fifty pounds. It seems, however, that any expectations of fame or profit on his part were not realized, for in 1620 Manship circulated a pamphlet wherein, according to his detractors, he "extolled himself

and defamed the town." Manship was to die in extreme poverty, and today the Yarmouth is virtually unknown outside of his native town. Even Taylor in her study of chorography mentions it only in passing.<sup>100</sup> In editing this work Palmer used one of the several manuscripts copies still extant then, one which he deemed to be the most accurate.

Yarmouth begins with a discussion of the town's name and location and includes a brief history of the incorporation of the town. Interestingly, Manship related how in 1611 he rode fourteen miles to read John Speed's Theatre. He quoted Speed's section on Yarmouth in its entirety, and then corrected Speed as to the time of the incorporation.<sup>101</sup> Interspersed throughout the text we find lengthy descriptions of the situation of "Yermouth." The entire work, replete with quotations, lacks the vitality found in Carew's Cornwall and is strongly marked by the same pedantry exhibited in many of the other works of the period, including non-chorographic literature. It almost conveys the impression that its sole purpose is one of binding the records and charters of the town into one volume for the sake of convenience. Perhaps Manship's claim to erudition, quoted here, was meant to place his efforts in a favourable light in contrast to those of Nashe:

. . . I have for many years, with a firm settled study,  
with my whole heart desired, with all sincerity to  
Antiquity, in this my painful delight or delightsome  
Painfulness, to write the Truth so near as I am able,  
and by probable Conjecture have seriously collected, out

of such Chronicles, Charts, Records, old Pamphlets and writings, as have come to my view, and which in anywise might enlighten my understanding in the truth thereof, wherein I do not assume to myself so much knowledge as desire of Knowledge. The matter itself being very laborious, and of no less difficulty, what pains I have therein taken, as no man thinketh, so no man believeth, but he that hath of the like made trial. Nevertheless by how much the difficulty discouraged me, by so much the more the desire I have truly to advance the reknown of my native Township, hath encouraged me to perform it. And as he that seeketh Flowers in a wide Field and findeth some, is worthy of Commendation, so is it no great imputation if he findeth not all which are there to be had. Neither is it to me any great disparagement if others shall after me find more Plenty.<sup>102</sup>

The history of Yarmouth was treated next, from the Saxons on, followed by descriptions of the buildings of the town. Here we find one of the many digressions found in the text. From a discussion of churches and synagogues we are thrown into a lengthy statement on the propagation of the gospels within Britain (pages 29-31). Yet at the same time Manship is responsible for the preservation of many valuable facts, as in his discussions of the mortality inflicted on the town by the plague of 1348, the Kett Rebellion, and the fortifications erected to prevent the Spaniards from entering the haven. Much of the remainder of the work is, in fact, devoted to an account of the fishing industry and to a meticulous description of the defences and havens. The main pier, for example, is outlined in considerable detail:

. . . 235 yards in length; the breadth, at the foundation, is 40 feet, and at the upper part, 20 feet; artificially built of mighty timber trees, joined together very cunningly, rampired with brush, millstone, and shingle; it hath three tiers of piles, bound with

beams and iron-wicker<sup>103</sup> to break the force of the sea from the pier itself.

There is an intriguing sidelight to the Manship story. One of the sources for Yarmouth was a work containing a brief record of all the remarkable events in the history of the town, thought to have been compiled by Manship's father, known to us as Henry Manship the Elder.<sup>104</sup> It has recently been demonstrated, however, that the authorship of this work should be attributed not to the senior Manship, but to Thomas Damet, one of the two "dunces" alluded to earlier.<sup>105</sup> The younger Manship apparently only referred to this manuscript as one of the parchment books which he perused, and did not mention the name of the author. The confusion arose when a latter-day researcher erringly attributed the authorship to the father.

With Manship's work we come to the end of what may be considered to be the first full-fledged stage in chorographic literature, the "topographical-historical" stage. The next stage, as we shall see, was characterized by work which tended to place more emphasis on the genealogic and heraldic, rather than topographic, element. Although some writers see this as a shift towards a more "scientific" type of study, the predispositions of the regional writers, and their methodologies, remained basically unchanged. The real shift was to come after 1650.

## NOTES: CHAPTER IV

<sup>1</sup>See Richard Carew's epistle "To the Reader," in F. E. Halliday's edition of Carew's survey, found in Richard Carew of Antony, "The Survey of Cornwall" (London, 1953), 77.

<sup>2</sup>Sixteenth- and early seventeenth-century English travellers abroad are discussed in Boies Penrose, Urbane Travellers, 1591-1635 (Philadelphia, 1942); A. Lytton Sells, The Paradise of Travellers. The Italian Influence on Englishmen in the Seventeenth Century (London, 1964); Lillian Gottesman, "English Voyages and Accounts: Impact on Renaissance Dramatic Presentation of the African," Studies in the Humanities 2 (1971):26-32; Charles J. Halperin, "Sixteenth-Century Foreign Travel Accounts to Muscovy: A Methodological Excursus," Sixteenth Century Journal 6 (1975):89-111; Samuel Chew, The Crescent and the Rose (New York, 1937).

<sup>3</sup>See Rene Elvin, "Old Swiss Maps and their Makers," Geographical Journal 19 (1946):272-282.

<sup>4</sup>See Joseph Needham, Science and Civilization in China, 5 vols. (Cambridge, 1954-), 1(1954):517.

<sup>5</sup>For the Dutch, see W. Redmond Cross, "Dutch Cartographers of the Seventeenth Century," Geographical Review 6 (1918):66-70.

<sup>6</sup>Taylor, Stuart Geography, 136; for Taylor, "chorography" and "regional geography" are interchangeable, and here she used the latter term.

<sup>7</sup>J. N. L. Baker, "Academic Geography in the Seventeenth and Eighteenth Centuries," Scottish Geographical Magazine 51 (1935):129.

<sup>8</sup>See J. N. L. Baker, "Nathanael Carpenter and English Geography in the Seventeenth Century," Geographical Journal 71 (1928):261; also, Taylor, Stuart Geography, 136. Carpenter devoted four out of twenty-eight chapters to discussions of plains, rivers, mountains, etc., and provided perhaps the first adequate British discussion of the principles of geomorphology.

<sup>9</sup>Ibid.; Baker, in "Nathanael Carpenter," 11, states that "the book dealt only with the general aspects of geography; and, what was perhaps more serious, it had to meet the competition of new books." Carpenter's book admittedly leans heavily upon foreign sources; see Gordon L. Davies, "Early British Geomorphology 1678-1705," Geographical Journal 132 (1966):253.

<sup>10</sup>E. G. R. Taylor, in The Mathematical Practitioners of Tudor and Stuart England (Cambridge, 1954), 312, claims that the author of this anonymously published work is a man by the name of John Fitzherbert. E. R. Kiely, in Surveying Instruments (New York, 1947), 104, also attributes the

authorship to a man by that name, although he seems to be less certain of this than is Taylor.

<sup>11</sup>Some of the early works which deal with various aspects of navigation include William Borough, Discourse of the Variation of the Compas (London, 1581); Edward Wright, Certaine Errors in Nauigation (London, 1599), and his The Description and Use of the Sphaere (London, 1631); also, William Gilbert, De Magnete (London, 1600).

<sup>12</sup>Among these were the following: Leonard Digges, A Boke named Tectonicon (London, 1562), and his A geometrical practise, named Pantometria (London, 1571); Edward Worsop, A discouerie of Sundrie Errours (London, 1582); and, William Folkingham, Feudigraphia (London, 1610).

<sup>13</sup>Even so, surveying did not undergo a period of great development during the rest of the seventeenth century. This was a time when the best methods of earlier periods were systematized. Most of the major advances in the field, in fact, had to wait until the following century, when machine-divided circles and telescopic methods were employed on a large scale. In general, seventeenth-century mapping work was fairly accurate when the area mapped was not large. The instruments in use at that time, such as the chain, plane table, compass and circumferentor, had their limitations. This resulted in the accumulation of considerable errors in the traverses of large areas. The many admirable property plans dating from this period,

however, the "platts" of parishes or small properties, stand comparison with modern plans relatively well.

<sup>14</sup> See Frank D. Adams, The Birth and Development of the Geological Sciences (Baltimore, 1938), chap. 10.

<sup>15</sup> Robert Hooke was amongst the first to advocate the study of fossils for this reason; see Waller, Robert Hooke, 335, 441.

<sup>16</sup> By "great age" we mean--in the context of late seventeenth-century views on the subject--a period still in the range of thousands of years, not billions, as is the case today.

<sup>17</sup> John Ray, quoted in E. Lankester, The Correspondence of John Ray (London, 1848), 243.

<sup>18</sup> It is doubtful, for example, that potential readers would have appreciated being reminded that denudation was one sign of impending doom. The natural historian Joshua Childrey, in 1661, was perhaps the first to relate actual topographical features to denudation. He associated what he took to be the barrenness of the English chalk Downes with the fact the loose earth "is continually washed away by great rains." He also noticed that in Gloucestershire "the hills, and sides of hills are the most wet and clayie. The cause doubtless is the same with this, to wit, that the rains that fall, wash by degrees the uppermost mould down into the valleys, because it is more loose and light." He continued: ". . . [it] leaves the

underclay behind, because more stiff and fast, and so very hardly to be tempted away"; Joshua Childrey, Britannia Baconica, or The Natural Rarities of England, Scotland, and Wales (London, 1661), 58. Carpenter, as noted earlier, was concerned with certain geomorphological processes and features, but he can hardly be described as a regional writer. Of the chorographers, Owen displays the greatest interest in these.

<sup>19</sup> In this task the natural historians were aided by two influential foreign books on the topic; Bernhard Verenius's Geographia Generalis (1650), and Nicholaus Steno's Prodromus (1669), a treatise on the geological history of the Tuscan landscapes.

<sup>20</sup> One can see this change in the way topography was interpreted in the work of three men, Carpenter, George Owen, and Robert Hooke. Carpenter (Geography Delineated Forth, 167-169) adopted the theory of the Creation, seeing the flood as consisting of waters too placid to uproot a tree, let alone reshape the land. Owen took the contrary view; see Henry Owen, ed., "The Description of Penbrokshire," by George Owen of Henllys, Cymrodorion Record Series, no. 1, 3 vols. (London, 1892-06); 1(1892):82, where Owen refers to "the violence of the generall flood, which at the departinge thereof breake southward and tare the erthe in peeces and separated the Islands from the Contynent, and made the hilles and valleies as we now finde

them." Although the flood theory was to find its fullest development in the late seventeenth-century theories of Burnet, Woodward, Whiston, and others (see the present study, chap. 7), by that time it had stiff competition from the geomorphologically-based one. Seismic activity was widely thought to periodically shatter the earth's crust, raising some blocks of earth while depressing others; this fact was even admitted by some proponents of the flood theory.

<sup>21</sup> Camden, Britannia, 1607 ed., 439.

<sup>22</sup> Sampson Erdeswicke, A Survey of Staffordshire, ed.

Sir Simon Degge (London, 1717). Staffordshire was also edited and published later by Thomas Harwood, on two separate occasions (London, 1820 and 1844).

<sup>23</sup> See the Dictionary of National Biography.

<sup>24</sup> Erdeswicke, Staffordshire, 1717 ed., preface.

<sup>25</sup> Erdeswicke, Staffordshire, 1820 ed., 14.

<sup>26</sup> Ibid., 423-426, "A Brief Historical Account of Beeston Castle in Cheshire." Erdeswicke's collections for Cheshire are found in London, BL, Harleian MS, 473; London, BL, Harleian MS, 5019 contains various collections on heraldry and antiquities in general, including notes taken from several parish annals and other registers; Harleian MS, 818, contains extracts from his Staffordshire collections.

<sup>27</sup> Erdeswicke, Staffordshire, 1717 ed., 13.

<sup>28</sup> Erdeswicke, Staffordshire, 1820 ed., xxxii.

<sup>29</sup> London, BL, Harleian MS, 506.

<sup>30</sup> Sir Simon Degge to George Digby of Sandor, 20

February 1669, as quoted in Erdeswicke, Staffordshire, 1717 ed., preface.

<sup>31</sup> Halliday, Carew, 23. Halliday's slightly abridged edition excludes certain genealogical and heraldric accounts, as well as lists of Knights' fees, acres, and subsidies, but does contain a useful introduction. The text remains true to the original 1602 edition, although the language is modernized. No manuscript of the original survey exists today.

<sup>32</sup> London, BL, Faustina MS, E.; also see Halliday, Carew, 39-40.

<sup>33</sup> Richard Carew to Sir Robert Cotton, 7 April 1605, in Henry Ellis ed., Original Letters of Eminent Literary Men (London, 1843), 98-99.

<sup>34</sup> See Camden, Britannia, 1586 ed., 79, for Camden's assessment of Carew.

<sup>35</sup> In the 1607 edition of Britannia Camden acknowledges, at the end of his account of Cornwall, Carew as his chief guide for that shire; see Francis Lord de Dunstanville, Carew's "Survey of Cornwall" (London, 1811), xix.

<sup>36</sup> Halliday, Carew, 136-137.

<sup>37</sup> Ibid., 82.      <sup>38</sup> Ibid., 89.

<sup>39</sup> Francis Leandro was the author of a description of Italy.

<sup>40</sup> Halliday, Carew, 104.

<sup>41</sup> Ibid., 105.      <sup>42</sup> Ibid., 112.      <sup>43</sup> Ibid., 174.

<sup>44</sup> Ibid., 138.      <sup>45</sup> Ibid., 149.      <sup>46</sup> Ibid., 54.

<sup>47</sup> Ibid., 164.      <sup>48</sup> Ibid., 231-232.      <sup>49</sup> Ibid., 202.

<sup>50</sup> Ibid., 192.      <sup>51</sup> Ibid., 167.      <sup>52</sup> Ibid., 97.

<sup>53</sup> Ibid., 63; also see Dunstanville, Carew's Survey, xx.

<sup>54</sup> Both are contained in Halliday, Carew.

<sup>55</sup> Ibid., 57.

<sup>56</sup> The original manuscript in London, BL, Harleian MS, 6250, has been faithfully reproduced in Owen, Penbrokshire, 1:47.

<sup>57</sup> Ibid., 1:41.      <sup>58</sup> Ibid., 1:42.      <sup>59</sup> Ibid., 1:44.

<sup>60</sup> Ibid., 1:42.      <sup>61</sup> Ibid., 1:54.      <sup>62</sup> 1: chap. 7.

<sup>63</sup> Quoted in John Challinor, The History of British Geology: A Bibliographical Study (Newton Abbot, 1971), 59-60.

<sup>64</sup> Ibid., 60.

<sup>65</sup> Owen, Penbrokshire, 1:64: quoted in Challinor, British Geology, 60.

<sup>66</sup> Owen, Penbrokshire, 1:64.

<sup>67</sup> Owen's Map of Pembrokeshire was published by Camden in the Britannia, 1607 ed. According to Karl von Zittel, History of Geology and Palaeontology, trans. Maria

M. Ogilvie-Gordon (London, 1901), 35, it is "To Christopher Packe that we are indebted for the first geological map of a part of England in his work A New Philosophical-Chronological Chart of East Kent, published in 1743." Also, V. A. Eyles, "Mineralogical Maps as Forerunners of Modern Geological Maps," Cartographical Journal 9 (1972):133, states that "Before 1700 no topographical maps had been published of sufficient accuracy . . . to permit the accurate localization of geological information."

<sup>68</sup> W. H. Fitton, "Notes on the history of English Geology," Philosophical Magazine 1 (1832):443, calls Owen the "Patriarch of English Geologists"; this view was also taken by W. W. Buckland and W. D. Conybeare, "Observations on the South-western coal district of England," Transactions of the Geological Society 1 (1824):312.

<sup>69</sup> Owen, Penbrokshire, 1:103.

<sup>70</sup> Ibid., 1:243.

<sup>71</sup> Ibid., 2(1897):564-566. Although the Armada had been foiled in its attempt to conquer England, Penzance had been taken by the Spaniards in 1595. Thus, the threat of Spanish intervention after 1588 was still real. Henry, Earl of Pembroke and first cousin to Owen's mother, had written in 1595 to Owen with the request that the latter draw a map of Milford Haven and, also, to send Pembroke some other information concerning this harbour; ibid., 2:531-532.

<sup>72</sup>R. A. Skelton, "The Military Surveyor's Contribution to British cartography in the 16th century," Imago Mundi 24 (1970):77-82.

<sup>73</sup>An abridgement of "Mylford Havon" is found in Owen, Penbrokshire, 2:533-563. The original is dated 1595.

<sup>74</sup>Ibid., 2:543, 553; "the Crow the Carre and ye Cattlestone" is in reference to the most dangerous rocks and shoals that abound in the vicinity of the harbour.

<sup>75</sup>Ibid., 2:558.      <sup>76</sup>Ibid., 2:370-373.

<sup>77</sup>Ibid., 2:371.      <sup>78</sup>Ibid., 2:288-360.

<sup>79</sup>Camden, Britannia, 1610 ed., 654.

<sup>80</sup>Speed has been relatively neglected. Brief biographical notices include Taylor, Stuart Geography, 49-51, and John Arlott's Introduction to John Speed's England; A Coloured Facsimile of the Maps and Text from the "Theatre of the Empire of Great Britaine," First Edition, 1611, 4 vols. (London, 1953), 1:7-8. For an evaluation of his work see Fussner, Historical Revolution, 178-179, and Levy, Historical Thought, 196-199. More attention has been directed to his cartographical accomplishments, for example, in John Speed, A Prospect of the Most Famous Parts of the World, London 1627, ed. R. A. Skelton (Amsterdam, 1966), v-xiii.

<sup>81</sup>Greville, later Lord Brooke, was a statesman, scholar, and author. He met an unfortunate end,

assassinated in 1628 by a former servant of his, a man named Hayward.

<sup>82</sup> John Speed, The Theatre of the Empire of Great Britaine (London, 1611), 53.

<sup>83</sup> John Speed, The Historie of Great Britaine (London, 1611). The paging of this work is virtually continuous to Speed's Theatre. The Theatre was reprinted in 1614, 1617 (as A Prospect of the Most Famous Parts of the World), 1646, 1662, 1668, 1676; and, in Latin editions in 1616 and 1646. There have also been many abridgements. The Historie came out in a new edition in 1623 (reissued in 1625, 1627), and in further editions in 1632 and 1650.

<sup>84</sup> Speed, Theatre, 1611 ed., 4.

<sup>85</sup> This discussion is based on Skelton's introduction to the fascimile edition of the Prospect, vii.

<sup>86</sup> Speed, Historie, 1611 ed., "Summary Conclusion."

<sup>87</sup> John Speed to Sir Robert Cotton, n.d., quoted in Ellis, Letters, 110.

<sup>88</sup> Kendrick, British Antiquity, 124, says that Speed was "not prepared to make history of anything but the records of creditable historians who were in a position to inform him of facts actually within their knowledge."

<sup>89</sup> Speed, Theatre, 1611 ed., "The Countie Palatine of Chester."

<sup>90</sup> R. A. Skelton, "Tudor Town Plans in John Speed's Theatre," Archaeological Journal 58 (1952):112.

<sup>91</sup>See Skelton, "Town Plans," 109-110.

<sup>92</sup>Speed, quoted in Skelton, *ibid.*, 115.

<sup>93</sup>Speed, Historie, 1611 ed., 165-166.

<sup>94</sup>*Ibid.*, 166-170.

<sup>95</sup>Kendrick, British Antiquity, 120-125, 165.

<sup>96</sup>Speed, Historie, 1611 ed., 424.

<sup>97</sup>Henry Manship, The History of Great Yarmouth, ed.

C. J. Palmer (London, 1854).

<sup>98</sup>*Ibid.*, 120.      <sup>99</sup>*Ibid.*, ii.

<sup>100</sup>Taylor, Stuart Geography, 52.

<sup>101</sup>Manship, Yarmouth, 6.

<sup>102</sup>*Ibid.*, 19.      <sup>103</sup>*Ibid.*, 96.

<sup>104</sup>Henry Manship the Elder, A Booke of the  
Foundacion and Antiquyte of the Towne of Greate Yermouth,

ed. C. J. Palmer (London, 1847).

<sup>105</sup>Paul Rutledge, "Thomas Damet and the  
Historiography of Great Yarmouth," Norfolk Archaeology 33  
(1963):119-130.

## CHAPTER V

### REMOVING THE "ECLIPSE FROM THE SUNNE"

I have adventured (in some sort) to restore her [Leicestershire] to her worth and dignity, being animated hereto by the examples of many grave and worthy men. . . .

As the seventeenth century progressed, Camden's Britannia and Speed's Theatre came to dominate their field to the extent that no other county surveys actually reached print in the twenty years from the publication of Carew's Cornwall in 1602 until 1622. In fact, if one overlooks the various "quasi-chorographies" produced after 1622, this terminal date (with respect to England, at least) may be extended into the mid 1650s. However, this relatively long period of publishing inactivity does not mean that regional work itself ground to an abrupt halt; antiquaries throughout the nation continued to assemble chorographic material consciously and fervently. But now the emphasis was more on producing studies that were local, not national, in scope, and thus these may have been considered less worthy of publication at this time. There was now a growing tendency to shift the locus of attention from topography and history, in chorographic studies, to genealogy and heraldry. In most cases, in so doing, often the chorographers deliberately wrote for a limited audience, e.g., for a particular

landowner who wished to have the genealogy of his family researched and set out in a manuscript, to be deposited in the family muniment room for the benefit of his descendants. In other instances the chorographies were directed at a larger, countywide audience--but not a national one--simply because the competition in the larger marketplace with the works of Camden and Speed would have been too great. Because these latter two figures had already covered the history and topography of much of Britain, many chorographers apparently now believed that the inclusion of genealogy and heraldry in their work offered the only hope of contributing further to the general goal of uncovering the riches of Britain's physical and human resources.

Since it was immensely easier to investigate in detail the backgrounds of a few prominent local families rather than family backgrounds throughout all of Britain or England, this became the usual course of action. Quite often the patronage of local families, whose histories were reported in such studies, left the authors with little financial incentive to publish. It became normal, therefore, for several manuscript copies of a study to be distributed merely hand to hand locally. In any case, those few authors who did attempt to get their work into print soon discovered that the majority of publishers were unwilling to accept it, not only because of the fear of competing with the national works, but also because the

general public was inclined to find chorographies which included genealogy and heraldry as uninteresting, and therefore unworthy of purchase. Such situations as the ones described above apply to most--if not all--of the chorographies reported in this chapter, even in those cases where history and topography still had their place alongside the heraldry and genealogy. Furthermore, because all of the chorographies covered in this chapter reached their final form in the interval between approximately 1618 and the outbreak of the English Civil War, chronologically they form a cohesive unit for study.

The authors of these works tended to place more emphasis on standard literary sources than their predecessors, primarily because of the nature of their investigations. These required considerably less visual inspection of the countryside and a greater amount of research into family registers. This fact by itself enables them to be counted amongst the first to include lengthy genealogical tables, lists of civic officials and the like, into antiquarian study. Also, except perhaps for Thomas Westcote's survey of Devonshire, these chorographic works generally exhibit a pronounced lack of literary flair, which only contributed to the difficulty of finding a publisher. Because most of the authors were well-educated men, trained at the Inns of Court or at similar institutions, this lack of literary panache can be largely attributed to the dry

nature of their topic, i.e., one based largely on genealogy. This was the age of great scholars such as Edward Coke, John Selden and others, when the legal profession in England was devising innovative ways and means of examining political and legal issues. So, it is not surprising that a new generation--which was quite familiar with law, and included men who in most cases enjoyed the opportunity of retiring to country estates where their appetite for chorography was whetted by the beauty of the surrounding countryside--was soon engaged in examining the locales in a slightly different manner from that of its predecessors. These men were able to apply a formal or practical training in genealogical research to their chorographic studies, thus enabling them, as William Burton metaphorically indicated, to cast light on the antiquities of the land in a new manner.

We may begin with Robert Reyce (1555-1638), whose chorographic activity was among the first of this period to exhibit a slight digression of interest from that of the previous workers in the field. Reyce spent most of his life at Preston, a village in the south of Suffolk. He belonged to a close-knit circle of prosperous local gentry of Puritan persuasion. His wife, Mary Appleton, was the eldest daughter of a family of wealthy clothiers. Many of Reyce's associates and correspondents were men of antiquarian interests. These include John Winthrop of Groton, one of

the Massachusetts Puritans and the first Governor of the colony. Reyce also knew Augustine Vincent, Windsor Herald, aide to John Weever in the compilation of Weever's Ancient Funerall Monuments (a work of considerable interest to antiquaries), and James Stangman, Essex antiquary, a "somewhat shadowy figure," but a member of the Society of Antiquaries who was generous in helping other scholars.<sup>2</sup> Reyce kept up a correspondence with Sir Simonds D'Ewes of Stowlangtoft, the antiquary to whom he was distantly related, and who was associated with Spelman, Selden and Cotton. There are few other details about Reyce's personal life. That he was thought highly of by contemporaries is plain in the notice of his work in several contemporary books, including John Guillim's A Display of Heraldrie: ". . . a worthy Gentleman, whose great charge and care in collecting and preserving the Antiquities of that Country Suffolk merits a large Encomium."<sup>3</sup> That he was kind and charitable is evident in his concern for the welfare of the poor, a fact confirmed by the establishment of a charity at Preston which bore his name. No evidence exists for Reyce's earlier schooling. He may have attended a small grammar school at Boxford near Preston, but he tells us only that Suffolk was the "Country, vnto the which next vnder God, I doe owe that little that I have, for my birth, education, and habitation."<sup>4</sup> His name is missing from the records of the English universities and Inns of Court, but like many

Elizabethan Puritans he studied in Geneva at Theodore Beza's academy. That he was familiar with Latin and possibly Greek is evident directly from his work; that he was knowledgeable on theological issues may be conjectured from his correspondence with John Winthrop. (His last surviving letter, to D'Ewes, was written when he was eighty-two.)<sup>5</sup>

Reyce wrote the Breviary of Suffolk, his major chorographic effort, for his friend and patron Sir Robert Crane, Knight of the Shire and High Sheriff of Suffolk, and sent him the manuscript with the stipulation that it be kept in the Crane family and not published. The Breviary is the most substantial of the three works on Suffolk attributed to Reyce. One, a manuscript anthology of Latin records relating to East Anglia, survives only in a copy in another hand.<sup>6</sup> Another consists of brief accounts of past royalty, nobility, and gentry of Suffolk, accompanied by descriptions of their arms.<sup>7</sup> The Breviary itself was begun about 1602-03, although surviving copies were given their final form between 1618-19, and 1627-31. Several items of internal evidence point to the 1602-03 date for the original of the work. The fact that Reyce was working on it by this date is demonstrated, for example, by a remark about "this last yeares price 1602 of hopps."<sup>8</sup>

Reyce's work, at first glance, seems to follow the classical pattern that William Lambarde had pioneered in Kent a quarter of a century earlier. The organization of

material and the choice of headings is common to both works.

The title appears to be adopted from The Breviary of Britayne (1573), Thomas Twyne's translation of Humphrey Llwyd's Anglae Regni Florentissimi Noua Descriptio (1573).

One of Reyce's immediate inspirations was likely Carew's Survey of Cornwall, which was published at about the same time that Reyce began his own chorography. Both of these works agree not only in the general ordering of content and the titles of the majority of the sections, but often also in the phraseology.<sup>9</sup> The Breviary survives only in two recensions. The core of the work--a general description of Suffolk--remains relatively constant in both of these. One was made for Sir Robert Crane around 1618-19, a transcript of which is in the Harleian Collection (MS 3873); a further transcript of this was used by Hervey for his edition. The second recension survives in the Ipswich Central Library. It was made at a later date, between 1627 and 1631, for an unknown person.

Reyce begins the Breviary, "the best Jewell that I haue," with a series of now-familiar topics. First come brief notices of the name, climate, size, borders, and the rivers and lakes. Perhaps because no publication was intended, there are sections on "the discommodities of the Scite" and "the discommodities of the Soyle." Being in the "fatt of the land" (i.e., wealthy), this shire is first to be spoiled in time of domestic insurrection or strife. In

addition, its close proximity to the centre of governmental affairs renders it susceptible, in Reyce's mind, to an abnormally heavy financial burden. But sorely lacking is a complete topographical description of the county, with the exception of the following general statement:

This country delighting in a continual evenes and plainnes is void of any great hills, high mountaines, or steep rocks, notwithstanding the which it is nott alwayes so low, or flatt, butt that in every place, it is severed and divided with little hills easy for ascent, and pleasant Ryvers watering the low valleys, with a most beautifull prospect which ministreth vnto the inhabitants a full choyce of healthfull and pleasant situations for their seemly houses.<sup>10</sup>

The description of the soil-type is not superior to that found in Norden's works. And, as for minerals, we only find that in ancient times there may have been a gold mine near Banketon. From a discussion of stone quarries, Reyce abruptly switches à la Carew to "things of life," which he takes to include wild flowers, timber, and other like-products. Buildings and other dwelling places are next on the list, but Reyce's description of these is superficial and considerably inferior to that of, say, Erdeswicke.

Much of the Breviary concerns itself with genealogy and heraldry. For information Reyce utilized original documents, especially when he was unable to trace a certain name "either in history or others dissent, or in any records of Knights fees, aydes or tenures."<sup>11</sup> He also relied on various printed works, such as Holinshed's Chronicle and Hakluyt's Voyages. The antiquarian nature of the Breviary

is clearly revealed in this section. Reyce obtained the rest of his information from blazons of arms and epitaphs in churches. On the whole, he shows a scepticism for family tradition, as in his comments on the genealogy of the Waldegraves: "I confesse I have seen this discent following which I dare nott express it for truth, although some of the family doe much doate in it."<sup>12</sup> Many of the regional studies undertaken from this point on resemble Reyce's work as much, it seems, as they do the model established by Lambarde. Most of these, like the Breviary, remained unpublished (for many years at least). It may be that people were in fact more interested in travel accounts, descriptions of voyages and exploration, and in popular rather than local histories.<sup>13</sup> William Webb's A Description of the City and County Palatine of Chester, for example, was written in the early seventeenth century, but not published until 1656.<sup>14</sup> Webb, Under-Sheriff to Sir Richard Lee in Cheshire, rode over the entire shire personally visiting the places he describes. His account is therefore trustworthy, being at the same time a very quaint one. Webb concentrated on "painting" a picture of the lordly houses and county seats in graphic detail.

Webb begins by commending the work of John Norden, regretting that Norden was unable to complete his avowed aim of chorographically describing all of the shires. Likewise, John Speed is noticed for his work. But Webb was

"transported with I know not what longing desire, that some particular Descriptions of other parts and Countyes of the same Kingdome, not yet by any man published might be taken in hand."<sup>15</sup> He therefore decided to partly fill in the gap by producing a study of his own native city of Chester, a study purportedly based on Stow's Survey of London. As one reads Webb's finished product, however, it becomes clear that while Stow's emphasis had been historical and also descriptive, Webb's is upon the ownership of land and upon officeholding. In this respect Chester falls somewhere halfway between Stow's Survey and Reyce's Breviary. In some ways Webb's work fits neatly into the general tradition of chorographic literature. The situation and shape of Cheshire are covered first, and the reader is then swiftly plunged into descriptions of each of the seven hundreds of that county. Here we find a list of dwelling places and their occupants that resembles in many ways a modern county directory:

. . . upon which Brook or River, from Coghal towards Chester, lies next the Lop of Wirvin, the Lands of Iohn Hurleston Esquire; to which also joyns a Demayne of his called Piton Farm; and the next Neighbor to Wervin's upon the said Brook, is Moston, not long since purchased and beautified with a delicate house of Brick, by Mr. 16 Iohn Morgel, Register of the Diocefs of Chester. . . .

The account of the town of Chester dominates the entire work. First, Webb attempts to uncover details of its foundation and the origin of its name, citing the many sources which he has consulted. These include Higden's

Polychronicon, and Camden's Britannia. "Chester," he speculates, is derived from an abbreviation of the Roman "Legescestria." Glossing over the early history of the town Webb, in an attempt to emulate Stow, briefly describes its walls, towers, and gates. The streets are located in relation to one another, but are not examined house by house as in Stow's Survey. The civil and ecclesiastical governments are discussed next, past and present, and excerpts from Domesday Book for Cheshire are included. In general, compared with the chorographies of Carew and perhaps Owen, Chester lacks a certain literary flair. We obtain, for instance, little notion of the nature of the local customs; was "hurling" one of the sports enjoyed by the people? And, what was the physical appearance and dress of the local inhabitants like? Many questions such as these remain unanswered, perhaps partly because Webb was one of that group of writers who had no pressing desire to publish their findings.

By the time Webb was at work on his chorography (about 1620), antiquarian activities were in fashion and were being described as the knowledge proper to a gentleman. It is also clear that curiosity about the history and the geography of one's countryside was often stimulated by brief residence at one of the universities--particularly Oxford--or at the Inns of Court. At the Inns of Court the lawyers were already sifting through the annals of

antiquity, preparing the constitutional case against absolute government. There was the practical side of chorographic research as well, for such knowledge was of use to the administrators of local government.

An example of how these various influences bred an interest in antiquities may be found in William Burton (1575-1645), Squire of Lindley on the border of Warwickshire and elder brother to the more famous Robert, author of The Anatomy of Melancholy. Burton's Description of Leicester Shire (1622) was the first chorography of that county and also proved to be the only chorographic survey of an English county to reach print between 1602 and 1656.<sup>17</sup> Burton was responsible for depositing Leland's manuscripts in the Bodleian Library for safekeeping, and his improvements on Saxton's map of Leicestershire were incorporated in John Speed's Theatre. Among Burton's friends and acquaintances can be numbered Robert Cotton, William Sommer the antiquary, the poet Michael Drayton, and William Dugdale. Some of these friendships were developed while Burton was at Brasenose College, Oxford, where he obtained his B.A. in 1594, and at the Inner Temple. Like Carew, Burton knew several languages and in 1597 he published with Thomas Creede a translation of The History of Cleitophon and Leucrippa from the Greek of Achilles Tatius. In his manuscript "Antiquitates de Lindley" he states that he combined the study of law with literature, and in 1596 he wrote an unpublished Latin

comedy, "De Amoribus Perinthii et Tyanthes." Burton was called to the bar in May, 1603, but due to failing health he soon retired to his estate near the village of Falde in Staffordshire. He then devoted himself seriously to his survey of Leicestershire.

Leicester Shire is dedicated to the Earl of Buckingham. In the Dedication Burton stated his intention of removing the "Eclipse from the Sunne, without Art of Astronomical dimension, to giue light to the Countie of Leicester, whose beauty hath long beene shadowed and obscurred. . . ." In the Preface he indicated that although he was preoccupied in the profession of law, he was inclined to the study of antiquity: ". . . there is no Study or learning so fit or necessary for a Lawyer, as the Studie of Antiquities, and Species thereof." It is here, also, that Burton described being animated by the performance of Camden, Lambarde, Speed, Carew and Norden.

For the most part, Leicester Shire is a loquacious and digressive book. It is not a systematic survey of the county despite a brief introductory description of its topography--a topic which literally permeates some of the earlier chorographies which Burton claimed to follow. Here we find the standard pieces of information; the site and situation of the county (according to Mercator), its shape and extent, an account of the air, soil, and rivers, and a list of the castles, religious houses, market towns, and

parks. All this is painstakingly compressed into approximately seven pages of text, whereas the earlier chorographers usually devoted large tracts to these subjects. Once the topography is disposed of, except for short topographical descriptions that later accompany the entries of places, the remainder of the book is given to an alphabetical index. Burton's main interests are the people of Leicestershire, the noble families and their arms, the churches, the value of the church livings, and especially the holders of the advowson. These items are contained in the alphabetical listings of the towns, manors, and hundreds in which they are located. This is in accordance with the author's goal of setting out titles of lands, manors, and tenements so "that the continuance of them in a Name or Bloud, might be discouered, and the ancient Owner (so farre as could be found) might bee knowne . . ."<sup>18</sup> Burton's book contains many genealogical tables of well known families, their coats of arms and chevrons. It includes such items as a list of the Sheriffs of the county from the time of Henry II onwards, and tables of the abbeys and other religious houses. Burton was especially fond of quoting the inscriptions found on tombs in the parish churches. A standard type of entry, that for the village of Poultney, reads:

Poultney, in the Hundred of Guthlakeston, not far from Misterton. This place gave name to the ancient family of Poultney of whom I have spoken before in

Misterton. In the 23. yeare of Edward the third, Sir John de Poultney was Lord heereof. This was sometimes a village, as appeareth by an olde Roll, made in the time of King Edward the first, setting downe the Townes in every Hundred; but now it is utterly decayed, not one house remaining. It is in the Parish of Misterton, and had a Chappell, which now is also ruined and gone.<sup>19</sup>

There are numerous digressions scattered throughout the work. In describing, for example, Bardon-Park's quarry hill as not as imposing as Athos, Olympus, or Tenerife, Burton listed the authors who wrote about these other hills. Furthermore, he felt obligated to give his own hypotheses about the origin of hills, along with samples from other opinions on the same subject. At diverse points in the text we also find a history of leprosy, a discussion of the incorruptibility of bodies and reasons for embalming, and a story of the origin of knight's service (with a definition of scutage). The knowledge inherent in these digressions was for the contemporary reader probably not as important as the fact that they tended to inject a certain amount of levity into the otherwise relatively dry and tedious commentary.

Apparently, Burton began compiling his survey as early as 1597, without "any intendment that it should ever come to the public view, but for my own private use, which after it had slept a long time was on a sudden raised out of the dust," and then, "by force of an higher power drawn to the press, having scarce an allowance of time for the furbishing and putting on a mantle" (the "higher power" was

Buckingham).<sup>20</sup> Aware of its defects, Burton intended to publish a new edition and so he spent many years collecting new material and making corrections to his original publication. The outbreak of civil war, however, prevented any further issue.<sup>21</sup> Burton was not the first man to make collections for a study of Leicestershire; he was anticipated by both John Rous and by Henry Ferrars of Baddesley Clinton, Warwickshire. Ferrars, another rather obscure figure in the annals of chorography, perambulated both of these counties, beginning his trek many years before Burton commenced his own survey. Ferrars's genealogical and heraldric collections were liberally used by Camden, Erdeswicke, and Dugdale, all of whom acknowledged their indebtedness to him.<sup>22</sup> Burton was also encouraged to undertake a survey of Warwickshire and began to put together all the notes and material on this county which he had collected in the course of his researches, being "willing to furnish him therewith that shall undertake the illustration of the countye."<sup>23</sup> As it turned out, William Dugdale, a generation later, was the first to publish a study of Warwickshire, having been originally inspired by Burton's efforts. Burton, it seems, was at the centre of a Midland antiquarian circle which included Dugdale.

Kendrick describes the quality of Burton's antiquarian studies as "scientific," but mainly in the sense that Burton attempted to be scrupulously accurate and

thorough in recording what he personally found in every church in Leicestershire.<sup>24</sup> Most of the chorographies continued to be styled, at least in theory, in the Lambarde mode. The new direction, however, definitely was towards placing more emphasis on genealogy and heraldry than was formerly the case with Norden, Carew, and the earlier chorographers in general.

The tale of chorography from 1622 to mid-century continued to be largely one of unfulfilled ambition. A case in point involves the attempts at a description of Devonshire. Three men laboured individually on chorographically surveying this county. "There were between 360 and 400 indisputable gentry in Devon . . . the descent of whose property is the main concern of the contemporary county historians--Pole, Westcote, and Risdon."<sup>25</sup> Not one of the chorographic works of these men was published in the seventeenth century. And yet, together they form a distinct group (which will be examined next), not only because of their common subject (Devonshire) but also because of the productive interchange of ideas that circulated amongst their authors.

Tristram Risdon (1580?-1640) illustrates the interest of Puritan gentry in chorography. He is described in the Dictionary of National Biography as "apparently a Puritan, somewhat inclined to preach and moralize, but his observations are nowhere obtrusive." Born at Winscot St.

Giles, near Torrington, Devonshire, Risdon was admitted into either Exeter College or Broad Gates hall (now Pembroke College)--the existing evidence for his education is unclear at this point--near the end of the reign of Queen Elizabeth. He left Oxford without taking any degree, and retired into his own county upon having obtained the patrimony of the estate at Winscot. This life of relative leisure afforded Risdon the time to indulge in collecting material towards the compilation of a survey of his native county. With help from his intimate friends, the aforementioned Sir William Pole and Thomas Westcote, he was able to produce such a work. There were supposedly only manuscript copies in existence until 1714, and his survey was not properly printed until 1811.<sup>26</sup> It was begun in 1609, according to Anthony à Wood, and finished in 1630. There is evidence, however, that Risdon kept on adding material to his survey well into the 1630s, and that his intention from the start was to have it published.<sup>27</sup> This was prevented by his death and because his executors either neglected to publish it posthumously or else were hindered in this task by the outbreak of civil war.<sup>28</sup>

Risdon's chorography is not entirely devoid of topographical detail. Risdon locates the towns, hundreds, rivers and roads, and generally notices topographical features throughout the book. The first few pages of Devon concentrate on the ancient history and geography of the

region, citing Ptolemy and Camden as authorities. In discussing the origin of the name "Cornwall," Risdon is unable (like Carew before him) to discard totally the Brute legend:

Some I know would have this country when it was all one province, to be called Corinea, of Corineus, cousin into Brute, a special man of account under him, whom he rewarded with this region at his arrival; which relation, others do think, carrieth no other truth than an ancient tradition; yet, forasmuch as it is left unto us from our ancestors, it was against humanity to reject the <sup>9</sup>some, and to derogate credit from that which hath so long time <sup>29</sup>been received from, and found so many patrons.

It may be that Risdon was more than just a little influenced by Carew, a man whom he regards as having described Cornwall "so eloquently and learnedly."

We next read of the extent of the shire, the climate, and the courage of its inhabitants (which apparently has, over the ages, abated due to a decrease in the amount of "manly exercises"). In Risdon's time the roads were exceedingly bad throughout Britain, and they were probably in worse shape in Devon than elsewhere, being, as Risdon tells us: "rough and unpleasant to strangers travelling those ways, which are cumbersome and uneven, amongst rocks and stones, painful for man and horse. . . ." <sup>30</sup> At length this is followed by an account of the principal soils in the county. These are divided into four main types. The southern part of Devon is esteemed by the author for its fruitfulness, and is considered the "Garden of

Devonshire" in contrast to the lean and barren north and west. Like Carew and Owen, Risdon was also interested in new developments in agricultural production, such as the use of lime as a manure. His comments on this practice are enlightening:

Of late, a new invention has sprung up, and been practised, by burning lyme, and incorporating it for a season with earth, and then spread upon the arable land, hath produced a plentiful increase of all sorts of grain amongst us, where formerly such never grew in any living man's memory.<sup>31</sup>

This section on agriculture and husbandry concludes with an account of the commodities and livestock found in Devon, and contains a quaint comment on the value of "cyder," typical of the many digressions in the book: "a drink very useful for those that navigate long voyages, whereof one tun serveth them instead of three tuns of beer and is found more wholesome drink in hot climates."<sup>32</sup> Risdon has much more to say of the inhabitants, but not before briefly commenting on the county's minerals, rivers, bridges, and havens (once again we hear of the herring and pilchard industry). The usefulness of a "miraculous" loadstone for sailors is mentioned, but the exact location of the loadstone in Devon, and its properties, is not reported on in a scientific manner until much later.<sup>33</sup>

Risdon ventures to describe the various classes next: gentry (including noblemen), merchants, yeomenry, artificers, "mechaniches" (tradesmen), and labourers. The

pastime of hurling is on the decline, as the "common sort" of people are no longer able to afford to observe all the holidays during which such pastimes are enjoyed. The labourer's existence is one of misery; this is particularly so of the "spadiard," the daily labourer employed in the tin works, whose:

. . . apparel is coarse, his diet slender, his lodging hard, his drink water, and for lack of a cup, he commonly drinketh out of his spade or shovel. . . . His life most is in pits [literally] . . . and in great danger because of the earth above his head is in Sundry places crossed over with timber to keep the same from falling.<sup>34</sup>

Risdon has very little to say specifically about the role of women within the framework of Devon society of the time, an omission which his reviewer finds unpardonable: "after having said so much on the Bravery of our Men, not to take Notice of the other Sex; as if their Artillery did not do as much Execution on its proper Objects, as the Swords and Guns of the former when engaged with an army."<sup>35</sup>

Except for a short discussion of the ecclesiastical and civil administration of the county, the remainder of Devon concerns itself, as Risdon states, with:

. . . the particular places, with their ancient and most eminent families, or any other memorable matter, that hath come within the compass of my knowledge, worthy the leaving to posterity; wherein many ways may be used: as by taking the tythings or having the hundreds for my guide; by the archdeaconries as they are favoured, or by the course of the rivers. But propounding herein an order to myself, I purpose my beginning in the east part of the county, and with the sun, to make my gradation into the south, holding course by the river Tamer, to visit such places as are offered to be seen upon her

banks. Lastly, to take notice of such remarkable things as the north parts afford.<sup>36</sup>

This is precisely what Risdon proceeds to do, much in the manner of Reyce or Burton, but with the addition of slightly more topographical content. There is certainly more than enough genealogical information, but at least we are not inundated by inscriptions. Interesting bits of information are passed on to us: descriptions of statues of antique beauty, such as those found at Thorncome; brief accounts of historical events, such as the defeat of the Danes at Axminster; mention of prominent contemporary Devon sons, including Nathaniel Carpenter, the geographer from Uplime; or, lines of poetry, whose authorship is usually not disclosed, as those which concern the Tamer River (which divides Cornwall from Devon and the rest of Britain): "On this side Tamer the English sees, And thence the Britons eke it eyes."<sup>37</sup>

In compiling his chorography Risdon relied to a greater degree on written sources--Camden, Carew, Pole, Westcote, and Richard Hooker (author of a sixteenth-century survey of Exeter)--than on his own personal observations of the contemporary scene.<sup>38</sup> Risdon also left in manuscript a "Notebook" containing further genealogic and heraldric collections on Devon, which was later edited (in 1897) from the original manuscript by James Dallas and Henry G. Porter.<sup>39</sup> Written mostly between 1608 and 1628, it was

therefore contemporaneous with Devon. It is basically a mass of heraldic information which includes the arms of many families not found elsewhere. More space is devoted here to an account of the feudal baronies of Devon than to any other topic. It also contains lists of the Sheriffs, Justices of the Peace, Mayors, and Knights of the Shire. Much of the information found here is taken from the original deeds which passed through Risdon's hands at one time or another.<sup>40</sup>

In Devon, Risdon's entry on Calcombe House acknowledges the value of the labour of Sir William Pole (1561-1635) towards his own work:

He [Pole] was the most accomplished treasurer of the antiquities of this county; and, had he been pleased to have been the author of this work, the worth of this county, the natives thereof, and his own sufficiency, would have been better known. Such a gift had he of rare memory, that he would have recited upon a sudden the descents of most eminent families from whose lamp I have received light in these my labours.<sup>41</sup>

Pole's story is not unlike that of many of the other chorographers. Having obtained an education at the Inner Temple, he was placed on the Commission of the Peace for Devon, served as High Sheriff of Devon in 1602-03, and represented Boissiney, Cornwall, in the Parliament of 1586. He was knighted by King James I at Whitehall in 1606. Pole spent most of his life at Colcombe, which estate he had inherited from his father. It is not too difficult to imagine him spending many an evening conversing with Risdon

and Westcote, trading with his friends pieces of information of an antiquarian nature. After all, Pole was "learned also, not only in the Laws, but in other polite matters. He was very laborious in the study of Antiquities, especially those of his own County, and a Lover of that venerable Employment."<sup>42</sup> At his death in 1635 Pole left only his unfinished papers for posterity, never having completed in its entirety an individual survey of the county. Judging by a letter he wrote to a man named Reynell, seeking genealogic information from him, and in which Pole stated his "purpose (God willing) to set out something for the Antiquities of Devonshire," Pole had already begun his self-appointed task of researching the antiquities of that county as early as 1604.<sup>43</sup>

Of special interest here are the two manuscript folio volumes entitled "The Description of Devonshire," which were printed in 1691 by John William de la Pole. Apart from these, Sir William Pole left several other volumes of manuscripts including one containing deeds, charters and grants, compiled in 1616; a thin volume containing coats of arms; and a volume of deeds and grants to Tor Abbey.<sup>44</sup> Exactly what sort of information is contained among these papers? Certainly it was not topographical, for there is little enough of this in Pole's work. For the most part it was the genealogic and heraldric material that Risdon valued so highly. The "Description"

contains an account of the ancient baronies of Devon or, more specifically, of their holders from the time of William I; lists of the Knights of Devon and of the more prominent statesmen and military men of the county; and a catalogue of the High Sheriffs of Devon. Pole also included an account of the hundreds (beginning, like Carew and Risdon, in the east), focusing on the holders of the manors within each parish, e.g.:

Uphay, before sett downe standinge in the side of an hill, upon the west of Axmister, and over ye river Ax, standinge in an advanced ground, tooke his name of his scite, and gave his name unto his dwellers; for it appears yt many of that name successively enjoyed the same, untill it was transferred. . . .<sup>45</sup>

Pole used the standard literary sources; Hooker, Holinshed, Domesday Book, old deeds and charters and inscriptions, etc. The only topographical information of any consequence is that for Exeter. The site, shape and extent of the city are outlined, the principal buildings, gates, and bridges are mentioned, and the general street plan is described.<sup>46</sup>

The third member of this informal Devon circle, Thomas Westcote (1567-1636), is the author of A View of Devonshire in 1630.<sup>47</sup> Westcote's work is based upon the same plan as that of Risdon, but is less comprehensive. The mutual respect these men held for each other is displayed in Westcote's entry for Winscott:

My worthy friend, Mr. Tristram Risdon, we are emboldened to visit you in our travayle, to have only a collation of your collections, observations, witty and pretty concerts, antique names of places and families, and

therewithall your company awhile, the better to illustrate and make know the worth of your county and the natives thereof; and to give these gentlemen fuller satisfaction and content to such questions as out of their curiosity they shall demand: you may not play the nice museum with us, who requested, would scarce tune his instrument, but voluntarely will crack all his strings. Here is good company, and yours added, we shall need no more; but shall pass our journey <sup>48</sup> pleasantly, with celerity.

The details of Westcote's life are sketchy. Born at Shobrooke in Devon, in his youth he was at one time or another a soldier, a traveller and a courtier. It seems that he was not the only adventurer in the family; his brother George, a captain in the army, died at the age of twenty-seven in the disastrous expedition against Lisbon in favour of Don Antonio, the Portuguese pretender. Thomas lacked the formal legal training experienced by many of the other antiquaries, but was apparently self-educated to a large extent, "having by ordinary reading, observation, search, and discourse, collected long since some few particulars of the antiquities and other notes and observings of this County."<sup>49</sup> In middle age he retired to a private country life, probably residing at West Raddon with his eldest brother Robert.

Westcote was anxious to undertake a chorography of Devon similar to that accomplished for Cornwall by Carew. Aside from Risdon and Pole, the "primum mobile," as Westcote puts it, behind his discourse was Edward Bourchier, the Earl of Bath. Bath, "cheerfully animated" and "seriously

required" him to compile this work.<sup>50</sup> It appears, however, that in the end Westcote was too modest to have it published. (At one point, page 446, he refers to it as a "bundle of waste paper"). Devonshire, although not considered a classic in the annals of English literary history, compares favorably with Carew's work. Even if it has its share of egregious errors, still it provides for some entertaining and amusing reading. Westcote's aim is to intermix a "pleasant tale with a serious discourse," or, "an unwritten tradition with a chronicled history, old ancient armories and epitaphs, well near buried in oblivion . . . some etymologies seeming and perchance strange and far fetched." His hope is that these matters will give recreation "to a wearied body and mind (that reads for recreation), with more delight and content for variety, than dislike the severe critic for simplicity, vulgarity, or doubt of verity."<sup>51</sup> In its overall plan Devonshire does in fact approximate the organization of Carew's Cornwall, or even that of Lambarde's Perambulation. Book One treats general topics, and Books Two through Five survey the shire systematically by major divisions and hundreds.

Westcote tackles his task in a manner quite familiar to us by now. The first item on the agenda is a disquisition on the origin and etymological derivation of the name "Devon," one which depends heavily on the Britannia. Westcote is especially anxious to impress upon

the reader that the origin of names is most uncertain. He then delineates Devon's geographical boundaries while sketching, in broad strokes, her market towns, forests, parks and rivers. Preliminaries out of the way, he commences a lively account of the inhabitants. The forefathers were hardy ("whereof the quantity of a bean would satisfy nature in such sort"), but "delighting in the sweetness of foreign dainties," they acquired a weaker constitution.<sup>52</sup> This has apparently improved because the current natives are physically strong, "bold, martial, haughty of heart, prodigal of life, constant in affections, courteous to strangers, yet greedy of glory and honour." Westcote is inclined to constantly quote long and irrelevant passages from the classics, and here he applies a verse from the poet Pindar (on Lacedemonia) to his own country:

Their grave advice is found in aged brains;  
Their gallant youths are lusty lads indeed,  
Which can both sing and dance in courtly trains,<sup>53</sup>  
And daunt their foes with many a doughty deed.

He also relates a story about the heroics of his countrymen, which he found in Speed.<sup>54</sup> The section on the inhabitants is concluded by a discussion of various classes, one in which such obvious terms as "nobility" and "husbandry" are nevertheless given lengthy definitions.

Westcote then embarks upon a methodical discussion of the agriculture, minerals, shipping and commodities of the shire, one which catches the reader's attention and

fixes it on the unique properties of the region. But the reader is referred to Carew's Cornwall for a complete account of the manner of discovering and treating certain metals. Westcote's pride in his native "country" is revealed in the account of Devon's mariners:

. . . the whole wide world brings forth no better, whether you will impress them for valour to adventure, or knowledge to perform any action; painfulness to undergo, or patience to endure, any extremity, adversity, or want whatsoever: all which in one I may boldy aver, and yet not be taxed for over-valuing of them or their worth.<sup>55</sup>

He extends this pride, like many of the chorographers, to cover the entire nation, describing the sovereign's navy as "the sinews of our strength."<sup>56</sup> What follows is a record of the political, ecclesiastical, and military divisions of the county, one which by now seems so natural a part of the narrative in chorographic description that it is easy to forget its documentary value. Westcote borrows heavily from the works of his fellow chorographers; obviously, like them he felt little compunction about appropriating work by other scholars, if desirable, with or without citation of sources. Originality was not necessarily a main aim amongst the antiquaries. What mattered was that such borrowing was, in reality, little more than an exchange of information towards the attainment of a common goal.

The core material is contained in the last four books. These are particularly concerned with the ownership of land and with tracing the descent of property. Westcote

considers the inclusion of this "particular view" of the hundreds, towns, parishes, etc., necessary so that "nothing may be defective of what is spoken of in the survey or description of other counties." Even here, however, the author's extreme modesty shows through. He considers himself too defective in good judgment, learning, and time, to write a chorography worthy of his audience. Thus, he is only able to present them with a "bare relation, broken and independent fragments."<sup>57</sup> And yet we find ourselves transported across the countryside in a pleasing manner, accompanying Westcote in his literary perambulation from one hundred to the next:

But let us Spend no idle time; and for our easier and better proceedings let us again return to Exmoor. . . . After this pause we will with an easy pace ascend the mount of Hore-oke-ridge, not far from whence we Shall find the spring of the riveret Linne; which in his course will soon lead us into the north division: For I desire you should always swim with the stream, and neither stem wind nor tide.<sup>58</sup>

Along the way we encounter gossip or fables which Westcote has knowledge of, such as the tale of the "nymphs of Torridge Spring," or a relation of a "professor of physick" (doctor) whom the author knew personally.<sup>59</sup> Also, there is slightly more topographical material here than in the surveys of his two Devon compatriot antiquaries, of the type relevant to a study of descriptive geography:

Barle yields nothing to Exe in quantity, and seems as if she would strive for superiority, as having the first bridge of stone, as otherwise unpassable, and that in the midst of the forest; near which is a large deep pool

which they name Symon's Bath, as a place where one Symon used to bathe himself, and is said to have been . . . another Robin Hood, and standing in outlawry kept this forest; and in the moors of Somerset there is a burrow or fort called, by the inhabitants, Symon's Barrow. . . .<sup>60</sup>

Besides his chorographic survey Westcote was the author of the "Pedigrees of most of our Devonshire Families," a compilation containing much additional genealogic information. This work is also included in the 1845 edition of his survey.

Two of the last county surveys to be completed before the outbreak of civil war were those illustrating the counties bordering Westcote's Devon, namely Dorset and Somerset.<sup>61</sup> Both works were executed by Thomas Gerard (1582-1634), who was primarily interested in genealogy and the ownership of land.

Gerard was a member of a family long-settled in Dorset. It is quite possible that he personally knew Camden and members of his circle, since he had studied at Oxford (Gloucester Hall), matriculating from there in June, 1610. Eight years later he married Anne, the daughter of a Robert Coker of Mapowder, Dorset, and settled at Trent, Somerset. Gerard was familiar with both of these shires. His two surveys appear to be contemporaneous, written over an extended period of time during the first quarter of the seventeenth century and completed about 1633. Both works are arranged on exactly the same plan, i.e., they name a

river, then proceed to enumerate all the towns along its banks:

For the order of this View or Survey of Dorset, I shall neede noe better, or more warrantable President, than the learned and judicious Camden, and therefore with him I will beginne at the surest and certainest Bound, the Sea; which from the first Westerne Limite I will follow Eastward, untill it forsaketh this Countie; and by the way observe what Rivers runne into it, whose Streames whall be my Guides, even from their Springs and Fountaines, untill they take up their Lodgeing in the Ocean; for on these Rivers and their Branches are generallie Seated those Places of note, which I shall in this <sup>62</sup> my journey observe, I willinglie imparte unto you.

Furthermore, in his two works particular emphasis is placed upon the importance of exactitude in noting heraldry, and both also contain the same type of unusual epithets and quaint expressions.<sup>63</sup> Gerard's chorographies exhibit a more professional quality than does Westcote's Devonshire.

However, contrary to the opinion of E. M. Bates, editor of the Somerset, who believes that the "topographical descriptions are not confined to dry details, but reproduce the scene as Gerard saw it," the reader of Gerard's surveys finds little satisfaction in his rather curt treatment of the picturesque landscape.<sup>64</sup> Certainly there are a few vivid descriptions based on personal observation; the floods seen from Langport and Somerton, the pleasant walks through orchards and gardens, and so on. But these are rarely presented. There is little attempt at local colour here, and only occasionally is historical material of a non-genealogic nature included.

Both surveys begin by describing the farthest western limit of each shire, progressively reporting the scene on a west to east schema. A typical entry outlines the derivation of the name of a place, its "antient" and current owners (or residents), its settlement history where documentary evidence is available, and, on occasion, the topography as well. The latter is given prominence in the account of Weymouth, one of the seaside towns which engaged in a steady commerce with France and Newfoundland:

Weymouth as nowe it is but little, consisting chieflie of one Streete, which for a good space lieth open to the Sea; and on the back of it riseth an Hill of such steepenesse, . . . from whence you have a faire Prospect of the Towne and Haven lieing under: And from the other side you may see Weake, Mother Church of Weymouth Melcombe on the other side, though the River much surpasseth the other for Conveniencie of Scite; for this standing on a Flatte affordeth roome for Buildings, with a Market Place and convenient Streetes, and also Yarde<sup>65</sup> for their Wares. . . .

Gerard, on the whole, is averse to paying attention to the kind of gossip which Westcote delighted in recollecting. The closest he comes to this is in his rare presentation of pieces of trivia particular to a place, as when he tells of a Dutchman who discovered the alabaster mines at Minehead.<sup>66</sup> Had he been more concerned with such incidental details we might today have a more vivid picture of what he personally experienced.

Gerard made use of a variety of sources including the standard epitaphic inscriptions, parish registers, and old deeds and cartularies, etc. His history of a manor in

lay hands usually begins with a Plea of King John's reign, or an Inquisition post mortem of the early thirteenth century. The muniment rooms of his many friends among the gentry were also open to Gerard's researches, and he may have personally known several of the other chorographers. He refers to Carew's survey in the text of Somerset (page 179), to Pole's collections (page 127), and on several occasions to William Burton, the chorographer of Leicestershire. It may also be that Gerard had access to the manuscripts left by Leland which had passed into Burton's possession.<sup>67</sup> Gerard also refers frequently to Camden's Britannia, and he consulted other contemporary works, such as Weever's Funerall Monuments.<sup>68</sup> This book has been noted before; it was utilized by many antiquaries in their work, even though it covers only the dioceses of Canterbury, London, Rochester, and Norwich. Weever, a friend of Cotton, Selden, and Spelman, had access to Cotton's library and to the Office of the Herald. But Funerall Monuments is not a chorographic study at all. It contains inscriptions from the various monuments found in parochial churches, cathedrals, tombs, sepulchres, etc., information of a type useful to all learned men. They no doubt shared Weever's sentiments concerning the preservation of these relics of the past:

And also knowing withall how barbarously within these His Maiesties Dominions, they are (to the shame of our time) broken downe, and utterly almost ruined, [their]

brasen Inscription crazed, torne away, and pilfered, [by] which inhumane, deformidable act, the honourable memory of many vertuous and noble persons deceased, is extinguished, and the true understanding of diuers Families in these Realmes . . . is so darkened, as the true course of their inheritance is thereby partly interrupted.

And yet Weever seldom recorded archaeological finds, nor did he exhibit an appreciation of their intrinsic value. In this respect he was no different from his contemporaries, including Gerard.

The only other survey of an entire county executed before the outbreak of civil war to incorporate genealogic or heraldric information was Sir John Doddridge's The History of the Ancient and Modern Estate of The Principality of Wales, Dutchy of Cornwall, and Earldome of Chester (1630), the book Carew wished to consult when he was contemplating a second edition of his own chorography. Doddridge (1555-1628), a native son of Devon, graduated B.A. from Exeter College, Oxford (1576), became a member of the Society of Antiquaries, and spent most of his life holding various political and judicial posts.<sup>70</sup> His History is vastly different from nearly every one of the chorographies examined thus far. Thus, chorographers such as Carew, according to McKisack, "would have had little to learn from Doddridge, apart from a few points of law and finance," and she rightly states that the History adds little to our own knowledge of the local history of the region it describes.<sup>71</sup> This work, in contrast to what one generally thinks of when

considering the limits of a chorographic study, contains virtually no topographical information. Also, except for Giraldus, Matthew Paris, David Powel, and Humphrey Lloyd, Doddridge (unlike Lambarde) reveals no knowledge of the usual literary sources. The form of the book is that of an historical treatise on the succession and manner of the government of Wales, and of the succession and revenues of Cornwall and Chester. Dedicated to King James, the History is shorter than most of the other chorographies. It is divided into three major sections, one for each of the areas under consideration. Doddridge introduces each section with a brief general description, but even these introductions are historically, not topographically, oriented, e.g.:

The uttermost part of this island towards the West, stretching it selfe by a long extent into the Ocean, is called the County of Cornwall; lying over against the Duchie of Britaine in France. The people inhabiting the same are called Cornishmen, and are also reputed a remnant of the Britaines, the ancient Inhabitants of this land: they have a particular language, called Cornish, (although now much worne out of use) differing but little from the Welsh. . . . This territorie was anciently a Dukedom, but a little before, and also after the Norman Conquest, it was an Earledome, and so continued until the eleventh yeare of King Edward the Third, at which time it was of new constituted a Dutchie, and the first Dutchie that was erected in England after the Said conquest.<sup>72</sup>

The section on Wales begins with an examination of the principality previous to its conquest by Edward I. We are informed of such diverse matters as the origin of the "Baroyes of Marchers," the political and judicial administration, the yearly revenues during the time of the

Black Prince, the present revenues, and the fall of Richard III: "But for that the prosperity of the wicked is but as the flourishing of a greene tree, which whiles a man passes by is blasted dead at the roots, and his place knoweth it no more."<sup>73</sup> The other two sections proceed along the same lines, describing the revenues, listing manors, and so on. In his account of Cornwall, however, Doddridge does take time to extemporize on the different kinds of "tynners and tynne," and on the coinage, topics already covered by Carew. Here Doddridge was more concerned with the Classical writers than with contemporary literature. In his treatise on mining, for example, he quotes from Diodorus Siculus, a writer on mining from the Augustan age.<sup>74</sup> Nevertheless, the remainder of Doddridge's material is derived from official or legal sources such as charters, statutes, chancery warrants, and patent rolls.

Doddridge's quasi-chorographic study helped give rise to the trend that saw few--if any--of the remaining surveys of the first half of the seventeenth century adhere to the "standard" chorographic models established earlier, whether they focused on history-topography or on genealogy-heraldry-topography. In this respect his work was a portent of things to come; of the unsettled state regional writing was to fall into with the coming of the English Civil War in the next decade.

## NOTES: CHAPTER V

<sup>1</sup>William Burton, A Particular Description of Leicester Shire (London, 1622), preface.

<sup>2</sup>McKisack, Medieval History, 147-148.

<sup>3</sup>John Guillim, A Display of Heraldrie, 2d. ed. (London, 1632), 341. Guillim's book, with its mythical menagerie engraved as armorial bearings, was exactly the type of book Sir Thomas Browne would later complain of as one perpetuating outworn creeds; see Robert Ralston Cawley and George Yost, Studies in Sir Thomas Browne (Eugene, 1965), 4-5.

<sup>4</sup>Robert Reyce, quoted in C. G. Harlow, "An Unnoticed Observation on the Expansion of Sixteenth Century Standard English," Review of English Studies, n.s., 21 (1970):170.

<sup>5</sup>Letters from Reyce to D'Ewes are contained in London, BL, Harleian MS, 376, fol. 149, and Harleian MS, 380 fols. 136-137.

<sup>6</sup>Oxford, Bodleian, Rawlinson MS, B, fol. 1424.

<sup>7</sup>This work bears no title. It survives in a number of copies, including one found in a volume entitled "Collections for Suffolk" in the College of Arms.

<sup>8</sup>Lord Francis Hervey, ed., Suffolk in the XVIIth Century: "The Breviary of Suffolk" by Robert Reyce (London, 1902), 25.

<sup>9</sup>C. G. Harlow, "Correspondence," The Review of English Studies, n.s., 21 (1970):421. Reyce's work probably also owed something to Erdeswicke's interest in pedigrees and land ownership.

<sup>10</sup>Hervey, Suffolk, 25. <sup>11</sup>Ibid., 206.

<sup>12</sup>Ibid., 210-211.

<sup>13</sup>Louis B. Wright, "The Elizabethan Middle-Class Taste for History," The Journal of Modern History 3 (1931): 175-197, has more to say on this topic.

<sup>14</sup>Published by Daniel King, an engraver, along with the works of several other writers (William Smith, Samuel Lee, and James Chaloner) under the title The Vale-Royale of England, or County Palatine of Chester (London, 1696). King's intention was to contribute to the honour of the county of Cheshire by "restoring to light its antient glory." The Dedication is by King, as are the engravings.

<sup>15</sup>Ibid., 1.

<sup>16</sup>Ibid., 5. J. P. Earwaker, in East Cheshire: Past and Present (London, 1877), 8-15, has more to say on the early surveys of that county.

<sup>17</sup>By the time Burton's Leicester Shire was published the chorographies of four English counties had already appeared in print--Lambarde's, Carew's, and the two by Norden. At least six others existed in manuscript.

<sup>18</sup>Burton, Leicester Shire, preface.

<sup>19</sup>Ibid., 221.

<sup>20</sup> John Nichols, The History and Antiquities of the County of Leicester, 4 vols. (London, 1795-1811), 3 (1810):xvi.

<sup>21</sup> The manuscript of this intended version fell into the hands of W. Chetwynd, a Staffordshire antiquary, and was utilized by John Nichols in his own history of Leicestershire.

<sup>22</sup> Camden, Britannia, 1610 ed., 568; Erdeswicke, Staffordshire, 1820 ed., 523; Sir William Dugdale, The Antiquities of Warwickshire (London, 1656), 711. Also see McKisack, Medieval History, 148-149.

<sup>23</sup> Oxford, Bodleian, English Letters MSS, 44, 53, 62, 76.

<sup>24</sup> Kendrick, British Antiquity, 167.

<sup>25</sup> W. G. Hoskins and H. P. R. Finburg, Devonshire Studies (London, 1952), 334.

<sup>26</sup> Tristram Risdon, The Chorographical Description or Survey of the County of Devon (London, 1811).

<sup>27</sup> William Chapple, A Review of Part of Risdon's "Survey of Devon" (Exeter, 1785), 3-4.

<sup>28</sup> Ibid., 5.      <sup>29</sup> Risdon, Devon, 2.

<sup>30</sup> Ibid., 4; also see W. G. Hoskins, New Survey of England: Devon (London, 1954), 148.

<sup>31</sup> Ibid., v, 8.      <sup>32</sup> Ibid., 7.

<sup>33</sup> Edward Cotton, "Of a considerable Load-stone digged out of the Ground in Devonshire," Philosophical Transactions 2 (1667):423-424.

<sup>34</sup> Risdon, Devon, 11-12.      <sup>35</sup> Chapple, A Review, 35.

<sup>36</sup> Risdon, Devon, 14.

<sup>37</sup> Ibid., 237. At one point (page 201), Risdon quotes Michael Drayton's verses on Plymouth in Drayton's Polyolbion (London, 1612).

<sup>38</sup> Much of the information contained in Devon is also found in a separate manuscript (London, BL, Additional MS, 36748, written circa 1633) which is attributed to Risdon. Also see London, BL, Additional MS, 33420, fol. 156, which concerns an eighteenth-century imperfect copy of Risdon's major work.

<sup>39</sup> James Dallas and Henry G. Porter, eds., The "Note-Book" of Tristram Risdon (London, 1897).

<sup>40</sup> Ibid., xvi.      <sup>41</sup> Risdon, Devon, 29.

<sup>42</sup> John Prince, Danmonii Orientales illustres; or, The Worthies of Devon (Exeter, 1701), quoted in Sir John William De La Pole, ed., Collections toward a Description of the County of Devon (London, 1791), x.

<sup>43</sup> This letter is contained in London, BL, Harleian MS, 1195, fol. 37, and is quoted by De La Pole, Collections, iv.

<sup>44</sup>The 1616 volume was published in part by Sir Thomas Phillips as Sir William Pole's Copies of, and Extracts from Old Evidences (Mill Hill, 1840?).

<sup>45</sup>Pole, Collections, 121. <sup>46</sup>Ibid., 109-111.

<sup>47</sup>Thomas Westcote, A View of Devonshire in 1630, eds. George Oliver and Pitman Jones (Exeter, 1845).

<sup>48</sup>Quoted in Risdon, Devon, xvi.

<sup>49</sup>Westcote, Devonshire, iv.

<sup>50</sup>Ibid. <sup>51</sup>Ibid., xvi. <sup>52</sup>Ibid., 34. <sup>53</sup>Ibid., 44.

<sup>54</sup>Ibid., 43-44. <sup>55</sup>Ibid., 68. <sup>56</sup>Ibid., 67.

<sup>57</sup>Ibid., 93. <sup>58</sup>Ibid., 251. <sup>59</sup>Ibid., 98, 348.

<sup>60</sup>Ibid., 95.

<sup>61</sup>Sir Henry Spelman left behind, at his death in 1641, an unfinished manuscript of a county chorography, the "Icenia: sive Norfolciae Descriptio Topographica." It is the only one written in Latin, and is primarily concerned with land ownership. However, Spelman also discusses etymologies, topography, and certain Roman antiquities.

Spelman's major antiquarian production was the Archaeologus (London, 1626). This work is an historical dictionary of legal and ecclesiastical terminology, remarkable for its historiographical significance. Spelman was familiar with all avenues of antiquarian research, not excluding chorography, and he once referred to John Speed as "this our Ortelius" (quoted by Taylor, Stuart Geography, 49).

<sup>62</sup> Thomas Gerard, A Survey of Dorsetshire (London, 1732), "The Method Observed in this Survey of Dorset"; Dorsetshire was published under Gerard's pseudonym "John Coker of Mapowder, Dorset."

<sup>63</sup> The similarity between the two works is discussed by John Batten, "Who Wrote Coker's Survey of Dorsetshire?," Somerset and Dorset Notes and Queries 5 (1890):97-102.

<sup>64</sup> Thomas Gerard, The Particular Description of the County of Somerset, ed. E. H. Bates (London, 1900), xxii.

<sup>65</sup> Gerard (John Coker), Dorsetshire, 35.

<sup>66</sup> Gerard, Somerset, 12. <sup>67</sup> Ibid., xxii.

<sup>68</sup> For example, Gerard quotes a portion of Camden's description of Winburne, in Dorsetshire, 112.

<sup>69</sup> John Weever, Ancient Funerall Monuments (London, 1631), preface.

<sup>70</sup> He was one of the petitioners to the queen for the formation of an academy to house rare books and manuscripts; see McKisack, Medieval History, 145, 169-170, and J. Hunter, "An Account of the Scheme for Erecting a Royal Academy in England in the Reign of King James I," Archaeologia 32 (1847):132-149.

<sup>71</sup> McKisack, Medieval History, 147.

<sup>72</sup> Sir John Doddridge, The History of the Ancient and Moderne Estate of the Principality of Wales, Dutchy of Cornwall, and Earledom of Chester (London, 1630), 77-78.

<sup>73</sup> Ibid., 28. <sup>74</sup> Ibid., 92.

## CHAPTER VI

### THE WANING OF CHOROGRAPHY

The study of geography is both profitable and delightful; but the writers thereof, though some of them exact enough in setting down Longitudes and Latitudes, yet in these other relations of Manners, Religion, Government and such like, accounted Geographical, have for the most part miss'd their proportions. Some too brief and deficient satisfy not; others too voluminous and impertinent cloy and weary out the Reader, while they tell long Stories of absurd Superstitions, Ceremonies, quaint Habits, and other petty Circumstances little to the purpose. Where-by that which is useful, and only worth observation, in such a wood of words, is either over stept, or soon forgotten; which perhaps brought into the mind some men more learned and judicious, who had not the leisure or purpose to write an entire Geography, yet at least to assay Something in the description of one or two Countries, which might be as a Pattern or example to render others more cautious hereafter, who intended the whole work. . . .<sup>1</sup>

In these words John Milton advocated a new model for the study of geography in general, but undoubtedly he would have found this pronouncement equally applicable to a narrower branch of geographical study, namely chorography. Although chorographies such as Robert Thoroton's Antiquities of Nottinghamshire (1677) continued to be published in the second half of the century, and attempted to carry on the general Elizabethan tradition with little change, their number and their importance to the field of regional study as a whole, with one or two exceptions, had considerably diminished. This change was due primarily to the impetus

which experimental science had given to regional study in the second half of the seventeenth century, when the aim of regional writers became one of studying "Nature" rather than "Books." But even before the inductive method came into prominence and "collecting" became the rage with the rise of the Royal Society, the road leading in that direction had already been laid by the near-total demise of chorography as a serious intellectual endeavour. Therefore, the opportunity for erudite thinkers to undertake a new type of description of their native regions--one rising like a phoenix out of the ashes of the old--had as its base the unsettled state of chorography in the 1640s, a time when there was no longer a Society of Antiquaries in existence to provide a formal tie amongst antiquarian writers, and a period which saw the temporary emasculation of the universities and the other scholastic institutions as effective centres of antiquarian research. So it is not entirely surprising that chorographic writing, as a distinct body of literature, soon ground to a halt.

As was demonstrated, the progenitive powers of the early chorographies, such as those by Lambarde and Camden, resulted in the development of the topographical-historical treatment of the various parts of Britain, first concentrating on describing the physical and human landscape and later on reporting the evidence of inscriptions and arms in local churches and manor houses. But this evolutionary

process did not necessarily end with genealogy and heraldry. Other topics soon found their space in these works, so that by the late 1640s the variations on the originals might seem endless to the casual observer. Not only was more attention focused on the urban town unit, but now topography-history-genealogy gave way considerably to works reminiscent of the more descriptive travel narratives. These devoted more space to the other aspects of community life, such as religious affairs or, during the period of incessant civil turmoil, to military campaigns. Civil war by itself proved to be the major catalyst responsible for the changes that took place in chorographic literature, as the accompanying havoc and destruction placed many insurmountable obstacles to the antiquarian researches of regional writers. This caused them to shift their locus of interest to topics which could still be readily investigated. In the 1640s studies based on the county unit temporarily disappeared, largely the result of the difficulties posed by the civil war on the collection of material based on first hand observation and inspection of the countryside. In fact, during the decade, only two or three books that were even vaguely chorographic in nature were produced, and these proved to be of insignificant value to the field as a whole.

Description of a chorographic nature is found in the work of Peter Heylyn (1600-1662). Heylyn, son of an Oxfordshire country gentleman, was educated at Oxford where

he was later to become a lecturer on cosmography. Today he is best remembered as a scholarly clergyman of Royalist principles, the man who chronicled current events in the Mercurius Aulicus and who acted as an historian of the civil war and biographer of Archbishop Laud. His fame also rests on the Microcosmus (1621), a book based on his lecture notes on cosmography, which was later enlarged as the Cosmography.<sup>2</sup>

Heylyn was one of the first Englishmen to absorb fully the principles of Jean Bodin's geographical approach to history, and was therefore conscious of the mutual importance of the two disciplines: "as Geographie without Historie hath life and motion but at randome, and unstable; So Historie without Geographie like a dead carkasse hath neither life nor motion at all."<sup>3</sup> He took the entire world as his subject. Microcosmus is described by the author as a chorography of the whole world, a rather liberal use of the term. It contains hundreds of geographical and historical facts, a multitude of maps, charts, chronologies, lists of kings, bishops, and so on, for every country including India and China. Among his favourite authorities we find, for England, Camden and Speed. On the origin of the Britons, Heylyn follows Camden, establishing the Gauls as the first founders.<sup>4</sup> But the Microcosmus tends to fall more into the category of a general geography, or rather cosmography. Heylyn regarded geography as essential for the understanding

of the Bible as it elucidates the journeys of the Patriarchs, Prophets, Apostles, and Evangelists, and those of Christ Himself. We are interested more, however, in one of his works which was published much later, after Heylyn was allowed to establish his residence at Lacy's Court, Abingdon, following the troubles of the civil war period.

Before the war Heylyn had acted as a chaplain to the Earl of Danby, Governor of Guernsey and Jersey.<sup>5</sup> He had time to compile notes of one of his journeys to these islands, which he later fashioned into the form of a quasi-chorographic description. He appended this to his A Full Relation of Two Journeys (published in 1656), a presentation of the "Fruits, if not the Follies also, of my younger Daies. . . ."<sup>6</sup> A sizeable portion of this description (Book Six of Two Journeys) focuses on the religious history of the Channel Islands. Heylyn, at times, somehow manages to wander off onto many topics that are only very vaguely related to the affairs of the islands, e.g., the state of religion in Geneva before and during Calvin and Beza. At one point the narrative is broken up by a display of doctrinally-inspired invective in the form of an elegiac poem directed against the religious policies of the Marian administration.<sup>7</sup> Religion in the islands was still in a state of flux, and it was natural that Heylyn, as a clergyman, was moved to illuminate this aspect of the local scene. This cleavage into two distinct parts, a section on

religion and a survey loosely organized along topographical lines, takes some life from the chorographic form but in general makes monotony inescapable. The topography, at least, was based on personal observation. Heylyn, as he tells it, intended to "do something in the honour of the Islands, by committing to memory their Antiquities, by reporting to posterity their Arts of Government, by representing, as in a Tablet, the choycest of their beauties. . . ."<sup>8</sup>

Heylyn's survey examines some of the conventional topics that one expects to find in prose chorographies; the situation, commodities, population, and the political and ecclesiastical administration. But there are differences. First, the author was not a permanent resident of the region and therefore the element of close familiarity with the local scene is lacking. And second, the topographical detail encountered in this work is almost incidental to the connecting narrative. At times the work takes the form of a travelogue as Heylyn skips from one island to the next. Occasionally, however, we are tempted with meaty topographical pieces such as the one of "Gurnzey," whose principal honour and glory is:

. . . the large capaciousnesse of the harbour, and the flourishing beauty of the Castle . . . situate it is upon a little islet just opposite unto Pierport or the Town of St. Peter, on the Sea; to which, and to the peere there is a good assurance, and takes up the whole circuit of their islet whereupon it standeth. At the first it was built upon the higher part of the ground

only, broad at the one end, and at the other, and bending in the fashion of an horne, whence it had the name of Cotnet . . . it was improved to that majesty and beauty that now it hath, excellently fortified according to the moderne art of war. . . . Add to this, that it is continually environed with the Sea, unless sometimes at a dead low water, whereby there is so little possibility of making any approaches neer unto it.

Heylyn boasted of the safety of the harbour and, like Westcote, of the English fleet, the "greatest Navy that ever sailed upon the Ocean." The account of this journey and the Microcosmus both cover a range of chorographic topics, but in no sense are these two studies exhaustive in their treatment of the same. In Two Journeys especially, the arrangement of the material in the form of a travel journal, except for the sections on religious affairs, differs from the "standard" chorographic survey in its resemblance to a travelogue.

One more example may serve to illustrate the types of descriptive studies being issued during the 1640s. William Lithgow (1582-1645?), a Scotsman, based The Present Surveigh of London (1643) on observations made by him during a trip to London in the spring of 1643. Despite its title, this short study of approximately twenty pages can make little claim to be, strictly speaking, a chorography. And yet it is not a mere travel account, even though the author was an adventurer-extraordinaire, a seasoned world traveller. Son of a Lanark merchant, and claiming kinship with the famous Montrose, he began his life of wandering

after he ran afoul of the brothers of a "Mrs. Lockhart," a woman whom he was apparently courting. His many journeys took him throughout Europe and to such exotic domains as Troy, the Holy Land, Egypt, and Ethiopia, until in 1643 he sailed from Prestonpans for London.

Lithgow's Surveigh is a valuable piece for historians of social and military affairs. The seeming mutability of worldly affairs--so piquantly expressed forty years earlier by John Norden--was brought into sharp focus by the upheavals of the decade, and proved to be quite real for our author. Before reaching his destination Lithgow noticed the lack of shipping which made the sea "resemble a wildernesse" and the devasted shore the "comfortlesse sight of a desolate land. . . ." <sup>10</sup> He compared the deplorable situation of England to that of Germany, site of the Thirty Years War, and commented on the ever-changing affairs of this world which "made Solon tell . . . [Croesus] that man should never reckon on the felicity of this life, because there might be a mutability of fortune ere death." <sup>11</sup> No doubt Lithgow's attitude was reinforced by the tumultuous experience of his own personal escapades.

The bulk of the book concentrates on a survey of London and its suburbs. The condition of the people under the duress of civil war conditions is vividly depicted. We learn that the population has greatly increased over the course of the past forty years; that money is said to be

hard to come by because of the decay of the trades and trading. Those who have money "Keep it close, for common employments are lately metamorphosed in flying colours. . . ." Despite these economic hardships, the people still delighted in public shows and "frivole ostentations," and enjoyed an abundance of various commodities, "wanting nothing except peace."<sup>12</sup> This general desire for peace is apparently based as much on the wish to alleviate the heavy tax burden as on any other single factor. The Thames, according to Lithgow, is full of merchant shipping even if the coastal waters of the nation are not. One of the few specific hardships mentioned--outside of the tax burden--is the scarcity of "tyne" (i.e., Newcastle upon Tyne) coal. Lithgow's Presbyterian outlook, meanwhile, is disclosed in his regret that the "superstitious" holy days were not yet abolished, and that the service book was still in use.<sup>13</sup> In his invective he sees the entire civil war in simple terms, i.e., solely as a conflagration which is about to consume Catholicism.

A considerable part of the survey of the London region involves an account of the fortifications of the city, those designed and intended to repulse Cavalier incursions. Lithgow relates how he perambulated the city three days before his departure, noting the location and characteristics of the many forts, redoubts, bulwarks, and

other defences. These are graphically displayed in his Surveigh:

. . . I presently rancountred with North Hampton Fort, consisting of two divided quadrangled bulwarks, and each of them garnished with Foure Demiculiverins of brasse; the interveining distance fortified, the two former bodies are pallosaded, double ditched, and the middle division whereof, barrocaded with stakes a yard high, and each of them hooked with three counterthwarting pikes of war. . . .<sup>14</sup>

The Surveigh concludes with a discussion of the "chiefest conflicts and accidents" which occurred while Lithgow was in England. These involve military actions such as the taking of Reading by Essex, and the victories of Hopton over the Earle of Stamford and those of Fairfax over Goring. Presumably Lithgow had heard or read of these while in London.

In several ways, the Surveigh is distinct from the earlier chorographies; in its arrangement (characterized by a lack of separate divisions or sections), short length, overall content, and in the absence of documentary and literary source material. It was, however, as far as one can tell, never intended as a true chorography. One only has to look at Stow's survey of the same city Lithgow wrote about to appreciate the difference between the Surveigh and conventional chorography. Similarly, the only other works produced in the 1640s which can lay any claim to being at least partly chorographic in nature represent a compendium of diverse topographical and antiquarian material, with no

clear focus.<sup>15</sup> It is unfortunate that the large majority of these writers would not, or else could not, take advantage of a series of advances in what modern methodologists would call the "ancillary" disciplines that had been taking place in the seventeenth century.<sup>16</sup> Great advances, even beyond those of earlier days, were being made in sigillography and in numismatics; philological aids in the form of grammars and dictionaries were developed; library catalogues gradually appeared in print; and more systematic indices and guides to archives were slowly compiled. Furthermore, the increased study of old documents greatly improved accuracy in the interpretation of ancient texts.

The earliest regional writer to take full advantage of these developments was Sir William Dugdale (1605-1686). In doing so Dugdale attempted, in the 1650s, to single-handedly revive the tradition of chorographic writing and to restore it to its former importance and glory. And in this, because of the stupendous level of scholarship he exhibited in his work, he almost succeeded.

In its focus on history and antiquities, Dugdale's The Antiquities of Warwickshire falls into the chorographic tradition. However, as Douglas points out, while Dugdale bears comparison with the antiquaries of the earlier generation:

. . . the neatness and method of his work enabled him to present the results of his research in a form vastly superior to that of any previous history of a similar

nature. For this reason later investigations have found the work as satisfying as did Dugdale's contemporaries. . . . Gough gave it as his considered opinion that Dugdale must 'Stand at the head of all our County histories.'<sup>17</sup>

There are, then, two sides to the Warwickshire. This work did, in fact, establish new standards of accuracy and method in the documentary study of many fields of learning. Dugdale, along with other English researchers such as Hickes, Gale, and Rymer, was instrumental in encouraging the systematic and critical presentation of source material through the use of original documentary evidence, putting considerably less emphasis than did most of the earlier antiquaries on the mere copying of inscriptions or charters.<sup>18</sup> Dugdale's own reliance on informal public opinion in the county of which he wrote exceeded that of any of his predecessors. In its fullness, and for the above reasons, Warkwickshire therefore went beyond anything that had hitherto appeared, "remarkable for its accuracy and its constant references to original authorities."<sup>19</sup> And yet, as Kendrick notes, "the fogs of medieval antiquarian thought" were still lingering on, if only "rapidly thinning wisps and patches."<sup>20</sup> Natural history--the element so crucial to nearly all the influential regional studies which followed--did not even so much as overlap the antiquarian topography in Dugdale's book. In this respect Dugdale did not herald the interest in natural phenomena which became so popular later in the seventeenth century. Furthermore,

there are few indications of modern archaeological or scientific investigation in Warwickshire. Dugdale had commented on stone axe heads ("weapons used by the Britons before the art of making arms of brass or iron was known").<sup>21</sup> He also took notice of various tumuli and barrows; but for the most part his sources were literary.<sup>22</sup> Personal observation of the landscape and the detailed evaluation of individual antiquities seemed to be almost ancillary activities when compared to his use of other sources.

Whereas, rather surprising, Warwickshire has never been closely examined in its entirety, there is plenty of information on the life of its author.<sup>23</sup> Born at Shustoke in Warwickshire of a family of yeoman background, Dugdale exhibits a career pattern similar to that of many of his scholarly contemporaries. This is true even though he never attended university; after studying at the Free School at Coventry (1615-20), Dugdale studied law at home under his father's tutelage. (His father, John Dugdale, enjoyed a prolonged residence at St. John's College, Oxford, as a Bursar and Steward). William Dugdale married early, at the age of seventeen, in order to please his father who was by then old and infirm. Shortly afterwards he bought Blyth Hall near Coleshill, Warwickshire, and settled into the comfortable life of a country gentleman.<sup>24</sup> Under his father's tutelage Dugdale was encouraged to investigate,

like most country gentlemen, the history of his estate and the pedigree of his family. Instruction in works such as Sir Thomas Littleton's Tenures in Englysshe (1525?) whetted his appetite for heraldry and genealogy, and for antiquarian research in general. In this respect Dugdale typifies the subtle change which was taking place in the motive which drew men to the study of antiquities. In the sixteenth century it was above all a zeal to voice the praises of Tudor England and to portray the wealth of the land. However, under the shadow of the English Civil War, as Douglas points out, the titles to their estates interested men more; and so questions of origin became of immediate concern.<sup>25</sup>

Dugdale struck up friendships outside the Midland circle with which he is now closely associated, and came to personally befriend many of the leading scholars of his day. It was in 1630 that he was taken to see Sir Christopher Hatton ("a person highly affected to antiquities") in his lodgings near Temple Bar, who welcomed him "with all expressions of kindness, with readiness to further him in his studyes."<sup>26</sup> Both men took delight in their friendship and Hatton was able to use his wide influence to obtain for Dugdale, in 1638, an appointment as Pursuivant Extraordinary with the title of Blanch Lyon. The following year Dugdale became Rouge Croix Pursuivant in the Herald's College, where he lived for the next several years while engaged in



GULIELMUS DUGDALE  
Aetatis. 50. A. MDCLVI.

Wm. Hollar delin. et sculps.

Fig. 9. Sir William Dugdale, Esq.

antiquarian pursuits. After Strafford's execution Hatton foresaw civil unrest ahead, and so he encouraged Dugdale to undertake a remarkable project. Dugdale, accompanied by William Sedgwick, an heraldic painter, proceeded to ride round the country in 1641 (starting with London and then from shire to shire), copying the inscriptions in the religious houses and drawing the various monuments and coats of arms, "to the end that the memory of them, in case of that ruine then imminent, might be preserved for future and better times."<sup>27</sup>

The "fanatique rage of the late times" did indeed, as John Aubrey was to observe later, destroy many an old monument.<sup>28</sup> But as a member of the College of Heralds Dugdale was in a better position, once the civil war came, for antiquarian observation. An ardent Royalist, he travelled round England with royal warrants from Charles I demanding the submission of garrisons. Being stationed at Oxford also enabled him to examine original material at the Bodleian and other libraries, whereas most of the other scholars--including Aubrey--retired from that town upon the outbreak of conflict.<sup>29</sup> Dugdale's war-time experiences and his ultra-conservatism inspired him later to publish A Short View of the Late Troubles in England (1681). Unfortunately, as Royce MacGillivray states, in this study Dugdale was unable to grasp

. . . the complexity of personality, of historical processes, and of the machinery of society . . . he ruthlessly systematizes the events of the war to accord with his black-and-white picture of a guiltless king struggling in vain against a band of evil politico-religious conspirators.<sup>30</sup>

Nevertheless, Dugdale's antiquarian skills were already being finely-honed. Aside from the education he received from his father, his first introduction to the study of history and antiquity was through the influence of a kinsman, Samuel Roper, a barrister of Lincoln's Inn. In time Dugdale fell into a pleasant circle of scholarly friends, beginning with William Burton, author of the Description of Leicester Shire, and Sir Simon Archer of Tamworth, who had collected materials on the early history of Warwickshire. It was after Dugdale went to London in 1635 that he made the acquaintance of Sir Henry Spelman, Roger Dodsworth, and several other eminent researchers. Spelman prevailed upon Dugdale to join Dodsworth, a Yorkshire antiquary, in the latter's study of the foundation of the monasteries. This research came to fruition as the Monasticon Anglicanum, the work on which Dugdale's fame today is largely based. It contains histories of the abbeys as depicted in their charters, names of the successive abbots and their deeds, descriptions of the buildings, and inventories of their farms and granges with lists of the properties seized during the Reformation; thereby:

It made known for the first time a whole range of documents whose true significance had hitherto been

unappreciated, and by so doing it illustrated almost every phase of English social and economic history in the Middle Ages. . . . The Monasticon taught English scholars the importance of charters for history, and it published these in such numbers that a comparative study of them became for the first time possible.<sup>31</sup>

Later writers charged Dugdale with plagiarism for apparently appropriating Dodsworth's collections without acknowledgement, and for publishing the Monasticon (by the third edition) under his own name only. The Monasticon was in fact a cooperative effort on the part of both men with copious assistance from various other scholars, and Douglas--while admitting that the work was primarily Dodsworth's--expressed his doubt that Dodsworth ever would have succeeded in publishing it himself (Dodsworth died before it was quite ready for the printer).<sup>32</sup>

Of more concern to the present study is The Antiquities of Warwickshire, which also owed much to other scholars. In discussing William Burton we have already seen how he was one of the first men to envisage a survey of this county.<sup>33</sup> Burton's collections for Warwickshire were added to those of Sir Simon Archer, who "being desirous to preserve the honour of their Families by some . . . worke as Mr. Burton had done by those in Leicestershire," in turn communicated these to Dugdale, hoping that Dugdale might make use of them towards a study of this county.<sup>34</sup> Archer (1581-1662), in fact, maintained a steady correspondence with Dugdale.<sup>35</sup> Being a relatively well-off Warwickshire

gentleman, Archer, like his correspondent, was motivated by the practical desire to work out his family pedigree and to trace the history of his own estates. Warwickshire might early on have been intended as his own work. In any case, he collected a great number of original documents, mostly deeds and charters, which he eventually handed over to Dugdale. It is worth noting that both men knew Thomas Habington, the chorographer of Worcestershire, and that after Habington's death Archer urged Dugdale to persuade Habington's son to agree to the publication of the survey of that county.<sup>36</sup>

Burton's acquaintance with Dugdale involved, naturally, the exchange of antiquarian information between them. For example, Burton informed Dugdale of Erdeswicke's unpublished survey of Staffordshire.<sup>37</sup> Likewise, in 1636 Burton appealed, through Dugdale, for Archer to undertake a survey of Warwickshire; and so the project was at last firmly launched.<sup>38</sup> Originally, then, Dugdale was to have been the "junior" partner in this endeavour but eventually came to assume full responsibility for it. This was probably because of Archer's ebbing enthusiasm and because Archer's financial resources were beginning to dwindle as the project got underway. Dugdale, on the other hand, was able to obtain financial backing, though only on the proviso that he assume the sole responsibility of authorship. This arrangement was presumably satisfactory to all the parties

involved. Archer's direct involvement for the most part was relegated to one of contributing material on the arms and monuments in the churches.<sup>39</sup> Much of Warwickshire was completed by the time civil war broke out, but Dugdale kept working on it, even if at a slower pace once the hostilities began, until the time of its publication in 1656. Archer and Hatton both rendered Dugdale an invaluable service by procuring for him access to the muniment rooms of their friends; almost half of the number of persons mentioned in the footnotes to Warwickshire had some connection with Archer. Also, Dugdale regularly wrote to Archer in the hope of obtaining local information, such as that concerning genealogy, from him. In most cases the cooperation of the landowners was readily obtained. Many of the newly-established families may have considered that even a fleeting notice of their pedigree or property in Dugdale's book substantiated their claim to gentility. There were times, however, when such assistance for whatever reason was withheld; on one occasion Archer found it necessary to inform Dugdale that "Men doe promise me much, but I finde them slowe of p'formance."<sup>40</sup> Hatton went further than introducing Dugdale to his own powerful friends and associates; he backed Dugdale's enterprise financially and obtained for him access to the public records then housed in the Tower of London, and to Sir Robert Cotton's famous collection. Dugdale's gratitude to his patron for his

generous assistance was put into public view by the dedication of Warwickshire to Hatton, in which he is described as a "principal Mecoenas of learning."<sup>41</sup>

Warwickshire, despite its great length and numerous evidences of prodigious scholarship, basically conforms to the earlier tradition of chorographic writing in its admixture of topography and genealogy. In typical Camdenian fashion Dugdale divides the shire into its hundreds and proceeds along the rivers and streams to describe each parish in turn:

For the order and methods of this present work, I have followed the Rivers (as the most sure and lasting marks) where they lye proper for my course; and sometimes have taken my aim from those great and well-known Roman ways, viz. Watlingstreet and Fosse; which thwarting each other upon the borders of this Countre, extend themselves many miles, through it, or as a boundrie thereto. And whereas the Hundreds are so few, and the Rivers, with their branches very many, I have taken each Hundred by it self . . . discoursing in order of the Towns, as they lye adjacent thereto, or neer those petty streams which run into it; beginning always with that wherein the Church is seated, and then proceeding with the severall small Hamlets or places of note, whether depopulated or otherwise, contained within the same Parish; setting forth a succession of their antient possessors; by which the rise, growth, continuance, and decay of many Families, with their most memorable actions, are manifested.<sup>42</sup>

Dugdale, far from anticipating the natural histories which formed the next generation of regional studies, compares his work to that of the previous generation of chorographers, specifically referring to Lambarde, Erdeswicke, Carew, Burton, and others by name.<sup>43</sup> His "survey," in fact, was an attempt at "illustrating" the

antiquities of the county in much the same way that the ancient geographers desired to "paint" their regions. Thus, Dugdale viewed his diligent searches "into the vast Treasures of publique Records" as a continuation of the kind of investigation done by Polybius, Suetonius, Livy, Tacitus, and others "who made speciall Use of the publique Records of Rome."<sup>44</sup>

Dugdale begins his study by commanding the gentry of Warwickshire for promoting his "publique work," i.e., by granting him access to their archival repositories. At the same time he recognizes the great honour they deserve for the pious respect they pay their ancestors by "representing to the world a view of their Tombes, and in some sort preserving those Monuments from that fate which Time, if not contingent Mischief, might expose them to."<sup>45</sup> Next, in the way of a general introduction to the whole study, Dugdale (relying on Domesday Book) informs the reader of the names of the hundreds and towns which existed in the county at the time of the Norman settlement. Although unable to find a definitive answer in the ancient accounts, he nevertheless speculates as to whether or not these names had already existed by the time of King Alfred. He concludes that there probably had occurred some alteration over the course of time; there were ten hundreds at the time of the Normans, but only four when Dugdale wrote (and none of these four are found by the author to retain any of the old names). These

four were: Knightlow, Kineton, Barlichway, and Hemlingford. They are represented on the general map of the shire which appears near the front of the book, and later appear separately in individual maps.

Now we arrive at the main portion of the book. Commencing with Knightlow Hundred Dugdale gives an account of the former possessors of each place, the ecclesiastical institutions, old manners and customs, wakes, and general local information. Sometimes his account stretches back to Anglo-Saxon times but, as Dugdale states, the spoliation wrought by the wars of petty Saxon monarchs, and the lack of sufficient "Light of Stories" for guidance, left him with few "memorials" to guide him in his investigation of pre-Norman times.<sup>46</sup> Furthermore, in most cases he is unable to adequately give the history of each parish, pleading his "own disabilitie to perform it. . . ."<sup>47</sup>

Throughout Warwickshire the topography takes a back seat to the genealogies, to the blazons of arms, and to the epitaphs and inscriptions. In this, Dugdale follows the pattern established by Burton and Reyce, though on a greatly enlarged scale. The following example, the opening paragraph outlining the city of Warwick, contains about as much topographical information as one is liable to find for any one entry in the text:

The first place of note that presents it self to my view, on the banks of this fair stream River Avon, is Warwick, standing on the north side thereof; which, as

it is, and hath been the chiefest town of these parts, and whereof the whole County, upon the first division of this Realm into Shires took its name, so may it justly glory in its situation beyond any other, standing upon a rocky ascent from every side, and in a dry and fertile soil, having the benefit of rich and pleasant Meadows on the South part, with the lofty Groves, and spacious thickets of the Woodland on the North; wherefore, were there nothing else to argue its great antiquity, these commodities, which so surround it, might sufficiently satisfy us, that the Britons<sup>48</sup> made an early plantation here to participate of them.

Usually there is considerably less topographical description than this for a particular place. Even Reyce's Breviary contains a more comprehensive treatment of the physical elements, i.e., the climate, soil, and the commodities.

Social, economic, and linguistic historians have been able to reap the fruits of Dugdale's researches on at least two related fronts. First, in many instances Dugdale identifies settlements which no longer exist and, where appropriate, he comments on the nature of the depopulation which has occurred between "ancient times" and his own day.<sup>49</sup> Second, Dugdale went further than almost every scholar before him in attempting to discover the derivation of place-names. In etymologizing the names of towns and places, however, he was not, in his own words ". . . over-bold, because most of them had their originall denomination from the Britons, or Saxons; and that Time hath much varied the antient name. . . ."<sup>50</sup> Yet he did have the advantage of being able to utilize the results of other recent studies in this field, including those of Spelman and Somner.<sup>51</sup>

A closer look at one small section of Warwickshire, that describing Coventry, will clarify our conception of the kinds of topics which interested Dugdale. In the narrative he arrives at Coventry by "following the stream of Shirburn" until it leads him there. The town is represented as still a city of eminent note, even if lacking the glory and riches which it had previously possessed.<sup>52</sup> After this brief general introduction, Dugdale delves into the origin of the name and foundation of the town. Again, however, the "Light of Stories" is too diffuse to accurately guide him through those olden times. Once more he is forced into sheer speculation, wondering whether the term "coven" was occasioned by some covenant of religious persons (since there is evidence of an ancient nunnery here); or whether, as others think, the word derives from a local brook, whose true name might have been "Cune." Unable to find concrete evidence, Dugdale decides not to argue either one of these positions. Dugdale's detailed examination of the foundations, endowments, and histories of religious houses and chantries forms the core of the section on Coventry. His interest in these topics was stimulated no doubt by his Anglican background and by his collaboration with Dodsworth in researching and writing the Monasticon, a treasury of this type of information. The account of Coventry continues with an historical examination of the events leading to the destruction of the local nunnery by Canute in 1016, and of

the subsequent establishment of a monastery by the Earl of Mercia near the same site. Dugdale finds the record of these events in various sources, including the Rous collection in Cotton's library.<sup>53</sup> From this point on the narrative remains centred on the religious houses, and on the genealogies of prominent families throughout the town's history. Occasionally other bits of historical information are interspersed in the text, e.g.: "But in K.H.4. time, I find nothing memorable, excepting that the K. held a Parliament here in ann. 1404. 6 of his reign. . . ."<sup>54</sup> There is the odd mention of this or that fair, or of the state of the town's trade.<sup>55</sup> Architectural features and conspicuous landmarks are also found worthy of observation. A prominent cross, built in 1541-44, is noticed as "one of the chief things wherein this City most glories; which for workmanship and beauty is inferiour to none in England. . . ."<sup>56</sup> Finally, several pages are devoted to an account of the various chantries, replete with notes on the monumental inscriptions found on the walls and elsewhere.

The text of Warwickshire is devoid of superfluous verbiage and is meticulously documented by references to Dugdale's authorities. Naturally, in such a massive compilation, errors were not totally avoidable; more than one contemporary reviewer was able to point out certain slips in the critical discernment of the evidences.<sup>57</sup> But usually Dugdale's work allowed little justification for such

criticism. His scrupulousness is revealed in some sound valedictory advice he gave to Archer, warning his associate of the pitfalls of depending on "any mens collections or transcripts, without comparinge them with the originalls," since even the most judicious may have "here and there gleaned accordanige to their fancye, and left behinde them as materiall things as they have taken. . . ."<sup>58</sup> It is therefore principally Dugdale's mastery of technique which was to influence future regional writers. Warwickshire, published before the new approach to regional study was expounded by members of the Royal Society, did not deal with the natural history of a place. That Dugdale was at least interested in pursuits such as those which we would today refer to as "archaeological," however, is undeniable. For example, he aroused Wood's interest in "a notable discoverie" that he found at Tamworth, Warwickshire, "by the digging for Marle to manure Mr. Archer's land." For a depth of more than four feet, width of eighteen feet, and length of fifty-five yards, the earth here was found to be very black. It was believed by some that at this site at least two thousand bodies were buried in a mass grave. Finding "a speare head of Iron, much eaten with rust; and . . . diverse potshards, some of large magnitude," Dugdale was ready to believe, like Camden, that Tamworth had been a royal village under the Mercians.<sup>59</sup> Dugdale was also interested in "a faire [Roman] stone taken up about two miles west from

Newcastle upon Tine" by a Mr. Shafto, a lawyer of Gray's Inne, who wished to present this object to Oxford University.<sup>60</sup> But, overall, Dugdale's amateur interest in such antiquities was of the same nature as that of Camden; both had little interest in purely archaeological evidence, which therefore plays very little part in their published work.

Warwickshire won immediate praise from Dugdale's fellow antiquaries. William Somner thought it "so copious and well stored for the matter; so curious and well contrived for the forme . . . (in one word) a Masterpiece."<sup>61</sup> As for Wood, it turned his life into "a perfect Elysium" by satisfying his "insatiable desire for knowledg." Dugdale went on to become at the Restoration Norroy Herald and later, in May, 1677, Garter King-at-Arms. During this period he published several other scholarly works, including The History of St. Paul's Cathedral (1658), The History of Imbanking and Drayning of Diverse Fens (1662), Origines Juridiciales (1666), and The Baronage of England (1675-76).

The Antiquities of Warwickshire, with its concentration on genealogy and heraldry, epitomized a brief return to the direction chorography had taken with the studies of Reyce and Burton. Whether or not this work represents the culmination, the crowning glory of chorographic study, is, however, debatable. Certainly it

established a new standard of scholarship. But Camdenian purists might be justified in bemoaning the increasingly pronounced eclipse of the topographic element by the genealogic one. From "painting the landscape"--the original goal of chorography, they would argue--the emphasis had degenerated to one of illustrating the pedigrees and histories of individual families, with topography a secondary concern only. Perhaps it only was fitting then, and even necessary, that regional study eventually came to experience a renaissance after 1660. The emphasis was to shift once again to the examination of the physical properties of a region, but through the utilization of a new, scientifically-based approach. To be precise, Dugdale's book did not mark the end of chorography. Works of a chorographic nature continued to be researched, written, and published well beyond the seventeenth century. But, as mentioned earlier, in the second half of the seventeenth century these greatly diminished in number and importance. It may have been that potential chorographers were intimidated by the level of scholarship displayed in Warwickshire, and so decided it was better not to write at all. There is also the possibility that there was less need to do so, because over the years fewer and fewer regions were being left "unpainted" in the chorographic mode. But the major reason for this situation was simply the growing influence of the Royal Society and of its members, who

propagated a new philosophy of learning and a new way of examining the countryside.

Three other chorographies, inspired by Dugdale's example, were published in quick succession in the late 1650s, none of which attained the learning displayed by many of their predecessors. Kent received an inordinate amount of attention; two works dealing with that county were issued in the space of one year, 1659. Richard Kilburne (1605-78), a Kentish Justice of the Peace and steward of the manors of Brede and Bodiam, Sussex, published A Topographie; or Survey of the County of Kent, which contained some valuable information about Kilburne's own parish, Hawkhurst, but was primarily a meagre gazetteer.<sup>62</sup> It contained little description of natural phenomena, but did not lack the usual lists or tables naming the political divisions of the county.

John Philipot (1589?-1645), Somerset Herald (1624-1645), made considerable collections for a county history of Kent, and the Villare Cantianum: or Kent Surveyed and Illustrated is generally credited to him.<sup>63</sup> This work is closer to Dugdale's Warwickshire than that executed by Kilburne; Philipot also acknowledges his debt to Somner's work.<sup>64</sup> The aim of Philipot's study is to:

. . . take the County of Kent under Survey or Prospect, and represent to the publicke view, those several Antiquities which in my search I found to be wrapt up either in common Records, or shut up in the private Muniments, Escriptis, and Registers of particular

Families; from whom I have endevour'd to pluck off the veil that they might for the future stand as an Alphabet to point out those Families that are yet in being, that are totally exinguish'd or that lye entomb'd in other Names and Extractions, which by Marriage have swallowed up the Heir generall. . . .<sup>65</sup>

Obviously, due to the fact that a work such as this could still be published, there is no indication here that natural history had yet made a substantive impression on regional study. Neither is there much description of a topographical nature. Kent Surveyed, on the other hand, has been noticed for its merit as an early history of property.<sup>66</sup> The account of the holding of manors still played a conspicuous role here, as is evident in the following passage:

Hawking in the Hundred of Folk stone contains two little Mannors within its Verge, which must not be passed over in Silence. The first is Bilchester, which belonged to the Knights Templers, but upon their suppression, in the second year<sup>67</sup> of Edward the Second, it escheated to the crown. . . .

The same year Philipot's work was published, Edward Leigh (1602-1671) came out with England Described, a chorographic work which covered the entire country. It was an entirely derivative work of small historical value, anticipating the sorry state into which chorography was to fall. Much of Leigh's information was derived from the earlier chorographies, including Camden's Britannia: "I have made much use of Camden, and if I could have added to his Chorography, some new and memorable things of each county, which he had not observed, I should have thought it might be usefull. . . ."<sup>68</sup>

As the initial, brief revival of enthusiasm for chorography--generated by the publication of Warwickshire--gradually subsided, the dearth of chorographic writing becomes increasingly pronounced as the seventeenth century wears on, especially when compared to the growing number of natural histories that were by now being produced. Only one man, Robert Thoroton (1623-1678), was to follow closely in Dugdale's footsteps. Although Thoroton's major antiquarian production, The Antiquities of Nottinghamshire, is often elevated to the same lofty pedestal granted Dugdale's Warwickshire, and the two works are very similar in many respects, the simple fact remains that Thoroton never quite attained the same level of scholarship or originality. Due to the amazing stylistic and topical similarity between the two works, there is no need to go into graphic detail of the contents of Thoroton's study.<sup>69</sup> Thoroton's biographer, John T. Godfrey, puts the matter in a nutshell in the following statement:

This work [Nottinghamshire] is almost entirely genealogical and heraldic in character, and its compilation appears to have occupied Thoroton about ten years [1667-77]. He did not, apparently, visit every village and hamlet in the county, but derived much of his information from a mass of valuable manuscript placed at his disposal by his numerous friends among the county gentry.<sup>70</sup>

More may be said of Thoroton's personal life. Descended from a family who had long held considerable property in the county of which he wrote, Thoroton became

Sizar of Christ's College, Cambridge, in 1639, graduating B.A. (1643) and M.A. (1646). Having received from the university a license to practice medicine he combined his practice with the occupations of a country gentleman. Unable "to keep people alive for any time" he consequently chose "to practice upon the dead" by ascertaining, through the contemplation of deceased Nottinghamshire worthies, what was to be gained from "the shadow of their names."<sup>71</sup> Although a Royalist, Thoroton took little part in the civil war. After the Restoration he became a Justice of the Peace and a Commissioner of Royal Aid and Subsidy.

Nottinghamshire was dedicated to Gilbert Sheldon, Archbishop of Canterbury, and to Dugdale, both personal friends of his. In the Dedication Thoroton tells us how, during the course of Dugdale's visitation of the county, he and Dugdale were staying at the home of a mutual friend (a Mr. Gervase Pigot) when Dugdale suggested that Thoroton attempt a description of the region. At the same time Dugdale offered his assistance towards the proposed venture.<sup>72</sup> In his compilation, as Godfrey indicates, Thoroton utilized as his sources family registers, estate conveyances, epitaphs, inscriptions on old monuments, old deeds and rolls, etc. Being a man of great wealth, he was able to employ paid assistants in his work. Although Thoroton spared no effort to assign large portions of his book to the documentation of his own family history, the

book itself was basically composed along traditional chorographic lines, describing the county on a hundred by hundred basis.<sup>73</sup>

Of the other figures who circulated in the antiquarian world of the Restoration, only one came even close to producing a work similar to those by Dugdale and Thoroton. This distinction goes to that indefatigable virtuoso Anthony à Wood (1632-1695).<sup>74</sup> It is to Wood, in fact, that we are indebted for much of what we know of the inner life of seventeenth-century Oxford, and it is for his two studies of the town's university and of its leading figures (the Historia et Antiquitates Universitatis Oxoniensis and the Athenae Oxonienses, respectively) that he is best known.

Born in Oxford, Wood was educated partly at New College School (1641-44), and partly at Lord William's School, Thame (1644-46). At both places his studies were disrupted by the tumult of the civil war. One year after the Royalists had left Oxford Wood matriculated at Merton, where he proved to be a dull pupil, taking five years to obtain his B.A. (July, 1652). Having proceeded to an M.A. in 1655 Wood, once out of school, maintained himself by living off the finances provided under his father's will while displaying a gentleman's aversion to any "useful" occupation, content to study English history and heraldry at the Bodleian Library. It was at about this time that

Dugdale's Warwickshire reached Oxford and, in June of 1656, the Bodleian copy was laid open in the great east window for strangers and readers to inspect.<sup>75</sup> Wood could not help but be affected by the reading of this scholarly study; from this point on, he developed an intense interest in antiquarian research, recording his feelings in his diary (writing in the third person):

This [Warwickshire] being accounted the best book of its kind that hitherto was made extent, my pen cannot enough describe how A. Wood's tender affections and insatiable desire of knowledge were ravish'd and melted downe by the reading of that book.<sup>76</sup>

Dugdale's work served to render ineffaceable the impressions made earlier on Wood by two other antiquarian productions, Burton's Leicester Shire and John Guillim's A Display of Heraldrie (first edition, 1610).<sup>77</sup>

Wood at last had found his vocation. He proposed to copy in the local colleges and churches of Oxford those inscriptions located on tombstones, memorial tablets, and windows; in other words, he aspired to attempt a work depicting his own county, one which would resemble that of Dugdale. But as his researches progressed, and after he had perused the manuscript collections of John Leland, which he had come across in the summer of 1657, the scope of his intended undertaking was enlarged. Instead of merely preserving a record of extant monuments he was now determined to compile a comprehensive work which would include an historical survey of the town of Oxford. This

would include the histories of the universities and colleges, the monasteries, the parish churches, as well as the biographical records contained in his Athenae and Fasti. In the pursuit of these objectives he made large collections from the books and manuscripts in the Bodleian and obtained access, in 1659, to the registers of St. Frideswyde's Priory and Osney and Einsham abbeys, preserved in the treasury of Christ Church; and, in 1660, access to the archives of the university itself. To enable him to continue his studies undisturbed he had a chimney built in one of the rooms in the family home opposite Merton and, in effect, he became a sort of scholarly hermit there for the rest of his life, except for his occasional travels in the pursuit of material.

Of particular interest to us is Wood's work on the antiquities of the city itself, which took a separate form from that of the university. It appears that his overall scheme proved to be too cumbersome, so that Wood divided his study into several parts: the city treatise, including the ecclesiastical antiquities; the annals of the university, and the antiquities of the colleges. While it seems that he worked on all parts of his study to some degree simultaneously, a considerable portion of the city treatise was written between 1661 and 1663, and the university portion between 1664 and 1669 (when this latter portion became available to the publisher).<sup>78</sup> The city portion went

unpublished during the author's lifetime, since Wood kept on adding material to it throughout the years, in Aubrey's manner.<sup>79</sup>

In pursuing his researches in the university archives Wood utilized the papers of another diligent Oxford author and antiquary, Brian Twyne, and this has raised the question of just how much of the Oxford treatise is his own original work and how much can be directly attributed to Twyne.<sup>80</sup> In 1610 Twyne had published the earliest history of Oxford, the Antiquitatis Acadamiae Oxonienses Apologia, and produced several other antiquarian works. But most of his published material represents but a small fraction of the total results of his labourers. He bequeathed many volumes to the university archives, upon which he relied heavily. However, in the majority of instances Wood cited his sources, including Twyne. Furthermore, there is no question that Wood's information was complemented by personal investigation of the localities. Andrew Clark, Wood's biographer, has had to admit that for the purpose of his edition of the city treatise: "it is unnecessary to enquire how much of these facts are due to the researches of Twyne and how much to the independent investigations of Wood," and went on to state that "it is enough to note that the substance of the work is based on a solid substratum of carefully collected and methodised documentary evidence."<sup>81</sup>

The style and arrangement of the city treatise is quite cumbrous and confusing. The emphasis on religious houses and the examination of the city ward by ward and suburb by suburb bears a close resemblance to the arrangement of William Somner's Canterbury (1640), which was also based on the town unit, than to Dugdale's study.

Wood begins with the founding of the town, speaking "therof according as authours and privat scripts direct me, and not according to fancy and conjecture."<sup>82</sup> He identifies the various legends regarding its founding, and examines the opinions of John Rous and Stow on this matter, finally settling with reluctance on the legend which attributes the founding to Mempric, King of the Britons. This is followed, in true chorographic style, by short chapters on the etymology, situation, and the state of the town before and after the Norman invasion (according to Domesday Book); and then by the division of Oxford into its wards and suburbs. The prominent buildings of each ward are given due notice in the text, usually focusing on their exact location, origin, and past and present ownership, function, and condition. In South-East Ward, for example, we find Sampson Hall:

Sampson Hall, sometimes belonging to John Feteplace in the raigne of Henry III toward the later end. From him it came to one Henry Swyndon, a burgess of Oxon. Then to Adam de Swyndon his son. . . . It was situated about the north west corner of the quadrangle of Christ Church called now Peckwater's Inne and was standing A.D. 1517, the garden therof then yielding 6s 8d per annum as a rentall that year belonging to S. Frideswyde's Priory manifesteth.<sup>83</sup>

These chapters are followed by ones which contain slightly more topographic detail. The ancient city wall, gates, and trenches are described, as is the castle. "Having now done with . . . [the castle?] I must proceede to speak of the suburbs. Of which I shall say but little, because . . . everything will be alphabetically and by themselves treated of viz. churches, religious houses, bridges, lanes, etc."<sup>84</sup> Occasionally Wood notices features that lie outside the town, such as meadows and watercourses.

In general, Wood's regional work exhibits a rather dry streak. What information he could not locate in the literary sources, or obtain from on the spot observation, Wood could in all probability obtain from his friends Aubrey and Dugdale. He first met Dugdale when in the summer of 1667 he travelled to London to conduct research at Cotton's library at Westminster. Their friendship was to last until the time of Dugdale's death in 1686.<sup>85</sup> Dugdale, like Burton before him, acted as a patriarchal figure for the younger antiquaries, whom he inspired by his example. They tended to abide by his dictum that an author who fails to use public records in his work would produce "but a lame peice of historical worke . . . of wch I totally despaire."<sup>86</sup> But he also supplemented such words of wisdom with more concrete assistance, and this is nowhere more true than in his dealing with Wood. Eager to see the younger man successful

in "that worthy work" (the Historia), he was able to provide answers to many of Wood's queries.<sup>87</sup> He even tried to improve Wood's financial lot, as is apparent from his efforts to obtain for him a place in the Office of the Herald, although this plan never did reach fruition.<sup>88</sup> And so, on many an occasion the two men worked side by side in the Tower and took their midday meal together.

Often Wood stressed his indebtedness to John Aubrey, especially for his aid in digging up biographical information, as when he stated: "I profess unless you help me to some searches of them [biographies] I shall be at a great loss."<sup>89</sup> Conversely, their association, according to Hunter, "was crucial in turning Aubrey's enthusiasm for miscellaneous preservation in the direction of biography, which previously had been a relatively minor interest."<sup>90</sup> That their partnership, however, was a rocky one has been demonstrated by Anthony Powell.<sup>91</sup> Nevertheless, the value of this association is undeniable.<sup>92</sup>

Basically outside this group, in thought as well as in person, was Aylett Sammes (1636-1679?), who had come from an Essex home to a Fellowship of Christ's College, Cambridge. Sammes's major production, the Britannia Antiqua Illustrata: Or, the Antiquities of Ancient Britain, Derived from the Phoenicians (1676), is not, strictly speaking, a regional study; however, it is at least of curiosity value here, primarily for two reasons. First, it provides a prime

example of the fact that--so far as prehistoric antiquities were concerned--not all authors were able to emancipate themselves from legend, nor from the fantastic substitutes for history, derived mainly from literary sources, and therefore they wrote basically untouched by scientifically-based activities and influences. Second, Sammes's book was widely read by the regional writers, who reacted in one way or another to it. The majority, it seems, tended to scoff at its major premise and at the absence of empirical investigation behind it.<sup>93</sup>

The Britannia Antiqua, as the full title suggests, is an attempt to prove that a good deal of the ancient customs, names, and edifices were derived from the Phoenicians during a prehistoric period when they were engaged in commerce with the British. Sammes, despite Douglas's observation that he "argued through five hundred erudite pages for the Phoenician origin of the English race," in fact did not believe that any of the Britons were directly descended from Phoenicians, but rather that this middle eastern people had been the carriers of culture to Britain.<sup>94</sup> Sammes tells us of how his original inclination to undertake such a study was inspired by that ancient sage Livy, who in the Preface to his Roman Decades decried the lack of study of the origins of nations. Sammes, when applying this consideration to his own native land, discovered that unfortunately most authors began their

histories with the Norman invasion.<sup>95</sup> He was also inspired by the work of the French scholar Bochartus, who treated the Phoenician voyages throughout the world and who traced many French customs to the Phoenicians in his Geographia Sacra (1646-51). Sammes is more of a philologist than an antiquary, and most of his arguments throughout the book are etymological:

. . . when I consider what Leland writeth of the British or Welch language, namely, that the main body of it consisteth of Hebrew and Greek words, I began to collect with my self, how it should come to pass that the Ancient Britons could have any Commerce with the Jews, who where never known to send out Colonies, and of all People in the World were most fond of their own Country; Certainly I concluded, this could proceed from no other root but the Commerce of the Phoenicians with this Nation, who using the same Language with the Children of Israel in Canaan, even in the Primitive times were great Traders and skilful Mariners, and sent out their Colonies through the World; and of this Mr. Cambden himself toucheth on, where he gives<sup>96</sup> the derivation of the British Caer Eske, now Exeter.

Although at first glance, then, Sammes supported his theory of the Phoenician settlement primarily on linguistic evidence, it is quite likely that he was indebted to the kind of contemporary rational theology that sought to demonstrate that English Christianity was part of an unbroken line connecting it with the Mosaic tradition, i.e., that the Phoenicians--thought to be the heirs to the philosophy of Moses--had taught the Britons the ways of Moses through the implementation of their culture in Britain.<sup>97</sup>

Other than this, the Britannia Antiqua has little intrinsic value. It was, however, a pioneer work on comparative mythology, containing frequent references to Bede and to other early writers. There are also several valuable reproductions of ancient documents, including the "Laws of King Ina," and an interesting map of Europe showing the progress of the Phoenician voyages (between pages 16 and 17). Sammes finds that the name "Britannia" is derived from the Phoenician term for "country of tin and lead." These resources were transported by the Phoenicians from the west coast of Cornwall and from the Scilly Islands; it is the search for such metals which brought these peoples to Britain in the first place.<sup>98</sup> Also of interest is Sammes's dismissal of the Brute legend as fabulous on the one hand, but his apparent inability on the other to totally discard it--in this supposedly enlightened day and age.<sup>99</sup> He devoted a chapter to Stonehenge, quoting Camden and Inigo Jones in considerable detail, and arrived at the conclusion that this monument was of Phoenician origin.<sup>100</sup>

That the "New Learning" (as scientifically-based study was now being called) did not yet completely consolidate its hold on the virtuosi of the early 1670s is reflected in the fact that no less a scholar than Henry Oldenburg could be impressed by Sammes's erudition. Oldenburg, in a review of Sammes's book published in the Philosophical Transactions, praises the author's great

industry and care in collecting "out of the best Authors that could give light herein," and for displaying his information "in a better Method than hitherto. . ."<sup>101</sup> A small number of other men also continued working in the chorographic tradition, making collections as did Sir Peter Leycester ". . . of the Chiefest Things Observable out [of] our most Ancient and Authentique Historians," often using Dugdale's genealogical material extensively, adding what supplementary material they could find themselves.<sup>102</sup> Only about a half dozen such works were produced in the second half of the seventeenth century, and the majority of these were short, meagre compilations, especially when compared to the chorographies of the first half of the century.<sup>103</sup> They generally centred on accounts of civil administration, battles, benefactions, various topographical features, etc., or sometimes consisted of little more than a series of lists which denoted the past administrative officials of a town or region.<sup>104</sup> In any case, the authors of these works were generally uncritical in their use of authorities, content to rely on "Antiquity carried on by Tradition."<sup>105</sup> They attempted--sometimes consciously--to sustain the tradition of chorographic writing, as did Dugdale, with most of them seemingly oblivious to the innovative scientific developments taken place around them. Thus, through neglect of the latest developments in regional work, chorography was soon relegated to second place as a viable vehicle for

describing one's region. It is not surprising that few, if any, of these latter-day seventeenth-century chorographers had any close affiliations with the newly-formed scientific societies.

There are rare instances when two or three such men actually exhibited in their work a minute interest in natural history, but even so it is generally lost in the mish-mash of chorographic detail. For example, Silas Taylor, alias Domvile (1624-1678), made extensive chorographic collections for Harwich, in which the second of the five "Heads" in his book focused on "Natural Accidents and Productions." Here he briefly examined natural features such as prominent hills, cliffs, springs, and so on. In no sense, however, did Taylor approach the type of detailed, analytical observation characteristic of the researches of Robert Plot or even John Aubrey. Nevertheless, certain portions of his work on natural phenomena were eventually inserted into Edmund Gibson's 1695 edition of Camden's Britannia, in the addition to "Essex." The first complete version of Harwich was published by Samuel Dale (physician, apothecary, virtuoso, and contributor to the Philosophical Transactions of the Royal Society) long after Taylor's death.<sup>106</sup> Commenting on Taylor's involvement with natural history, Dale stated that: "altho' he hath here [Harwich] a large Field for Natural History, yet he is so very short,

that in many parts thereof there is little more than the  
Names of the things."<sup>107</sup>

Philip Falle (1656-1742), in his account of Jersey, published in 1694, duly noted the intrinsic properties of the soil, and provided a discourse on the "great Deformity of this island . . . [i.e., the] almost incredible Multitude of Toads that swarm in it."<sup>108</sup> However, in his discussion of fish, Falle made it clear that if he had intended a natural history he would have enlarged greatly on the subject.<sup>109</sup> Nathaniel Johnston (1627-1705), meanwhile, attempted to combine chorography with natural history to a degree previously unknown. Johnston was a physician by profession, proceeding to an M.D. from King's College, Cambridge, in 1656, and was admitted a Fellow of the College of Physicians in 1687. He had begun to practise medicine at Pontefract but, like Robert Thoroton, came to focus his attention on the physical properties of the county in which he resided. Over the course of his career he became personally acquainted with many of the prominent virtuosi of the day, a group which included Lister, Thoresby, Dugdale and Wood.<sup>110</sup> Eventually Johnston totally fell out of practising medicine and moved to London in 1686, where he became a High Tory pamphleteer. Although Johnston had a strong interest in the natural history of a locale, still, the main value of his endeavours lies in his recording of documentary evidence and in his genealogic studies; in this

he obviously followed Dugdale. Once he moved to London, becoming therefore more restricted in his fieldwork, Johnston was forced to rely on Dodsworth's material and on Dugdale's cooperation in gaining him access to copies of heraldric visitations and allied collections.<sup>111</sup> Like these other two antiquaries, Johnston also depended heavily on the various chronicle sources which were then circulating in print, e.g., Twysden's Decem Scriptores, and the Flores Historiarum (German edition of 1601).<sup>112</sup>

The type of scientific antiquarianism seen in later studies, however, did come within his sphere of scholarly investigation. He took a lively interest in numismatics, for example, and thus corresponded with Elias Ashmole on the subject of coins.<sup>113</sup> Neither did other rarities escape his attention; Edmund Gibson mentions that Johnston was the proud owner of the disembodied arm of a body found petrified in a turf pit near Thorne.<sup>114</sup> Johnston realized the value of obtaining information by means of queries, and so sometime before, or during, 1683 he circulated these among the Yorkshire gentry. Earlier, about 1670, he already had prepared a series of questions to guide his brother Henry on his journey through the county.<sup>115</sup> These were concerned more with the present state and owners of a particular holding than with its history. Each copy contained twenty-four queries in total, seeking information on such diverse matters as the general situation and boundaries of

each parish; the names and situations of settlements within each parish; remarkable topographical features; types of soil; old coins, armour, and "bones of men or beasts," etc.<sup>116</sup> The queries were not only directed to the gentry but also to the clergy of each parish. The ultimate goal was the publication of a work which "may equal, at least, what hath hitherto been published of any other county in the Kingdom."<sup>117</sup> Evidently, however, Johnston's compilation did not proceed as smoothly as it might have, for we hear of him complaining about the matter to Ralph Thoresby shortly after the queries had been issued:

I am going as fast forward as my occasions will permit it, but such is the neglect or supineness of people, that I have not yet had one return made to me of the several hundreds of enquiries I have dispersed. Some few have sent me in some deeds, so that I must be forced to print a number more of enquiries without proposals, and a letter with them to desire gentlemen to make some expedition. When I am ready for the press, I must send out proposals. I want money to get the draughts, etc. taken, as I desire they shall be done.<sup>118</sup>

Johnston's impoverishment, occasioned primarily by his great undertaking, meant continual postponement of bringing his regional work to print and eventually forced him to live privately with the Earl of Peterborough, who maintained him through the difficult times. But Johnston also seemed unable to keep up the concentrated level of effort required to prepare his notes for the press; it is as if he had been overwhelmed by the immensity of his collections. Nevertheless, by 1686 he thought that he had

at least one volume ready, that detailing Pontefract and the surrounding area. This work examined the institutions of the borough, its monastic houses, and drawing upon the diary of a former soldier, Nathan Drake, it outlined the part played by the borough in the English Civil War. It seems strange therefore that in the final analysis this volume amounts to little more than the history of one prominent family, that of Lacey. There are also complete or draft volumes of about twenty other parishes or villages, as well as the volumes of notes gathered from the Dodsworth manuscripts for the Wapentake of Strafford and Tickhill. The fullest accounts are of Thribergh, Doncaster, Hatfield, and Conisborough. Johnston's methodology involved the arrangement of his material from Dodsworth in classified groups. After the basic sorting, Johnston compiled a summary of his sources for a particular parish in chronological order. The total history was then written up from the draft. Quite often the account of a parish revolves around the story of its most prominent families, in effect overriding the material of a topographical or natural historical nature. The limitations of Johnston's utilization of this method are obvious: the parish is not discussed as a community, and therefore not as an economic or social unit. Proposals for printing Johnston's notes were published in 1722 without result by his grandson, Henry Johnston.<sup>119</sup> Many of these were eventually calendered by

the Historical Manuscript Commission.<sup>120</sup> Even a cursory glance is enough to indicate the great number and the diversity of these, and enables one to sympathize with the hardships involved in Johnston's self-appointed task of making some kind of sense out of "chaos."<sup>121</sup>

Johnston at least attempted to incorporate some natural history into his work, and with this aim in mind he had travelled widely throughout Yorkshire in search of information. On the other hand, there was still the odd die-hard who wrote entirely from manuscripts and other literary records, and who might never have ventured beyond the libraries or muniment rooms. But his number had decreased drastically. On the whole, nearly all of the chorographies produced in the second half of the seventeenth century failed to attain the standards set by the majority of pre-1640 chorographers, let alone the new high standards being set by the natural historians. Therefore, they commanded little intellectual respect and, with the exception of Dugdale's work, a small market. And so, looking back to the period after 1640, and especially that after 1656, one can see the dramatic decline in the popularity of chorography.

## NOTES: CHAPTER VI

<sup>1</sup>John Milton, quoted by Baker, "Academic Geography," 20-21.

<sup>2</sup>Heylyn's works are discussed in Taylor, Stuart Geography, 138-143.

<sup>3</sup>Heylyn, Microcosmus, 11. The influence of Bodin's theories on English scholars is discussed in Hodgen, Early Anthropology, 282-290, and in Leonard F. Dean, "Bodin's Methodus in England Before 1625," Studies in Philology 39 (1942):160-166.

<sup>4</sup>Heylyn, Microcosmus, 241, 252.

<sup>5</sup>It was Danby who commended Heylyn to Laud.

<sup>6</sup>Peter Heylyn, A Full Relation of Two Journeys: The One into Main-Land of France, The Other, Into some of the Adjacent Islands (London, 1656), "Dedication to the Marquesse of Dorchester."

<sup>7</sup>Ibid., 325. <sup>8</sup>Ibid., 280. <sup>9</sup>Ibid., 298-299.

<sup>10</sup>William Lithgow, The Present Surveigh of London (London, 1643), A2.

<sup>11</sup>Ibid. <sup>12</sup>Ibid., A4. <sup>13</sup>Ibid., Bl. <sup>14</sup>Ibid., B4.

<sup>15</sup>Among the few minor works produced in the 1640s which have not been discussed in the text there is William Somner's The Antiquities of Canterbury (London, 1640), compiled from old manuscripts, ledgers, and other records

found in the archives of Canterbury Cathedral. This book focused on the ecclesiastical government of the city of Canterbury and on the histories of its religious establishments. Amongst the other works one finds Richard Butcher's The Survey and Antiquities of the Towne of Stamford in the County of Lincolne (London, 1646) and William Grey's Chorographia: Or, A Survey of Newcastle Upon Tine (London, 1649). By the time this work was issued the Brute legend had been totally discarded, as evidenced by Grey's opening remark that the Trojan origin of the ancient Britons is fabulous. He augmented this claim with the assertion that the Brute fable is not revealed by any of the Greek or Latin authors, or by any "Monuments in this island." Therefore he settled on a descent originating with the Gauls. The next section dealt with the first Romans in Britain and their conquest of the north. Grey identified the ancient northern Roman stations and walls but did not describe these in any detail.

<sup>16</sup> See J. G. A. Pocock, The Ancient Constitution and the Feudal Law (Cambridge, 1957).

<sup>17</sup> David C. Douglas, "William Dugdale: The 'Grand Plagiary,'" History 20 (1935):203-204.

<sup>18</sup> See Stuart Piggott, "Archaeological Draughtmanship: Principles and Practice," Antiquity 39 (1965):171.

<sup>19</sup> Walters, English Antiquities, 11.

<sup>20</sup> Kendrick, British Antiquity, 167.

<sup>21</sup> Dugdale, Warwickshire, 778.

<sup>22</sup> Ibid., 3-5; also, William Hamper, ed., The Life (written by himself and continued to his death), Diary, and Correspondence of Sir William Dugdale (London, 1827), 462.

<sup>23</sup> Aside from Hamper's edition of the Life, Dugdale is the subject of a chapter in Douglas, English Scholars. Much of the information we have concerning Dugdale's life and work was originally preserved for posterity by his contemporaries, such as Anthony à Wood, men who were considerably impressed and influenced by Dugdale's scholarship and learning.

<sup>24</sup> Hamper, Dugdale, 5, 7-8.

<sup>25</sup> Douglas, English Scholars, 30-31.

<sup>26</sup> Hamper, Dugdale, 9. <sup>27</sup> Ibid., 13.

<sup>28</sup> Oxford, Bodleian, Aubrey MS, 3, fol. 81.

<sup>29</sup> Dugdale's estate was sequestered by the Parliamentarians, requiring Charles to give him a warrant for 13s. 4d. a day; of this he claims never to have received anything. While in Oxford Dugdale lived, apparently, by conducting--in his capacity of Herald--the funerals of prominent Cavaliers who were killed in action.

<sup>30</sup> Royce MacGillivray, Restoration Historians and the English Civil War (The Hague, 1974), 56.

<sup>31</sup> Douglas, English Scholars, 36.

<sup>32</sup> Ibid., 37-38. <sup>33</sup> See p. 207 of the present study.

<sup>34</sup> Hamper, Dugdale, 9, quoted in Douglas, English Scholars, 31.

<sup>35</sup> Some of the originals and drafts of their letters are found in Oxford, Bodleian, English Letters MS, Bl, collected by William Hamper.

<sup>36</sup> Hamper, Dugdale, 273.

<sup>37</sup> This information is derived from a copy of a letter, Sir William Dugdale to Sir Simon Archer, 3 June 1626, Oxford, Bodleian, Additional MS, 25864, fols. 200-201.

<sup>38</sup> Hamper, Dugdale, 154-156.

<sup>39</sup> Ibid., 185-186.      <sup>40</sup> Ibid., 249.

<sup>41</sup> Dugdale, Warwickshire, "Epistle Dedicatore."

<sup>42</sup> Ibid., preface.

<sup>43</sup> Ibid., "To my Honoured Friends the Gentry of Warwick-Shire."

<sup>44</sup> Ibid., preface. It is here that Dugdale states: "As for the Work itself, it is an Illustration of the Antiquities with which my native country Warwickshire hath been honoured." The book is opulently, almost gaudily, adorned with the arms and pictures of many prominent persons.

<sup>45</sup> Ibid., "To my Honoured Friends the Gentry of Warwick-Shire."

<sup>46</sup> Ibid., preface.      <sup>47</sup> Ibid.      <sup>48</sup> Ibid., 297.

<sup>49</sup> For example, *ibid.*, 35 (in reference to Hyde); 60 (Cest-over); 219 (Radburne). These are all settlements noticed as having suffered a loss in population.

<sup>50</sup> *Ibid.*, preface.

<sup>51</sup> For the entry on Hyde (*ibid.*, 35), for example, Dugdale refers the reader to Sir Henry Spelman's Glossary, "where may be seen the various acceptations thereof; conceiving that in this place it was first imposed, to impress a certain quantity of Land sufficient for one Plough to manage."

<sup>52</sup> Dugdale, Warwickshire, 85.

<sup>53</sup> See English Historical Scholarship, ed. Fox, 129-132, "A Note on the Copies of the Rous Roll."

<sup>54</sup> Dugdale, Warwickshire, 92. <sup>55</sup> *Ibid.*, 96.

<sup>56</sup> *Ibid.*, 95.

<sup>57</sup> Roger Twysden for example, a student of constitutional law and a friend of Dugdale's, did exactly this, by questioning the authenticity of certain documents used by Dugdale; Hamper, Dugdale, 335.

<sup>58</sup> *Ibid.*, 182-183. A work by J. Ives, Select papers Chiefly Relating to English Antiquities (London, 1773), contains Dugdale's "Directions for the Search of Records, and Making Use of them, in order to an Historicall Discourse of the Antiquities of Staffordshire." Ives claims that these "Directions" were probably written for the benefit and use of Robert Plot, who was engaged in the collection of

material towards his natural history of that county.

Dugdale, in this work, discusses the various types of source material and their locations. In so doing he sounds much like an experienced tutor, paternalistically educating a green student, e.g.: "Next, the Charter Rolls (of these I can helpe you to a copie of them, and save you the labour at the tower)" (page 37); or, "Then the Patent Rolls, Clause Rolls, Fine Rolls, and all the Foreign Rolls, all these you must look over diligently, backsides as well as foresides" (*ibid.*); Dugdale concludes by referring the reader (presumably Plot) to the example of his own work: "It will be worth while to see my Collections for Warwickshire, as to the method and order which I used therein" (*ibid.*). A valuable discussion of Dugdale's use of evidence is contained in H. A. Cronne, "The Study and Use of Charters by English Scholars in the Seventeenth Century: Sir Henry Spelman and Sir William Dugdale," in English Historical Scholarship, ed. Fox, 88-91.

<sup>59</sup> Oxford, Bodleian, Ballard MS, 14, fol. 6.

<sup>60</sup> Oxford, Bodleian, Wood MS, E41, fol. 75. Stuart Piggott, "Antiquarian Thought in the Sixteenth and Seventeenth Centuries," in English Historical Scholarship, ed. Fox, 110, discusses several other examples of Dugdale's objective interest in field archaeology. It seems that, on the whole, Dugdale's interest in this area became considerably more pronounced after the publication of

Warwickshire, i.e., after the natural historians were beginning to bring to light their own findings on the subject.

<sup>61</sup> Hamper, Dugdale, 309; Clark, Life and Times, 1:209.

<sup>62</sup> Richard Kilburne's A Topographie; or Survey of the County of Kent (London, 1659) is enlarged from his A Brief Survey of the County of Kent (London, 1657). White Kennett, Life of Mr. Somner (Oxford, 1693), 19, excuses Kilburne's sparse treatment of Canterbury on the grounds that "Mr. William Somner had so elaborately, judiciously, and fully wrote of the same, that there was but little left (if anything observable) which he had not set down."

<sup>63</sup> Kent Surveyed was published by and under the name of Philipot's son Thomas, who has been resoundingly criticized for dishonestly attempting to pawn it off as his own production. Kennett, Somner, 37, and others have attributed the work to the elder Philipot; see H. Stanford London, John Philipot, M.P., Somerset Herald, 1624-1645 (Ashford and London, 1948), 48.

<sup>64</sup> Philipot, Kent Surveyed, 93. <sup>65</sup> Ibid., preface.

<sup>66</sup> London, John Philipot, 48.

<sup>67</sup> Philipot, Kent Surveyed, 182.

<sup>68</sup> Edward Leigh, England Described (London, 1657), "To the Candid Reader." Leigh listed the names of the authorities whose books he had perused. These included

Drayton, Burton, King, Norden, Lambarde, Carew, Stow, Somner, and Leland.

<sup>69</sup> Not only do the two books utilize the same types of sources, and therefore examine the same types of topics, but they also exhibit a similar language; and the first editions (at least) of both works are remarkably close in their lay-out, typography, and use of illustrations.

<sup>70</sup> John T. Godfrey, Robert Thoroton, Physician and Antiquary (Nottingham?, 1890), no pagination.

<sup>71</sup> Robert Thoroton, The Antiquities of Nottinghamshire (London, 1677), preface.

<sup>72</sup> It may simply have been an oversight on Thoroton's part, or else a reflection on Dugdale's nature, that Dugdale never received any presentation copy of Nottinghamshire and had to pay a sum of 16s. to 18s. to obtain the book once it was published; see Great Britain, Historical Manuscripts Commission, 12th Report, app., vii.

<sup>73</sup> Nevertheless, John Throsby incorporated Thoroton's study in A History of Nottinghamshire, 3 vols. (London, 1797), with the addition of a large number of facts and illustrations.

<sup>74</sup> Although his true name was simply Anthony Wood, he liked to pedantically style himself à Wood later in life and so, in accordance with his wishes, I have throughout maintained this style when using his given name and surname.

<sup>75</sup> See Hamper, Dugdale, 313, 315.

<sup>76</sup> Clark, Life and Times, 1:209; quoted by Richard Rawlinson, The Life of Mr. Anthony à Wood (London, 1711), 5; also see John Aubrey to Anthony à Wood, Whitsun Eve 1671, Oxford, Bodleian, Wood MS, F39, fol. 133.

<sup>77</sup> Wood tells us how, like Dugdale, he enjoyed reading Burton's book, "being exceedingly delighted with the pformance, he . . . (did) take notes thence and make collections from it, wch he had lying by him. . . ." (Oxford, Bodleian, Tanner MS, 102, "An. Dom. 1653.").

<sup>78</sup> On these dates see Andrew Clark, ed., "Survey of the Antiquities of the City of Oxford," composed in 1661-6, by Anthony Wood, 3 vols. (Oxford, 1889-99), 1(1889):16-19.

<sup>79</sup> Originally deposited in the Ashmolean Museum, the manuscript of the city treatise is now Oxford, Bodleian, Wood MS, F29A. Considerable portions of the original manuscript were haphazardly edited and published by Sir John Peshall, The Antient and Present State of the City of Oxford (London, 1773). Clark's book represents the first full printing, from a careful collation of the original manuscript.

<sup>80</sup> In his article on Wood in the Dictionary of National Biography Andrew Clark says that Wood "merely put into shape Twyne's materials; but he was very conscientious in looking up Twyne's citations in the originals, in the muniment chests of the parishes, the colleges, and the university, as well as in the Bodleian and college

libraries." Elsewhere he states that "Wood's debt to Twyne was greater than he cared fully to admit, amply as he has acknowledged it in his references. . . ." (Clark, City of Oxford, 1:18). Walters, meanwhile, in The English Antiquaries, 25, also claims that Wood's work is not original.

<sup>81</sup> Clark, City of Oxford, 1:30.

<sup>82</sup> Ibid., 1:41. <sup>83</sup> Ibid., 1:171.

<sup>84</sup> Ibid., 1:279. Wood altered this plan when he made an additional draft, and resolved to introduce the churches, streets, etc., in their several places. In the text of his edition Clark follows the arrangement of the manuscript in which the churches, religious houses and bridges are mentioned in their places, but the discourses on them are brought together in the chapters by themselves; see ibid., 1: 279.

<sup>85</sup> When Wood left for London he carried with him a letter of introduction from Dr. Thomas Barlow, Provost of Queen's College, to Dugdale; see Clark, Life and Times, 2(1892):109.

<sup>86</sup> See Oxford, Bodleian, Wood MS, F41, fol. 136.

<sup>87</sup> Ibid., fol. 89. Most of Dugdale's information appeared not in the Historia (because by the time Wood had met Dugdale this work was nearly ready for the printer), but in the Athenae. Dugdale was able to supply, for example, biographical data on Thomas Howard, Duke of Norfolk, Sir

Henry Mildmays, William Burton, the Philipots, and on others.

<sup>88</sup> Oxford, Bodleian, Wood MS, F41, fol. 74.

<sup>89</sup> Anthony à Wood to John Aubrey, n.d. (1673), Oxford, Bodleian, Aubrey MS, 13, fol. 261; quoted in Hunter, John Aubrey, 74.

<sup>90</sup> Ibid., 73.

<sup>91</sup> Powell, Aubrey and His Friends, chap. 7.

<sup>92</sup> Wood and Aubrey both counted Plot within the Oxford circle, as is evidenced by their mutual correspondence. Aubrey's letters to Wood are indicative of this. On one occasion, for example, Aubrey wrote to Wood informing him of his (Aubrey's) desire of obtaining a copy of Plot's queries, requesting Wood to send these to Aubrey's "cosen" Henry Vaughan, who was contemplating the compilation of a natural history of Brecknockshire; John Aubrey to Anthony à Wood, 13 January 1681, Oxford, Bodleian, Wood MS, F39, fol. 351. On another occasion Aubrey acknowledged the receipt of such queries, requesting Wood to "pray thank him [Plot] for his Queres" if he should meet up with "Dr. Plott"; John Aubrey to Anthony à Wood, 25 May 1684, ibid., fol. 372.

<sup>93</sup> On the non-scientific aspect of Sammes's work see Piggott, "Antiquarian Thought," 109-110. Aubrey cited Sammes's book in Oxford, Bodleian, Aubrey MS, TGC24, fol. 102. The contemporary scholars who generally took little stock of Sammes's theories included William Nicolson, who

dubbed Sammes "the most unaccountable and ridiculous Plagiary and Buffon that ever had his name upon the title page of any book what so ever," in The English Historical Library (London, 1736), 26, 39; see Douglas, English Scholars, 58-59.

<sup>94</sup> Ibid., 58. Nicolson sarcastically said of Sammes that he equally understood the Phoenician, British, Gothic, Saxon, and Icelandic (Icelandic) languages, and could have as easily brought the Britons from New Spain, or the Saxons from Madagascar; see Ethel Seaton, Literary Relations of England and Scandinavia in the 17th Century (Oxford, 1935), 209.

<sup>95</sup> Aylett Sammes, Britannia Antiqua Illustrata: or, The Antiquities of Ancient Britain, Derived from the Phoenicians (London, 1676), preface.

<sup>96</sup> Ibid.

<sup>97</sup> The famous Edward Stillingfleet based his Origines Sacra (London, 1662), and his Origines Britannicae (London, 1685) on this kind of rational and historical theology; see Richard H. Popkin, "The Philosophy of Bishop Stillingfleet," Journal of the History of Philosophy 9 (1971):303-320.

<sup>98</sup> Sammes, Britannia Antiqua, 19.

<sup>99</sup> Ibid., preface. <sup>100</sup> Ibid., 397.

<sup>101</sup> Henry Oldenburg, "Britannia Antiqua Illustrata, or, The Antiquities of Ancient Britain, derived from the Phoenicians, etc. The First Volume (none other published).

By Aylett Sammes, of Christ's Colledge in Cambridge; since,  
of the Inner Temple, London, printed by Tho. Roycroft for  
the Author, 1676," Philosophical Transactions 11 (1676):597.

<sup>102</sup> Sir Peter Leycester, Historical Antiquities in two books: the first treating in general of Great Britain and Ireland; the second containing particular remarks concerning Cheshire, and chiefly of Bucklow Hundred (London, 1673), "The Author to the Reader." This book is incorporated in George Ormerod, The History of the County Palatine and City of Chester, 3 vols. (London, 1819), I. I have here used the original 1673 edition.

<sup>103</sup> This group includes: James Wright, The History and Antiquities of the County of Rutlandshire (London, 1684); Samuel Dunstar, Anglia Rediviva; Being a full Description Of all the Shires, Cities, Principal Townes and Rivers, in England (London, 1699); and Sir Henry Chauncey, The Historical Antiquities of Hertfordshire (London, 1700).

<sup>104</sup> Richard Furney, Master of the Crypt School, Gloucestershire, for example, exhibited a voracious appetite for lists; lists of the Gloucester dukes since 1066, of the mayors of Gloucester since 1483, and of the specific dimensions of the local cathedral. Furney's volumes went unpublished; they exist as Oxford, Bodleian, Top. Glouc. MSS, C4, C5.

<sup>105</sup> This was the position, for example, of Abel Wantner, who investigated Gloucestershire. Even though

Wantner practically begged the gentry to subscribe to the publication of this work--promising that the coats of arms of the nobility and gentry would be engraved in copper plates, and that the proposed book would contain a handsome "Graven Frontispiece"--his study went unpublished; his volumes exist as *ibid.*, MS, C3.

<sup>106</sup> Samuel Dale, The History and Antiquities of Harwich and Dovercourt, Topographical, Dynastical and Political. First Collected By Silas Taylor, alias Domville, Gent. (London, 1730). Dale is cited by his reviewer, "G. S. B." in the Dictionary of National Biography as being the author of "the first systematic work of importance" on the subject of pharmacology, the Pharmacologia (London, 1693).

<sup>107</sup> Dale, Harwich, iv. Dale's commentary on Taylor's text gives considerably more information on natural history than does Taylor himself, citing as Dale does the work of Plot, John Morton, and other natural historians.

<sup>108</sup> Philip Falle, An Account of the Island of Jersey (London, 1694), 77. As it turns out, however, Falle was relatively uninterested in the type of empirical experimentation being conducted by the Fellows of the Royal Society, and was therefore unable to discover if the toads were "venemous" or not.

<sup>109</sup> *Ibid.*, 76.

<sup>110</sup> Several of Johnston's letters (1672-76) on scientific subjects, addressed to Lister, survive as Oxford,

Bodleian, Lister MS, 35, fols. 9, 13, 16-18, 36, 39.

Johnston's association with Dugdale is revealed in his letters, which are contained in the volume of visitation papers in the College of Arms. As for Johnston's interest in antiquarian research, Douglas, English Scholars, 259, comments on how, "Following the example of Thomas Browne, the doctors of England turned with a surprising readiness from the ministration of the sick to the problems of historical scholarship," and in this respect he was no different from a good segment of the medical profession.

<sup>111</sup> It was under Dugdale's direction that a copy of Domesday Book for Yorkshire was transcribed for Johnston's use.

<sup>112</sup> See Oxford, Bodleian, Top. York. MS, C15, fol.

64.

<sup>113</sup> See Oxford, Bodleian, Ashmole MS, 1731, fol. 96.

<sup>114</sup> Camden, Britannia, 1695 ed., cols. 725-726.

<sup>115</sup> See Oxford, Bodleian, Top. York. MS, C18, fol.

148.

<sup>116</sup> Nathaniel Johnston, Enquiries for Information towards the Illustrating and Compleating the Antiquities and Natural History of Yorkshire (London?, 1683?).

<sup>117</sup> Ibid., 1.

<sup>118</sup> Joseph Hunter, ed., Letters of Eminent Men; addressed to Ralph Thoresby, F.R.S., 2 vols. (London, 1832), 1:39.

<sup>119</sup>Johnston's collections were made use of by Gibson, at least, in the editing of Camden's Britannia in 1695.

<sup>120</sup>Great Britain, Historical Manuscripts Commission, 6th Report, app., 448-465.

<sup>121</sup>"The items of the volumes of this Collection are so numerous," we read in the Historical Commission's findings, "that it must suffice here to say that they illustrate pretty fully the topography and antiquities of Yorkshire; and contain much regarding Lancashire, and Westmorland" (*ibid.*, 448). It should be noted that the reference here is to the entire collection of F. Bacon Frank, who acquired a large portion of Johnston's material; the bulk of the Frank's collection is, in fact, made up of the Johnston material.

## CHAPTER VII

### NEW DIRECTIONS: REGIONAL STUDY AND SCIENCE

. . . to make faithful Records of all the Works of Nature of Art, which can come within their Reach; that so the present Age, and Posterity, may be able to put a Mark on the Errors, which have stranghtned by long Prescription; to restore the Truths, that have lain neglected; to push on those which are already known, to more various Uses; and to make the way more passable, to what remains unreveal'd. . . . And to accomplish this, they have endeavour'd, to separate the Knowledge of Nature, from the Colours of Rhetorick, the Devices of Fancy, or the delightful Deceit of Fables.<sup>1</sup>

The above aim, as will be demonstrated in this chapter, was to become common to the majority of the regional writers in the second half of the seventeenth century. Whereas the chorographers had written about the physical properties of a place alongside its social, economic, legal or religious history, most scholars eventually were to arrive at the conclusion that the only proper way to describe it was by concentrating on the study of its natural phenomena, almost to the point where little else mattered except perhaps for its curiosity value. Increasingly then, as this century was nearing its end, few men braved the consequences of surveying a region without also intensively examining its natural history. As was shown in the previous chapter, very few of the chorographies produced after 1640 were able to achieve the standards set by their predecessors. Chorography now became a poor

distant cousin to natural history, even though the latter was indebted to its beggared relation for having originally established a tradition of regional study in Britain. Just as the natural histories retained some of the ingredients inherent in the earlier chorographies, so too did the latter manifest certain qualities that one usually associates with works of natural history. Camden, Carew, and other chorographers, for example, took notice of the flora and fauna, plotted geological strata, and so on. The difference lies in part in the degree of attention dispensed to natural phenomena as opposed to that given over to civil history and institutions. Natural histories always emphasized the former while chorographies usually stressed the latter (although in at least one chorography, Carew's Survey of Cornwall, both were roughly mixed).<sup>2</sup> It is worth noting, however, that even in the late seventeenth century knowledge was neither as specialized nor professionalized as one might think, and only gradually were medieval concepts of nature (which were still blended with theological axioms, symbolism and fable) totally overcome. Most scholars could still move with relative ease from one type of intellectual activity to another, thereby justifying our also calling them "virtuosi."

Today the term "natural history" is often used as a synonym for "botany" or for "biology." For the natural historian of the second half of the seventeenth century,

however, the geology of the substrata, the productions of the soil, and the zoology of the locality were all proper objects of enquiry, as were all related natural phenomena. Observation and description of nature were therefore extended to limits beyond those of the chorographer, whose main interest lay in the topography, history or antiquities of a region, or a combination of these. When a chorographer noticed the natural phenomena, his observations were of secondary importance to his main focus and were intended to complement the picture rather than form its centre.

The "Ancients" were the first to record observations of the earth's natural constitution. Aristotle (384-22 B.C.) is often regarded as the "Father of Natural History." He devoted, for example, a portion of his treatise on "Meteorics" to a discussion of earthquakes, and also speculated on matters such as volcanic activity, river systems, and the weather. The Greeks were also the first to grasp the true nature of fossils. Xenophanes (sixth century B.C.), it seems, observed impressions of small fish and marine shells; Pythagoras and Xanthius, meanwhile, are "reported to have accepted the occurrence of these shells as an indication that the mountains were at one time under the sea."<sup>3</sup> Early investigations such as these were well known amongst many men engaged in regional studies.<sup>4</sup> But as the seventeenth century progressed, the ideas of Francis Bacon were beginning to take hold, and so the attitude of men

towards the Ancients was changing. Even Bacon refused to accept their dicta as authoritative and recognized the value of their findings only after these had been tested; ancient scientists, he held, should be regarded as "counsels," not "dictators."<sup>5</sup> But the veneration of the Ancients died a slow death, and this adherence to antiquity still had some effect upon many of the more enlightened minds right up until the end of the century; upon minds of the calibre of John Ray or Robert Hooke, scientists who still supported their discussions of natural history with quotations from Pliny, Strabo, Plato, Aristotle and others. Thus, one also finds that many of the lesser figures did not totally disregard the literary or Classical sources either.

This is not the place to review the influence of Bacon's ideas and writings on his fellow countrymen; it is an area that has been thoroughly investigated.<sup>6</sup> However, it would be worthwhile to discover exactly what he had to say about natural history, since the natural historians were caught up in the Baconian project of making "faithful Records of all the Works of Nature . . . which can come within their reach."<sup>7</sup> Where regional natural histories are concerned, i.e., where the organization of ideas is less advanced and the material much more complex, the basic acquisition of precise information was more beneficial than premature attempts at conceptualization. And therefore Bacon's advocacy of experimentation and the collection of

data had set the stage for future developments. But as Descartes made clear, bare facts are never self-explanatory; they require interpretation. Most of the natural historians, it so happens, were not Cartesians, and so they regarded Descartes's proposed divorce between science and theology as far too extreme.

Bacon recognized two major varieties of history, civil and natural. Civil history included three main divisions--civil, ecclesiastical, and literary--and generally consisted of the inquiry into the affairs of men.<sup>8</sup> Natural history, as the term implies, dealt with the "deeds and works" of nature, and for Bacon it was very broad, covering all the "Phenomena of the Universe."<sup>9</sup> These included cosmography, geography, botany, zoology and physiology. Because under natural history Bacon did not regard the two major varieties as mutually exclusive or totally distinct, future natural historians, regardless of what they publicly may have professed, did not feel obligated to completely avoid discussion of various matters which normally fell into the category of civil history. Bacon, therefore, does separate man and nature, but not in terms of a dichotomy between history and nature; the historical and the human are not placed in opposition to the natural and the non-human. In simplest terms, natural history for Bacon was purely the recording of matters of fact, with little opportunity for hypothesis. But--and it

is not inconceivable that here he may have had chorography in mind--these facts had to be sorted out of the literary quagmire in which bits of information on natural history were to be found: "yet weed it of fables, antiquities, quotations, idle controversies, philology and ornaments . . . and it will shrink into a small compass."<sup>10</sup> In another context, Bacon enlarges upon the importance of natural history:

. . . let such a history be once provided and well set forth, and let there be added to it such auxiliary and light-giving experiments as in the very course of interpretation will present themselves or will have to be found out, and the investigation of nature and of all sciences will be the work of a few years. This, therefore, must be done or the business given up. For in this way, and in this way only, can the foundation of a true and active philosophy be established; and then will men wake as from deep sleep, and at once perceive what a difference there is between the dogmas and figments of the wit and a true and active philosophy, and what is in questions of nature to consult nature herself.<sup>11</sup>

The study of natural history, of course, was not restricted to the regional writers; other virtuosi and scientists applied Bacon's dicta to their own particular researches. Moreover, Bacon's appeal for reliance on experiment, measurement, induction, documentation, and impartiality encouraged all scholars to develop methods free from their own prejudices, and to evaluate their data accurately and dispassionately. Bacon emphasized that the inductive and the quantitative method was critically important because, as he stated, the mind distorted the

impressions of the senses, failing to distinguish between external evidence and its own subjective impulses by mixing "its own nature with the nature of thing."<sup>12</sup> A natural history may have a two-fold use, therefore; it may either serve as a narration of particular occurrences in nature of interest for its own sake, or as "the stuff and material of a solid and lawful Induction." Most members of the Royal Society accepted Bacon's belief that the natural world must be studied because discoveries bear visible fruit. Before Bacon, as John Aubrey put it, "Things were not then studied. My Lord Bacon first led that dance."<sup>13</sup> Therefore, the Royal Society did not inaugurate the study of "things" to the exclusion of "persons and actions," but by emphasizing and intensifying it, established an intellectual climate which made such study respectable and which enabled it to flourish.

The story of the Royal Society, like that of Bacon, has been ably told by others.<sup>14</sup> The Society was founded under the patronage of Charles II. It was in a sense the descendant of a small group of scientists that had been resident at the universities during the Commonwealth, and whose work came into favour with the Restoration. By this time experimental science had the potential to benefit agriculture, navigation and industry, and was therefore beginning to receive popular favour because of its appeal to the practical English mind. Practical methods, in fact,

were favoured by natural historians in their compilation of material. Aubrey, Plot, and other natural historians depended heavily on field study and on printed questionnaires. As members of a scientific society the new generation of regional writers was therefore informed of (and seriously influenced by) the trend toward quantification in natural science. Accurate description and measurement became increasingly important to them in their studies.

Like the short-lived Elizabethan College of Antiquaries, the Royal Society emphasized toleration, and to its first meeting flocked both Cavalier and Roundhead wanting only "to pursue their philosophical interests in congenial company."<sup>15</sup> There are other similarities. Both organizations stressed loyalty to the search for truth and viewed themselves as investigators and researchers, not as authorities. In addition, both societies found it necessary to fend off charges that their respective efforts might somehow damage the universities. Perhaps the major difference between them, as far as regional study is concerned, is best seen in the papers dealing with antiquities which were presented to the societies. As Joan Evans succinctly states, the papers presented to the Royal Society:

. . . are far closer to modern field work than are the essays of the Elizabethan College of Antiquaries, i.e., Society of Antiquaries, for they are concerned with

objects, not documents<sup>16</sup> and attempt their interpretation in the modern spirit.

And, as Stuart Piggott points out, the empirical approach which one associates essentially with the Royal Society "made possible the liberation of archaeological studies from dependence on literary sources, so many of dubious validity, and from any entanglement in the quest for antecedents or the hunt for respectable ancestors."<sup>17</sup>

The new ideas did not take hold overnight. There is an intervening interval of almost half a century between the period Bacon published most of his works and the date Plot issued his Oxfordshire (1677), the book which was most influential in popularizing local natural history. As we shall see, the first regional natural history published in English--Gerard Boate's Irelands Naturall History--was written in 1645 and published in 1652, long before Plot undertook his own study. It would therefore at first glance seem rather surprising that it took so long for the type to become popular. A relatively recent model was there for all to see for almost a decade before the founding of the Royal Society. The truth of the matter is that the 1650s showed few firm signs that the Baconian philosophy was taking hold. We have seen in Dugdale's work the relative unimportance of archaeological investigation, and also the near total disregard for natural history. Dugdale's close friend Sir Thomas Browne, author of the famous Hydriotaphia, or

Urne-Burial (1658), and the equally famous Religio Medici (1642), has often been portrayed by connoisseurs of the "scientific revolution" as a major link between Bacon and the Royal Society or even as the first of the "Moderns."<sup>18</sup> Browne went further than many of his contemporaries in rebelling against the relative unreliability of many past writers upon natural history, especially in the first book of his Pseudodoxia Epidemica (commonly known as Vulgar Errors), first published in 1646.

Evans draws attention to the fact that the engravings which illustrate the Hydriopathia are the first to be published of Anglo-Saxon pits, and that the book itself constitutes "the first English excavation report."<sup>19</sup> However, on the contrary, this particular work exhibits little of the interest of the Royal Society in artefacts in their own right. In the majority of his works, Browne's sources were primarily literary. Thus, for the most part he fits into the climate in which there was still little attempt made to apply the systematic method of inquiry towards the material remains of the past. In his reliance on literary, even on occasion Classical authority, Browne did not go far beyond the work of his contemporaries. And yet, it cannot be denied that he had a stake in establishing the stage for the experimental investigation of the Royal Society. In one short treatise written in response to a query by Dugdale, for example, Browne discusses the origin

of the "artificial" burrows found throughout diverse parts of the country, suggesting that there should be an "ocular exploration" of one of these, i.e., it should be opened up and any remains found there examined and even dated by the presence of "distinguishing substances."<sup>20</sup> So, although Browne may not have been involved in the actual fieldwork himself, it has to be recognized that he was one of the first men to formulate the idea of doing just that.<sup>21</sup> Although this idea may have been based on general Baconian principles, he alone deserves credit for setting out the first concrete proposal for an archaeological application of these to a specific situation. The fact that this treatise is wholly free from philosophical speculation and literary parallels suggests in itself the direction in which it was pointing--towards the modern tradition of archaeological investigation later propounded by the Royal Society. Therefore, it seems that the varying nature of Browne's studies may indeed place him in the category of a "transitional" figure if not a "Modern." It is the use of reason and experience which primarily associates Browne with the Moderns, even if his use of authority tends to place him with the Ancients.

John Aubrey's polymathical interests, as will be seen, exhibit the inconsistencies found in the work of the Royal Society during its early stages, which was characterized by a melange of pre-scientific as well as

modern investigation. The first volumes of the Society's Philosophical Transactions, for example, contain many contributions which today would be dismissed as pre-scientific nonsense, magic, and so on. For instance, we find a consideration of the alleged healing power of a stone taken from a snake's head in Java.<sup>22</sup> According to Keith Thomas, William Harvey and the other members of the Society (including its first President, Henry Oldenburg) shared a belief in astrology.<sup>23</sup> Robert Plot was much involved in alchemical speculation; while Robert Boyle searched for experimental proof of transmutation and witchcraft.<sup>24</sup> Even John Ray, who, while he rejected the "Doctrine of Signatures" (which held that some intrinsic property of a plant suggested to man its use as a specific cure), still was able to write that:

One observation I shall add relating to the Virtues of Plants, in which I think there is something of Truth, that is, that there are, by the wise Disposition of Providence, such Species of Plants produced in every Country as are most proper and Convenient for the Meat and Medicine of the Men and Animals that are bred and inhabit there.<sup>25</sup>

But as time went by, and as Thomas Sprat and many of the other Moderns assailed astrology and magic, a new tone was becoming apparent in the Philosophical Transactions. The Society was beginning to commit itself seriously to a mixture of natural and civil studies, with increasing emphasis on what today we conventionally describe as natural history. Martin Lister, who exerted a considerable interest

upon the regional writers, contributed articles on topics such as plant and animal life which he had examined.<sup>26</sup> Between 1663 and 1703 several papers on pre-Roman Britain and on other archaeological topics were also included in the Philosophical Transactions. So, "natural history" came in time to be one of the premier concerns of the Society. The founders first met to practise the "New Philosophy," and they understood by that "Physick, Anatomy, Geometry, Astronomy, Navigation, Staticks, Mechanicks, and Natural Experiments." History is not mentioned, while what we today consider as "archaeology" would then have still fallen under the label "antiquities."

Of equal importance to the regional writers were the proposals and the questionnaires set out by members of the Royal Society for the systematic study of natural phenomena, of the kind that had inspired Johnston. A "Geographical Committee" was appointed by the Society in March, 1664, and, in connection with the design of the Society to collect "Histories of Nature and Arts," it proposed the drawing up of "Heads of Enquiries" in the form of a questionnaire to be sent out to "experienced Husbandmen in all the Shires and Counties of England, Scotland and Ireland."<sup>27</sup> This was done in the earnest desire that the recipients would:

. . . from their owne and their knowing friends observation and experience, give as full and as punctuall answers thereunto, as they could; that thereby it might be knowe, what is knowne and done already, both to enrich every place with the aides, that are found in

any place, and withall to consider, what further improvements may be made in all the practise of Husbandry.<sup>28</sup>

The "Heads of Enquiries" were duly printed (Philosophical Transactions 1 (1665)) and consisted of questions on the types of soil found in various parts of the country, how these might be improved, on the methods of agricultural production, and so on. These first enquiries generally met with a low level of response. But this attempt to compile descriptions of agricultural practices from all parts of Britain "is in itself," according to Reginald Lennard, "a significant fact both in agricultural history and in the history of English science," because it showed "how keenly interested the scientific researchers of those days were in matters of practical utility."<sup>29</sup>

Soon afterwards Boyle advocated a similar plan, one specifically related to the interests of the regional writers.<sup>30</sup> Boyle's "Heads" established the nature of the required research, e.g.:

1. To the First sort of Particulars, belong the Longitude and Latitude of the Place . . . and consequently the length of the longest and shortest days and nights, the Climate, parallels, etc. . . .

3. About the Air may be observ'd, its Temperature, as to the first four Qualities (commonly so call'd) and the measures of them: its Weight, Clearness, Refractive power: . . . What duration the several kinds of Weather usually have: What Meteors it is most or least wont to breed. . . .<sup>31</sup>

Boyle also stressed the importance of investigating "the Earth itself" (topography, the specific nature of the soil,

etc.), and of also noting the appearance and notable characteristics of the inhabitants:

4. [In addition to] Productions of the Earth, there must be a careful account given of the Inhabitants . . . settled there: And in particular, their Stature, Shape, Colour, Features, Strength, Agility, Beauty (or want of it) Complexions, Hair, Dye, Inclinations, and Customs that seem not due to Education. As to their Women (besides other things) may be observed their Fruitfulness or Barrenness; their hard or easy Labour, etc. And both in Women and Men must be taken notice of what diseases they are subject to, and in these whether there be any Symptome, or any other Circumstance, that is unusual and remarkable.<sup>32</sup>

The compilation of material on the "External Productions of the Earth" (grasses, grains, timber, animals) was advocated; and "Subterraneal observations," i.e., those regarding types of minerals and quarry-stones, also found a place in his "Heads."

The proposals of the "Geographical Committee" and those of Boyle seemed to unleash a flood of similar ones. Thus we find John Hoskyns advocating "a physical survey, e.g., what soyle, what temper, how early things ripen, how healthy the inhabitants and . . . what fruits the land is most given to etc. . . ." <sup>33</sup> Later John Woodward formulated Brief Instructions for Making Observations in All Parts of the World (1696). John Aubrey, meanwhile, was especially receptive towards the idea of a geological survey of Britain, one which was also suggested by Lister in a paper read to the Royal Society, and which contained a proposal for a new soil map.<sup>34</sup> Aubrey "oftentime wished for a mappe

of England coloured according to the colours of the earth; with markes of the fossiles and minerals."<sup>35</sup> Another one of his projects included aiding John Ogilby in drawing up a set of printed queries.<sup>36</sup>

The interest of Englishmen in natural history soon extended to all parts of the earth. The New World received its share of attention. Plot's Oxfordshire served as a model for John Banister's unfinished "Natural History of Virginia"; Richard Blome added a description of laws and customs to A Description of the Island of Jamaica, which also contained extensive natural history. Thomas Glover's account of Virginia, meanwhile, primarily concentrated on the natural phenomena; and the list goes on and on.<sup>37</sup> The casual traveller was also drafted into the service of the Royal Society. R. W. Frantz has admirably shown how the Society impressed upon the traveller the inestimable value of accurate observation and furnished him with a set of directions to guide him towards this goal.<sup>38</sup> There was an added incentive; frequently a traveller obtained permission to print his findings in the Society's Philosophical Transactions, alongside those of the famous scholars of the day. Such scientifically-based findings received considerable critical praise.

And so, scientific activity was stimulated on all fronts.<sup>39</sup> No longer would it be considered sufficient for any serious scholar merely to perambulate the region that

engaged his attention, gathering information on the basis of visual observation and local hearsay alone. No longer would it be deemed a worthwhile task for him to design a study around the genealogies or pedigrees of this or that family. No longer, also, would the eclectic selection of information from literary sources alone be considered appropriate; investigation of the natural phenomena of the local environment would also be required of him. The desire to write natural histories, then, was part of the Baconian aim of the scientists of the age. It "received a new impetus in the late seventeenth century, gaining a topographical application that allowed it to benefit from the enthusiasm for antiquarian topography of the previous century," by which time Kendrick's "fogs" were rapidly dissipating.<sup>40</sup>

During the intervening period between the publication of Gerard Boate's Ireland's Naturall History in 1652, and that of Robert Plot's Oxfordshire in 1677, regional study was still in a state of flux. It seems that in the minds of men natural history and, to a lesser degree, chorography competed for position as the most useful method of describing a region. These two opposing--if related--forces are perhaps most vividly exhibited in the work of two men, Joshua Childrey and John Aubrey. These two figures are the regional writers most closely associated with the activities of the Royal Society in its formative years. Therefore, it is not entirely surprising that they displayed



Fig. 10. John Aubrey, F.R.S.

a keen interest in natural history, to the point where it largely superseded chorography in their work. It is their rather haphazard though ingenious work which serves as a major bridge between the chorographers and the practitioners of natural history.

Joshua Childrey's Britannia Baconica, or the Natural Rarities of England, Scotland, and Wales excluded pedigrees because they had been "copiously handled" previously by Lambarde, Camden, Dugdale, and Philipot, amongst others.<sup>41</sup> This book, as Hunter so aptly puts it, "illustrates well how pure description could be seen by the ardent Baconian as the only proper concern of the scientist."<sup>42</sup> Childrey (1623-1670) was educated at Rochester Grammar School, and entered Magdalen College, Oxford, in 1640, taking his degree of B.A. in 1646. Until the Restoration he spent his time running a school at Faversham in Kent. From 1660 on he made his living as a man of the cloth, successively holding down the posts of chaplain, archdeacon, and rector in diverse towns throughout England. Sometime during this period he came into contact with men of science, as attested by his contribution to the Royal Society's Philosophical Transactions and by his letters to Henry Oldenburg (which have been recently printed).<sup>43</sup>

One reason why Hunter regards Natural Rarities as "a rather more superficial earlier attempt of the same kind as Plot's" is because it exhibits much more of a mixture of

literary sources and empirical observation than do Plot's two main regional works.<sup>44</sup> Despite his profession to the effect that the earlier chorographers hold little significance for his own study, Childrey seeks out information in their works and utilizes it in his own. For example, he quotes Camden's account of certain springwaters near Flamborough Head, and cites the work of Giraldus in the section on Cheshire.<sup>45</sup> On another occasion he enlarges upon Camden's postulation that at one time England was physically joined to the continent.<sup>46</sup> Also, Childrey justifies his description of the caves in Wiltshire on the grounds that he finds no mention of them by any of the antiquaries.<sup>47</sup> But he goes even further than this in that he believes the collection of materials as the main function of natural philosophy. He deplores the fact "that men first fancy Opinions and Axiomes to themselves, and then by the help and art of Distinguishing, wrest and fit particular Instances and Observations to them."<sup>48</sup>

Childrey gave Bacon full credit for establishing the study of natural philosophy, and based the title of his own book on the hope that the book would serve as "part of several Histories" in Bacon's Catalogue, at the end of his Novum Organum. Childrey intended his work for the benefit of the "Vulgar," to instruct them not to scoff at the gentry; that they may come to realize that England does not lack in those things which they admire abroad in their travels.

That the public (and most virtuosi, for that matter) were not yet fully aware of the value of the study of natural philosophy is reflected in his confession ". . . that such kind of writing is a little too bold yet, before the Histories of Art and Nature are compleatly done."<sup>49</sup> One has to remember that his book came out at about the same time that the Royal Society was being founded, and therefore was not as influential as it was to become later.

The "rarities" were described county by county in Childrey's book. We find here chorographic-like accounts of the physical qualities of the population of Devon and Cornwall, who were "active in wrestling, and such boisterous exercises"; an exact description of the medicinal wells at Tunbridge, and of a small underground rivulet of Medway, in Kent.<sup>50</sup> He also reports on phantasmal events, such as that of the horrible and fearful groaning heard many times by fishermen off a shore in Yorkshire when the sea was calm.<sup>51</sup>

This last example is indicative of the continuing interest in any phenomenon which was apparently inexplicable. Childrey speculated about the influence of the planets on the weather, and at one point even suggested to Oldenburg that the Society investigate a report that it rained blood near Apsam in Devonshire.<sup>52</sup> But his interest in these types of matters--unlike that of the majority of the chorographers--was tempered by religious scruples.<sup>53</sup>

Experiment and inductive methods played a leading role in Childrey's work. On several occasions he forwarded material of the type found in the Natural Rarities to the Royal Society, for which he was highly praised by Oldenburg.<sup>54</sup> In this fashion the Society received detailed information from Childrey on experiments such as one involving quicksilver, whereby the quicksilver, if properly "fixed," would take off the impression of any seal in wax:

1. Salis Albi lib. unam. Floris aeris finely pulverized uncias sex. Argenti vivj uncias tres. [One pound of white salt of tin. Six ounces of finely pulverized verdigris. Three ounces of quicksilver.] First take a Frying pan, and fill it full of clean water, hold it over the fire till it be hot. Then adde the salt, and afterwards the Verdegrase, and let them boile, till it' come to a purple colour. Then adde ye Quicksilver, and let it boile. Scum off the froth, and at last poure off ye water, and put the compounded quicksilver into a stone Morter and with a pestle agitate it, till it become very cleare, and well purged. Wash it with the liquor still pouring on more, till it be perfectly cleansed. Then forme the masse into the fashion of seales. And if at anytime the moss grows too hard, it is but adding a little more quicksilver, and it will be fit for operation. This was given me by a very ingenious Gentleman (now dead) in manuscript. . . .

Oldenburg, for his part, enlisted Childrey in the Society's project of collecting information on various matters concerning husbandry through the use of its agricultural enquiries.<sup>56</sup> Childrey, as he tells us himself, "first fell in love with the L. Bacons Philosophy in ye yeare 1646, and tried several Experiments (though such as I now reckon not to be of any moment) in 1647, 1648, 1649, and 50."<sup>57</sup> The material for his Natural Rarities he culled from such

experiments, and from several of his notebooks which contained various observations on the physical environment. (These he intended to bequeath to the Society).<sup>58</sup> In Natural Rarities we are told of the localities where snake-stones, star-stones, cockles, periwinkles, oysters, scallops, and mussels are preserved in solid stone. Thus, today Childrey is best known as the earliest British writer to frequently refer to fossils.<sup>59</sup> His prime importance to this study is based on the fact that Robert Plot later patterned his own studies in large part on Childrey's Natural Rarities.

The major link between Childrey and Plot was John Aubrey (1626-1697). Like Childrey, Aubrey collected into notebooks his own observations on antiquities and natural phenomena, beginning in the 1650s. As a scientist Aubrey left much to be desired, even by the standards of his day. Having read one of Aubrey's manuscripts John Ray wrote him: "I think, (if you can give me leave to be free with you) that you are a little too inclinable to credit strange relations," and White Kennett said that Aubrey was known as "the Corruption Carrier to the Royal Society."<sup>60</sup> And, compared to the more precocious founders of the New Philosophy (like Boyle, Wren, and Hooke), Aubrey has been called a backward-looking dilettante: ". . . his interests being, on the whole, in the past rather than the future."<sup>61</sup> The two-sidedness of Aubrey's interests is evident when one

considers that on the one hand he was able to compile a work largely devoted to archaeology, the "Monumenta Britannica," which was thoroughly in tune with the modern scientific antiquarianism, while on the other hand his Miscellanies, a work on folklore, ghost stories, magic, astrology, etc., demonstrates his credulousness and involvement with hermetic lore.

Thus, the debate among historians and scientists over the question of whether Aubrey properly should be counted with the "Ancients" or the "Moderns" has not yet been settled.<sup>62</sup> Aubrey was Baconian in his scientific writings, mainly due to his desire to uncover practical knowledge of the type that would allow man to establish some control over his life. He believed that the temperament and character of the people were affected by the air they breathed, their diet, and the type of soil on which they lived. In his "Natural Historie of Wiltshire," for example, he observed that regional differences of pronunciation "must proceed from the earth, or aire or both"; or that "At Huntley in Gloucestershire, the nature of the people breakes with the soile. . . ."<sup>63</sup> This type of environmental determinism was mixed with astrology as a basis for many of his explanations. Thus, while he was ostensibly compiling a natural history of the Baconian type, i.e., useful as the groundwork for discovery through inductive reasoning, he was actually looking for ways to

support his opinions. The desire for practical knowledge, according to Hunter, also led Aubrey to write his Brief Lives, his most famous study: "One of his aims in collecting the biographical data used in Brief Lives was to collate human life with its astrological circumstances."<sup>64</sup> Hunter believes that it was a "streak of practicality" that led Aubrey to value the magical element in the Miscellanies as well as the natural phenomena in his "Natural History of Wiltshire."<sup>65</sup> Hunter's view, overall, is that Aubrey was a serious intellectual, actively and enthusiastically involved with the scientific movement of his time. The appreciation of Aubrey's genius is a recent development; the typical eighteenth-century view that he was quite credulous is summarized in a piece in The Gentleman's Magazine which referred to Aubrey as a "gossiping anecdote-monger," one who was unable to "discriminate the gold from the dross, the truth from the lies," and who "transmitted a variety of tittle-tattle."<sup>66</sup> Despite Ray's mild rebuke, most of Aubrey's contemporaries held him in high esteem. His membership in the Royal Society was public recognition of excellence, and his friendships with the leading figures of his day was a further honour. His contemporary reputation as an important investigator is reflected in the fact that Charles II commissioned him to survey Stonehenge and Avebury; he, like most of the people who knew Aubrey personally, tended to overlook Aubrey's quirks.

The story of Aubrey's life is well known. He was born of a gentleman estate owner, Richard Aubrey, at Easton Pierse in Wiltshire, where, ". . . the Indigenae or Aborigines speak drowling, they are plegmatique, skins pale and livid, slow and dull, heavy of spirit . . . generally apt to be fanatics . . . their persons are generally plump and faggy. . . ." <sup>67</sup> Aubrey at first received a private education under Robert Latimer (Thomas Hobbes's preceptor) and then proceeded to Oxford, entering Trinity College in May, 1642. Small-pox and civil war interrupted his stay there, but after three years he was able to continue his studies at Oxford and later at the Middle Temple, although he was never called to the bar. During this period his reading of Browne's Religio Medici, which had just been published, and his contributing a plate of Oseney Abbey to Dugdale's Monasticon, developed his interest in antiquarianism. In 1652 Aubrey's father died, leaving him with an estate which was to involve him in innumerable lawsuits. These, and some unfortunate matrimonial predicaments eventually ruined Aubrey financially and, for quite a while, affected him emotionally. These events, as it turned out, proved to be a blessing in disguise, since Aubrey found some consolation in directing his energies to the pursuit of antiquarian knowledge.

That he might not have been as backward-looking as some historians suppose might be deduced from the following

comment, where he writes that until about the year 1649, when the Royal Society had its embryonic beginnings at Wadham College, Oxford:

. . . 'twas held a strange presumption for a man to attempt an innovation in learning; and not to be good manners to be more knowing than his neighbours and forefathers. Even to attempt an improvement in husbandry, though it succeeded with profit, was look't upon with an ill eie. . . . 'Twas held a sinne to make a scrutinie into the waies of nature; whereas Solomon saieth, Tradidit mundum disputationibus hominum: and it is certainly a profound part of religion to glorify God in his workes.

To those times to have had an invention and enquiring witt was accounted resverie (affectionation), which censure the famous Dr. William Harvey could not escape for his admirable discovery of the circulation of the blood. He told me himself that upon his publishing that booke he fell in his practice extremely.<sup>68</sup>

Aubrey frequently refers to the earlier, pre-Royal Society period of science as the "darke time." He was elected to the Society in May, 1663, but before this he belonged to the club of "Commonwealth Men" at Oxford. Compared to the high standards of investigation exemplified in the Royal Society after its foundation, the scientific concerns and projects espoused at Commonwealth Oxford seem rather puerile.<sup>69</sup> But it was at this time that Aubrey was first exposed to the new methods of empirical investigation, and to the ideas concerning the practical applications of new discoveries and inventions, such as William Petty's sowing and harrowing engine, Christopher Wren's balance and machine for double writing, and so on.<sup>70</sup> It was also during this period that Aubrey met Samuel Hartlib, who impressed Aubrey with his

practical scientific programme.<sup>71</sup> The Oxford group encouraged Aubrey to attempt a minor Baconian effort of his own, and so in 1656 he began compiling material for a natural history of Wiltshire. Aubrey apparently needed little prompting, for he enjoyed undertaking the type of work such a compilation necessitated. But he preferred going out into the countryside, talking with local inhabitants, observing historical trends in architectural design, and collecting and evaluating artefacts, over what he considered the more arduous conventional type of historical-genealogic research found in most contemporary regional studies. To be sure, he realized the value of archival research and utilized documentary material in many of his works. However, he found "this searching after Antiquities is a wearisome Taske," one in which "of all studies I take the least delight in this."<sup>72</sup>

Aubrey added a new dimension to John Leland's original goal of surveying the entire country, as revealed in Aubrey's dictum that: "Their is no Nation abounds with . . . [more] varieties of Soiles, Plants, and Mineralls, than ours: and therefore it very well deserves to be surveyed."<sup>73</sup> However, one of the first regional studies that he undertook, the "Essay towards the Description of the North Division of Wiltshire," was directly modelled on Dugdale's Warwickshire, i.e., it was based on the same kind of heraldric and genealogic information, derived from similar

documentary and monumental sources. Thus it largely resembled the earlier chorographies. Dugdale happened to be a close friend of Aubrey's and they exchanged various pieces of antiquarian information over the years. But the immediate impetus for the compilation of this work came from a meeting of gentlemen at Devizes in 1659, where "It was wish't by some, that this County (wherein are many observable Antiquities) were surveyed in Imitation of Mr. Dugdale's Illustration of Warwickshire." As it was too large a task for one man, "Mr. Yorke . . . advised, to have the Laboure divided. I would undertake the North."<sup>74</sup> To be truthful, the manuscript of the "North Division" makes no pretension to the dignity of a full-fledged chorography. It consists, in reality, of Aubrey's notebooks where the arrangement is irregular. Despite this, it holds information of considerable chorographic value for the region it treats. Aubrey began these notebooks in 1659, and lingered over this work most of his life, although he thought he was close to completing it about 1671. His hope was that it would one day fall into the hands of some antiquary who would properly assemble it.

Aubrey's Preface to the "North Division" contains an apologia for the reconstruction of the past from fragmentary relics, one in which Aubrey's disdain for Puritan zealots is not hidden:

In former daies the Churches and great houses hereabout did so abound with monuments and things remarqueable that it would have deterred an Antiquarie from undertaking it. But as Pythagoras did guesse at the vastnesse of Hercules' stature by the length of his foote, so among these Ruines are Remaynes enough left for a man to give a guesse what noble buildings, etc. were made by the Piety, Charity, and Magnanimity of our Forefathers . . . so here, the eie and mind is no less affected with these stately ruines than they would have been when standing and entire. They breed in generous mindes a kind of pittie; and set the thoughts aworke to make out their magnificence as they were when in perfection. These Remaynes are 'tanquam tabulata naufragii' (like fragments of a Shipwreck) that after the Revolution of so many yeares and governments have escaped the teeth of Time and [which is more dangerous] the hands of mistaken zeale. So that the retrieving of these forgotten things from oblivion in some sort resembles the Art of a Conjuror who makes those walke and appeare that have layen in their graves many hundreds of yeares: and represents as it were to the eie, the places, customs and Fashions, that were of old Time. It is said of Antiquaries, they wipe off<sup>75</sup> the mouldiness they digge, and remove the rubbish.

The Preface also contains a summary history of England, which is one of Aubrey's finest pieces of sustained writing. He begins: "Let us imagine what kind of countrie this was in the time of the Ancient Britons," and goes on to describe the ancient inhabitants as "almost as savage as the Beasts whose skins were their only rayment."<sup>76</sup> Relying on Camden, Aubrey tells us how the Romans were able to subdue and civilize them. From this point on the narrative follows the successive waves of invaders until the story is brought up to Aubrey's time.

Aubrey's strong interest in architectural history and religion is brought to light in this opening section, where the two subjects are interwoven. Some of his

information was obtained from Dugdale, who held similar interests, but in the main Aubrey based his remarks on his own personal observations, e.g.: "When I came to Oxford Crucifixes were common in ye glasse in the studies window: and in the Chamber windowes were canonized saints. . . . But after 1647 they were all broken: Down went Dagon. Now no religion to be found."<sup>77</sup> Aubrey's main interest was in coats of arms, window paintings, and inscriptions, many of which he quoted verbatim in his study. Although these interests were common to other chorographers, in Aubrey they seem to be connected with what almost could be termed a type of religious mysticism, one which is difficult to explain. Aside from his inordinate interest in the architecture of churches and other religious houses and in their artefacts, Aubrey finds it almost impossible to discuss anything without some sort of allusion to the religious element. Thus, in a very abbreviated description of Haselbury Quarry, he finds time to invoke "The old men's story" that it was upon the direction of St. Adelme that the quarry was miraculously discovered.<sup>78</sup> The countryside through which he journeyed in search of his material delighted him. Of Down Ampney House he informs us:

This is a very noble seate . . . situated with great convenience for pleasure and profitt: By this house runnes a fine brooke, which waters these gallant meadowes on the west sides, where despasture a great number of cattle:- 30 milk-mayds singing.<sup>79</sup>

Neither does the "North Division" lack its share of anecdotes. Riding through Garsdon he recalled the tale of a footman to Henry VIII: Henry, tumbling from his horse, ". . . fell with his head in the muddle, with which, being fatt and heavie, he had been suffocated to death had he not been timely relieved by his footman Mody."<sup>80</sup> As it came to pass, Mody was granted Garsdon Manor for his assistance. Then there is one recounting how Aubrey could not read certain inscriptions on high windows, "for want of a short telescope"; so that the tuckling of the charges on the shields do not always agree with his written descriptions of them. This is yet another example of why Aubrey found research so physically-difficult a task.

Aubrey's personal manner adds vitality to his work, but also makes it difficult for the reader to approach it in a serious manner. He praised much of what had already been lost by the age in which he wrote, but at the same time admitted that everything was not rosy in the days of old. In discussing the social climate of earlier times (another favorite topic with Aubrey), he describes the English court as unpolished and unmannered; that of King James, for example, was, so uncivil to women that the queen herself could not pass by the king's apartment without receiving some affront. Learning from the time of Erasmus until about 1650 is evaluated as consisting of "downright pedantry"; the gentry and citizens were generally unschooled, and "The

conversation and habits of those times were as starcht as their bands and square beards: and gravity was then taken for wisdom."<sup>81</sup> The lively personal style extends to Aubrey's other sources. The anecdotes quoted on the authority of "My Grandfather Lyte," "Judge Jenkins," "the parish clerk's wife," or "old Hughes the gunsmith," often give local illustrations of some interest.

Aubrey's "Perambulation of Surrey" was written mainly in 1673 and resembles the "North Division" in two respects.<sup>82</sup> First, here again is a work which was never intended to serve as a formal topographical history of the county, consisting as it does of notes of a perambulation of the county. Second, it also contains very little natural history, with its concentration being on genealogy and heraldry, even though Aubrey (writing in 1691) claims to have mixed antiquities with natural history in this work.<sup>83</sup> There is a third similarity, this one not in the nature of the work itself, but in the fact that once again Aubrey began the work in cooperation with others but was later left to his own devices. "Surrey" was part of a project by John Ogilby, the King's Cosmographer and Geographer, which aimed at the description of "Britannia," and which was to be part of Ogilby's larger project, "A Description of the Whole World, viz. Africa, America, Asia and Europe."<sup>84</sup> Aubrey, having fallen on lean times, was eager to take up his appointment as Ogilby's Deputy for Surrey after being

recommended to him by Christopher Wren. As in the case of his predecessor, John Leland, Aubrey thus was ensured the assistance of all the Justices of the Peace, mayors, vicars, and other responsible civic officials in his search for antiquities.

Aubrey began his perambulation with zest in early July, 1673, "hoping that the delicate aire and diversion of Surrey will ease my . . . spirit." But by October his role was terminated by Ogilby who, learning that at about this time Plot was formulating a scheme for a series of regional studies along rather different lines, discontinued his own work in this direction. Ogilby now preferred to use ". . . what scraps he can get out of bookes or by heere say."<sup>85</sup> This naturally disappointed Aubrey, and he could not conceal his frustration. Referring to Ogilby, he said: "God deliver me from such men."<sup>86</sup> But after so much work, Aubrey experienced several misadventures including one which saw his horse stolen at Esher, and one involving his losing his money; hence he was reluctant to lay aside his notes on "Surrey." Thus he continued to add material to the 1673 base for many years afterwards.

Aubrey begins with the Thames River. Searching into etymology he quotes Edward Lhuyd's opinion of the origin of the word "Thames," which was contained in one of Lhuyd's letters to him.<sup>87</sup> From here on the coats of arms and transcriptions of memorial tablets tend to dominate the

text. Included in this study were the "Queres In Order to the Description of Britannia," which he had earlier considered with Ogilby and others. The first of these pertained to the type of material normally found in chorographic literature, e.g., cities, their antiquity, government, fairs, etc., but there also were those which featured the kind of information which one looks for in natural histories, but which Aubrey himself generally disregarded in "Surrey."<sup>88</sup> Aubrey, despite his disappointment over the actions of Ogilby, was nevertheless pleased to hear of Plot's intended "Natural History of England": "I am right glad to heare of Dr. Plott's Designe, it agrees so much with my Humour. I can much assist him in it: having a good Penus naturales [store of natural history] of my owne Collecting: which I daily augment."<sup>89</sup> From this time on, especially, Aubrey took interest in Plot's work and the two men came to aid other in their respective efforts; and so the relationship proved to be of mutual benefit. Aubrey tells us how in 1675 he ". . . came contracted and acquainted with Dr. Rob. Plott, who . . . had then, ["upon the Loome"] his Naturall History of Oxfordshire: wch, I seeing he did performe so excellently well."<sup>90</sup> Aubrey went on to describe how he had sent Plot his own papers, including "Surrey," and offered Plot assistance in undertaking a natural history of Wiltshire. But Plot had already been invited into Staffordshire, ". . . to

illustrate that Countrie." This he did, finishing his work in December, 1684, and so Aubrey ". . . importuned him again to undertake this county [Wiltshire]; but he replied, He was so taken up . . . of the Musaeum Ashmoleanum.<sup>91</sup> Plot by this time was determined to meddle no more in county natural histories (unless it be that of his native Kent), and so he encouraged Aubrey to finish and publish his collections on Wiltshire before they either should perish or be attributed at some future date to someone else. The result of this was the compilation, largely in 1685, of Aubrey's notes into the "Naturall Historie of Wiltshire," his only regional study which incorporated a large amount of information on natural phenomena, and which he claimed to be the first essay of its kind in the nation.<sup>92</sup> Beginning work on it in 1656, he appears to have continued to add material to this production, as he did to his other regional studies, for several decades; in this case until 1691, when two draft volumes (Aubrey MSS, 1,2) were submitted to the Ashmolean. (A separate draft volume was submitted to the library of the Royal Society). According to Aubrey it was a "secret Call" that had originally drawn him to pursue this kind of study:

I was from my Childhood affected with the view of things rare; which is the beginning of Philosophy: and though I have not had leisure to make any considerable proficiency in it; yet I was carried on with a strong Impulse to undertake this Taske. I know not why; unless for my own particular private pleasure.: Credit there was none: for it getts the contempt disrespect of a mans Neighbours. But I could not be quiet till I had obey'd

this secret Call. Mr Camden, Dr. Plott and Mr Wood confess the like same.<sup>93</sup>

In "Wiltshire" he describes the country under numerous headings: "Air," "Springs Medicinal," "Rivers," "Soils," "Minerals and Fossils," "Stones," "Formed Stones," "Plants," "Beasts," "Fishes," "Birds," "Reptiles and Insects," "Diseases and Cures," "Gardens," and so on. This study then, like Childrey's, represented a new approach in the field of regional study, contrasting with the earlier chorographies in the greater detail with which the natural phenomena of regions were described and arranged. The topics found in these works--with particular regard here to Aubrey's book--were quite similar to the concerns of the Royal Society.<sup>94</sup> Nevertheless, neither of these two regional writers can be referred to as a "natural historian" in the strictest sense of the term. Aubrey is now known more for his archaeological investigations than for his natural historical studies.

In addition to Dugdale, Aubrey also had great respect for Carew, Owen, and for the other early giants of chorography.<sup>95</sup> For example, in order to discover the proportion of the Downes of Wiltshire to the vales he divided Speed's map of the county, "with a pair of cizars, according to the respective Hundreds of Downes and Vale and I weigh them in a curious balance of a Goldsmith. . . ."<sup>96</sup> He was also deferential to the "curious enquiry" of John

Stow. But, although he also admired Camden, he was misled once because "I could not in modesty, but jurare in verba tanti Viri, 'trust in the words of such a man.'"<sup>97</sup> Among the other antiquarian works that he utilized, Weever's Ancient Funerall Monuments held a prominent position.

Aubrey named the Preface of "Wiltshire" the "Chorographia super-et-subterranea naturalis" ("natural chorography above and below ground"), which consisted of an account "of what parts of England I have seen, as to the soiles."<sup>98</sup> In this context Aubrey used the term "chorography" solely to denote the new type of soil or "land" studies now being carried out by many members of the Royal Society, while dispensing with the up-till-then accepted usage of the term. The "Chorographia" was originally sent to Martin Lister in 1684 in connection with the paper read by Lister at the Royal Society which advocated a geological survey of Britain. Because Lister was perhaps the first Englishman to envisage such a scheme, his specific proposal for the project of a geological map is worth quoting in whole:

We shall then be better able to judge of the make of the Earth, and of many Phaenomena belonging thereto, when we have well, and duly examined it, as far as human art can possibly reach, beginning from the outside downwards. As for the more inward and central parts thereof, I think we shall never be able to confute Gilbert's opinion thereof, who will, not without Reason, have it altogether Iron. And for this purpose it were advisable, that a Soil or Mineral Map, as I may call it, were devised. The same Map of England may, for want of a better, at present serve the Turn. It might be distinguisht into Countries, with the River and

some of the noted Towns put in. The Soil might either be coloured, by variety of Lines, or Etchings; but the great care must be, very exactly to note upon the Map, where such and such Soiles are bounded. As for example in Yorkshire (1.) The Woolds, Chaulk, Flint, and Pyrites, etc. (2.) Black moore; Moores, Sandstone, etc. (3.) Holderness; Boggy, Turf, Clay, Sand-stone, Coal, Iron-stone, Lead Ore, Sand, Clay, etc. Nottinghamshire; mostly gravel Pebble, Clay, Sand-stone, Hall-playster, or Gypsum, etc. Now if it were noted, how far these extended, and the limits of each Soil appeared upon a Map, something more might be comprehended from the whole, and from every part, then I can possibly foresee, which would make such a labour very well worth the pains. For I am of the opinion, such upper Soiles, if natural, infallibly produce such under Minerals, and for the most part in such<sup>99</sup> order. But I leave this to the industry of future times.

Lister was interested in geology for its own sake but his proposal contained little, if anything, relating to the process of stratification nor to the order or superposition of the soils. But among Aubrey's "many . . . clever remarks on Geology, [made] long before the principles of that Science were systematically laid down. . . ,"<sup>100</sup> were ones which indicate that he had a considerable knowledge of the major trends in English stratigraphy, as well as of the soil patterns.<sup>101</sup> For example, like Owen, half a century earlier, he noted that "East from Bridgeport in Dorsetshire to Dover in Kent, runnes a veine of Chalke: and the like south and north from Merton in South Wilts., near to Calne in North Wilts. . . ."; or, "The Isle of Wight is Chalke: the Needles at the west end are pricked Rocks of Chalke. . . ."<sup>101</sup> Aubrey's geological observations were those of a practical field researcher. And so, he described the structure of a deposit of "Thunder-stones" (pyrite),

noting that its distance from any navigable river made it commercially unviable to exploit.<sup>102</sup> He personally had tested a mineral vein thought to hold iron pyrite, only to discover that it contained a deposit of marcasite.<sup>103</sup>

The new scientific antiquarianism which is primarily exhibited in some of Aubrey's other works does, however, have its place in "Wiltshire" (even if the terminology is not exactly "Modern"), and especially in the "Chorographia" section. Like Childrey, for example, Aubrey took an interest in "petrified shells" or fossils: "As you ride from Cricklad to Highworth, Wiltsh., you find frequently roundish stones . . . which (I thinke) they call braine stones, for on the outside they resemble the venticles of the braine; they are petrified sea mushrooms."<sup>104</sup> In Aubrey's day the term "fossil" had not yet assumed its modern meaning, i.e., those remains--whether an impression, trace or actual fabric--of animal and plant life from a previous age which are found embedded in the earth's crust. In the seventeenth century fossils were still denoted as "All bodies whatever that are dug out of the Earth."<sup>105</sup> The sole distinction made was between those bodies native to the earth and those which were "adventitious" (also referred to as "foreign" or "extraneous" fossils), ones which were the exuvial or remnants of animals.

Much of what Aubrey had to say about the organic adventitious fossils is contained in a chapter under the

title of "Formed Stones" (which incidentally indicates the broad usage of the term "fossil" as compared to its modern, narrow meaning).<sup>106</sup> Yet he was also keenly interested in anything else dug out of the earth, including the "Mineralls" (metals). He described these in detail in another chapter, giving their locations and at times referring the reader to other sources of information on the subject, including Childrey's work.<sup>107</sup> Two other chapters, one on the soil-types and one on "Stones," comprise the remainder of the geological portions of "Wiltshire." It was here that Aubrey noticed that Bacon used to experiment with different types of soils to produce several sorts of plants.<sup>108</sup> This brings us to yet another aspect of Aubrey's investigations, namely his use of the geological outline as a foundation for natural history, i.e., his attempt to come to practical conclusions through correlations between geology and vegetation. He had hoped that certain trees could be identified as the products of distinguishable "marks of minerals," and similarly believed that a great variety of "earths" would result in many sorts of plants; that red earth bears good barley; that "At Bradfield and Dracot Cerne is such a vitriolate earth . . . [that it] makes the land so soure, it beares sowre and austere plants"; and so on.<sup>109</sup> However, in a less scientific manner he extended this type of analysis to his general hypothesis that: "According to the severall sorts of earth in England (and so

all the world over) the Indigenae are respectfully witty or dull, good or bad." As we have seen, Aubrey applied this reasoning to the particular context of his fellow Wiltshiremen.<sup>110</sup>

The first part of "Wiltshire" also included "An Hypothesis of the Terraqueous Globe. A Digression." This consisted of a review of the various current palaeontological theories of the origins of the earth. Thomas Burnet's Telluris theoria Sacra, presenting the most famous of these, strove to combine old and new science in a sort of justification of God's ways with respect to the creation and the workings of the universe. According to Burnet, in the Creation God surrounded the earth with a cover of water with oil floating on top, and superimposed on this a globe of dust-filled air. The dust descended into the oil creating a smooth crust which became a global paradise.<sup>111</sup> Of course, all this was done in accordance with Natural Providence, and correlated with the biblical phenomenon of the Noachian flood, then commonly known as the "Great Deluge." Aubrey found much to criticize in Burnet's eschatology, arguing that even though the occurrence of "petrified fishes' shells gives clear evidence that the earth hath been all covered over with water," the present surface of the earth is also the result of a series of earthquakes and not the flood alone. "As the world was torne by earthquakes," he observed, "as also the vaulture by time foundered and fell

in, so the water subsided and the dry land appeared." He continued: "Then, why might not that change alter the center of gravity of the earth? Before this the pole of the ecliptique perhaps was the pole of the earth."<sup>112</sup> Aubrey was not, as Britton has noted, inclined to read the sacred writings too literally on this subject, preferring to avoid conflict with official church doctrine on the earth's creation, as revealed by his referral of the reader to Pere Richard Symod's then-radical belief that the scriptures may in some places be erroneous when it comes to philosophy (even though the doctrine of the church by itself is correct).<sup>113</sup> Hunter believes that Aubrey's overall position on the entire matter was unusually radical even among the most advanced thinkers, since Aubrey held that the world is older than was commonly supposed in his time, something which he thought could be proved by the study of stratigraphy, and since most of Aubrey's contemporaries unflinchingly accepted the authority of biblical chronology on this topic.<sup>114</sup> The remainder of the first part of "Wiltshire" contains material closely related to the kind found in the earlier chorographic literature, especially in the descriptions of the rivers and the flora and fauna. But even here Aubrey manages to eagerly endorse the schemes that were part and parcel of the intellectual baggage shouldered by the Fellows of the Royal Society. He was particularly fond of the idea, for example, that if the Thames and the

North Avon rivers ". . . were married by a canal between them, then might goods be brought from London to Bristol, which would be an extraordinary convenience both for safety and to avoid overturning."<sup>115</sup>

Of less scientific value are Aubrey's views on certain other matters. In the Chapter "Of Men and Women" he displays that typical Restoration fascination with freaks and the improbable, in his recitation of Wiltshire occurrences of remarkable longevity, monstrous births, etc.:

Mr. William Gauntlett, of Netherhampton, born at Amesbury, told me that since his remembrance there were digged up in the churchyard at Amesbury which is very spacious, a great number of huge bones, exceeding, as he sayes, the size of those of our dayes. At Highworth, at the signe of the Bull, at one Hartwells, I have been credibly enformed is to be seen a scull of a vast bignesse, scilicet, half as big again as an ordinary one. From Mr. Rich. Brown, Rector of Somerford Magna.<sup>116</sup>

Then there is his preoccupation with astrology and with the supernatural. Aubrey included various observations on occult phenomena in his writings on natural history. Magic, witchcraft, apparitions, and "accidents" all had their place alongside the accounts of natural phenomena, particularly in the chapters on "Air," "Accidents," and "Fatalities of Families and Places." Sometimes Aubrey provided a rational explanation for a phenomenon generally considered to fall within the realm of the supernatural, but this was not usually the case. Hunter claims that Aubrey tried to understand the world of the supernatural for the same reason

that he looked for answers in the natural world--he wished to manipulate it for utilitarian purposes. However, the fact that Aubrey eventually removed much of the occult material originally included in "Wiltshire" and put it into his Miscellanies might indicate that he was more critical and that he utilized solid criteria of selectivity to a far greater degree than Hunter alleges.

The second part of "Wiltshire" contains chapters on such miscellaneous topics as the "Worthies" of the county (taken largely out of Fuller's Worthies of England), "Learned Men who received Pensions from the Earles of Pembroke," architecture, gardens, agriculture and the commodities of the county, fairs and markets, "Hawks and Hawking," etc.<sup>117</sup> These also contain practical information and advice, such as "Some Excerpta, out of John Norden's Dialogues. Though they are not of Wiltshire, they will doe no hurt here: and if my countrey-men know it not, I wish they might learn."<sup>118</sup> Aubrey had also inherited Norden's interest in mapping and surveying, though not at a professional level, and quite often he used mathematical instruments in his fieldwork. On other occasions, however, the descriptive element in his work--also based on an eagerness to record anything that might prove to be useful knowledge someday--was strictly the result of unaided visual observation, as in the instance when in 1660 he came upon Wilton House:

There was then remaining on the south side some of the walles of the great gate; and on the north side there was some remains of a bottome of a tower; but the incrustation of freestone was almost all gone; a fellow was then picking at that little that was left. 'Tis like enough by this time they have all digged away.<sup>119</sup>

"Wiltshire," like most of Aubrey's works, never reached the printer during his lifetime. In a letter to Wood Aubrey stated that he had completed the final chapter of this study on 21 April, 1686.<sup>120</sup> John Ray, in 1691, came into possession of the manuscript, and read it "with great pleasure and satisfaction . . . the book cannot but take with all sorts of Readers."<sup>121</sup> He added his own notes to the work and shortly thereafter returned it to Aubrey in the hope that the latter would speed it to the press. Although Aubrey, in fact, already had formulated some vague plan along these lines (which perhaps involved Edward Lhuyd), it came to nothing. He shared the predicament of many of his fellow antiquaries--the inability to secure the kind of effective patronage which would allow him to realize his publishing plans. Aubrey was honoured, however, by the Royal Society, which had a transcript made of "Wiltshire"; but on the whole his study could not and did not amass a large following.

Some of the material found in Aubrey's regional studies is also interspersed in his "Monumenta Britannica," or "A Miscellanie of British Antiquities," although for the most part this work evolved separately, written mainly



Fig. 11. Part of Aubrey's Map of Ancient Wessex, from his "Monumenta Britannica"

between 1665 and 1693. It contains considerably more examples from the rapidly-developing field of scientific antiquarianism, and constitutes the very first work entirely devoted to systematically recording material artefacts and other such finds. It is primarily responsible for Aubrey's widespread reputation today as the first investigator to use modern archaeological methods: "Historians, chroniclers, and topographers there had been before his time; but he was the first who devoted his studies and his abilities to archaeology, in its various ramifications of architecture, genealogy, palaeography, numismatics, heraldry, etc."<sup>122</sup> The appearance of Inigo Jones's The Most Notable Antiquity of Great Britain Vulgarly Called Stonehenge . . . Restored (1655), and several other books on Stonehenge in the 1650s, encouraged Aubrey to investigate this monument for himself. Except for Aubrey's "Monumenta Britannica" these works display few signs of modern archaeology. Jones and the writers stimulated to respond to his book argued the origins of Stonehenge primarily from an historical perspective, utilizing literary sources such as Speed, Verstegan, Stow, Raleigh and Leland as their authorities.<sup>123</sup>

The "Monumenta Britannica" opens with a section entitled "Templa Druidum," which contains most of the archaeology and which Dugdale urged Aubrey to publish.<sup>124</sup> It also holds the first account of the megalithic remains of Avebury, and the first detailed study of Stonehenge.

Aubrey's "discovery" of Avebury would on its own merit have given him a spot in the annals of British archaeology. It was in 1648 during a hunting excursion on the "Grey-Weather" Downes by Marlborough that he first encountered Avebury:

. . . the chase led us (at length) through the village of Aubury, into the closes there: where I was wonderfully surprised at the sight of those vast stones, of wch I had never heard before: as also at the mighty Bank and (ditch) . . . about it: I observed in the inclosure some segments of rude circles, made with these stones, whence I concluded, they had been in the old time complete. I left my company a while, entertaining myselfe with a more delightfull indagation: and then (steered by the cry of the Hounds) overtooke the company, and went with them to Kynnet, where was a good hunting dinner provided.<sup>125</sup>

The direct prompting for Aubrey's study was to come from the king in 1663. Charles had learned of Aubrey's antiquarian efforts from the President of the Royal Society, Lord Brouncker. Having "admired [observed] that none of our Chorographers had taken notice of it [Stonehenge]," he commanded that Aubrey be presented to him, and proceeded to instruct his honoured subject to survey and to describe in writing both Avebury and Stonehenge.<sup>126</sup>

Aubrey, in his survey of Stonehenge, was so thorough that in his plans of it he even showed certain depressions in the ground which were to subsequently disappear from view because of their relative shallowness. (These were relocated in 1921 and are now called the "Aubrey Holes"). Generally, his drawings and notes of the site are extremely accurate and indicate the actual positions of individual

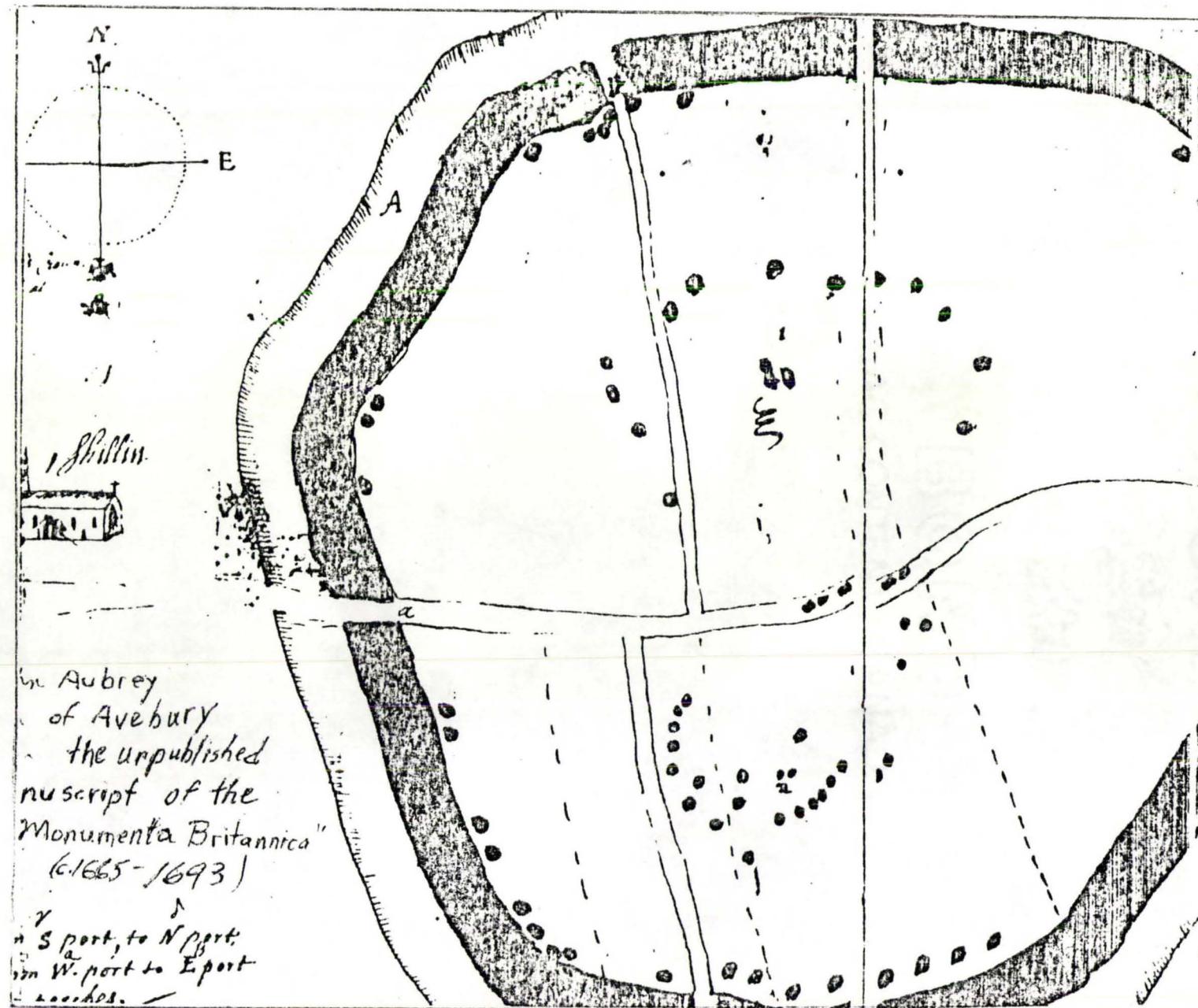


Fig. 12. Part of Aubrey's plan of Avebury, from his "Monumenta Britannica"

stones and earthworks. Furthermore, he was probably the first to label a barrow--one of those features common to Wiltshire and to other areas in Britain--as originating with the ancient Britons, even if he did not find much support for this identification.<sup>127</sup> Refuting the earlier theories which attributed the construction of Stonehenge variously to the Romans, Danes, Phoenicians, or Saxons, Aubrey assigned the origin to the Druids, a conclusion which proved erroneous. The fact that he postponed the publication of his findings until he had investigated all of the other monuments across the land which were comparable to Stonehenge and Avebury demonstrates, according to Glyn Daniel, that Aubrey was thus following a procedure in conformity with that of the modern field archaeologist.<sup>128</sup> So, <sup>A</sup>as Hunter has argued rather successfully, beginning with Aubrey the collection and interpretation of field antiquities was given a new direction through the study of natural history. Observations of the natural environment, in other words, often aided Aubrey in evaluating artefacts from the past. A study of geology, for example, led him to note that the pebbles used on Roman roads were not usually local.<sup>129</sup> In this respect Aubrey pointed the way for future regional studies to follow, i.e., by interlinking the two fields.

His piecemeal collecting was not comparable to the more systematic classification of the rigorous mechanists

like Ray, Lister, Lhuyd, or even Plot. Nevertheless, as Hunter makes clear, Aubrey's work, or methodology:

. . . represented an approach very different from that of the earlier county surveys, contrasting with them in the greater detail with which the natural and artificial phenomena of counties were described and arranged in chapters according to type, air, stones, beasts, and so on.<sup>130</sup>

Aubrey, therefore, broke new ground. But, as mentioned, his rather haphazard collections and his disinclination to quantify or test most things means that the quality of his work never quite attained the same high standard as did that of the men who later adopted a more precise systematic classification of the natural phenomena.<sup>131</sup> This is not to take away anything from the pioneering nature of Aubrey's own investigations. But all this does further indicate that Aubrey was more of the "transitional" figure.

## NOTES: CHAPTER VII

<sup>1</sup>See Thomas Sprat, The History of the Royal Society, 3rd ed., rev. (London, 1722), 61-62, on the purpose of all prospective scientists.

<sup>2</sup>Even though Carew inserted more material on natural history into his study than any other chorographer, as Charles E. Raven, English Naturalists from Neckham to Ray (Cambridge, 1947), 247, states: "In the history of science Richard Carew may be a person of no importance: he made no great discoveries nor much contribution to knowledge," even if "In the history of civilisation he is a portent, a social type, representing a way of life, a quality of culture, a relation to his environment that are altogether novel."

<sup>3</sup>W. N. Edwards, The Early History of Palaeontology (London, 1967), 1; also see J. E. Hare, "Aristotle and the definition of Natural Things," Phronesis 24 (1979):168-179.

<sup>4</sup>They owed a large debt to the men who took the time to translate the classics, such as Philemon Holland, whose The Historie of the World: commonly called, "The Natural Historie of C. Plinius Secundus" (London, 1601) was read by many of the seventeenth-century natural historians; also see Charles G. Nauert Jr., "Humanists, Scientists, and Pliny: Changing Approaches to a Classical Author," American Historical Review 85 (1979):72-85.

<sup>5</sup> See R. F. Jones, Ancients and Moderns: A Study of the Rise of the Scientific Movement in 17th-Century England (St. Louis, 1936), which discusses how the learned men of the seventeenth century gradually came to realize that they were equal--if not superior--to the giants of antiquity; this view was thus shared by the natural historians.

<sup>6</sup> Among the extensive literature on Bacon we find the following studies: Fulton H. Anderson, The Philosophy of Francis Bacon (Chicago, 1948); Benjamin Farrington, The Philosophy of Francis Bacon (Chicago, 1964); James C. Morrison, "Philosophy and History in Bacon," Journal of the History of Ideas 38 (1977):585-606; Paolo Rossi, Francis Bacon: From Magic to Science, trans. Sacha Rabinovitch (Chicago, 1968); Karl R. Wallace, Francis Bacon on the Nature of Man (Urbana, 1967); and Virgil K. Whitaker, Francis Bacon's Intellectual Milieu (Los Angeles, 1962).

<sup>7</sup> Sprat, Royal Society, 1667 ed., 61.

<sup>8</sup> Bacon, Works, 4:293-300. Fussner, Historical Revolution, 153, notes that within the realm of civil history "Bacon failed to discuss some titles which he ought to have recognized as historical. The survey, for example, Bacon ignored although most local history was written in survey form." The "local history" to which Fussner refers to here is that written before Bacon's ideas began to take effect, i.e., the reference is primarily to the chorographic literature. It will be remembered, however, that

chorographers should be regarded as antiquaries, not merely as historians engaged in narrative history. Bacon did in fact have something to say about antiquities, which he considered to be "history defaced, or remnants of history which have casually escaped the shipwreck of time," and which included coins, monuments, proverbs, and the like, out of which "acute and industrious persons" may recover some of the things "lost to time" (Bacon, Works, 4:292,303).

<sup>9</sup>Ibid., 5:131.      <sup>10</sup>Ibid., 4:299.

<sup>11</sup>Sir Francis Bacon, "Preparative toward Natural and Experimental History," in The New Organum and Related Writings, ed. Fulton H. Anderson (New York, 1969), 272.

<sup>12</sup>Bacon, Works, 8:45.

<sup>13</sup>Oxford, Bodleian, Aubrey MS, 3, fol. 18. For a while Aubrey was involved in compiling a biography of Bacon; see Hunter, John Aubrey, 44, 73.

<sup>14</sup>Some of the more influential works are: Thomas Birch, The History of the Royal Society of London, 4 vols. (London, 1756-57); Purver, Royal Society; and, Dorothy Stimson, Scientists and Amateurs: A History of the Royal Society (New York, 1948).

<sup>15</sup>Ibid., 48.

<sup>16</sup>Evans, Society of Antiquaries, 29. In the very next passage Evans, surprisingly, claims that "Yet there was no break with the school of the past," citing as one main example Thoroton's Nottinghamshire as carrying on "the

Elizabethan tradition with little change." This may be true in so far as Thoroton's study happened to be one of the small group of works which carried on in the chorographic tradition, without making the switch to natural history. Unfortunately, Evans fails to notice the main body of regional study which did, in fact, take off in a new direction, thus establishing such a break.

<sup>17</sup> Piggott, "Antiquarian Throught", 112-113.

<sup>18</sup> See, for example, Gordon K. Chalmers, "Sir Thomas Browne, True Scientist," Osiris 2 (1936):28-79; A. C. Howell, "Sir Thomas Browne and 17th-Century Scientific Thought," Studies in Philology 22 (1925):61-80; E. S. Merton, Science and Imagination in Sir Thomas Browne (New York, 1949); Alvin Thaler, "Sir Thomas Browne and the Elizabethans," Studies in Philology 28 (1931):81-117; and C. A. Patrides, ed., Approaches to Sir Thomas Browne (Columbia and London, 1982).

<sup>19</sup> Evans, Society of Antiquaries, 25-26.

<sup>20</sup> Sir Thomas Browne, "Of Hills, Mounds, or Burrows in many parts of England: what they are, to what ends raised, and by what Nations," in Sir Thomas Browne, The Works of Sir Thomas Browne, ed. Geoffrey Keynes, 4 vols., 2d. ed. (London, 1964), 3:84-87. Several of the letters between Browne and Dugdale are contained in ibid., 4:299-327.

<sup>21</sup> This statement requires qualification. The treatise discussed here was apparently written in the late

1650s. It is known that later in his researches Browne went into the field to observe various antiquities, as when he and Robert Plot travelled out to examine the Roman highways (London, BL, Sloane MS, 1899, fol. 3). It is therefore within the realm of possibility that he was also involved in the actual digging for material remains. If this is the case, however, it is just as likely that this was due to the effect of the general scientific climate of the age.

<sup>22</sup>Anonymous, "Of the Nature of a Certainte Stone, found in the Indies, in the Head of a Serpent," Philosophical Transactions 1 (1666):320-321.

<sup>23</sup>Keith Thomas, Religion and the Decline of Magic (London, 1971), 292. It should be noted, however, that Bacon also believed in astrology and in certain aspects of magic. Furthermore, in his desire to have any and all phenomena placed under careful examination, he thus called for a history of "Marvels": "We have to make a collection or particular natural history of all prodigies and monstrous births of nature; of everything in short that is in nature new, rare, and unusual"; Bacon, Novum Organum, bk. 2, sec. 29, quoted in Walter E. Houghton Jr., "The English Virtuoso in the Seventeenth Century (pt. 2)," Journal of the History of Ideas 3 (1942):195. Bacon's warning against including "fabulous experiments, idle secrets, and frivolous impostures, for pleasure and novelty," therefore, tended to

sometimes fall upon deaf ears, even amongst the Fellows of the Royal Society (*ibid.*).

<sup>24</sup> For Plot, see F. Sherwood Taylor, "Alchemical Papers of Dr. Robert Plot," Ambix 4 (1949):67-76. It seems that Plot was not the last alchemist, but that that distinction goes to Sir Joseph Banks; see H. Charles Cameron, "The Last of the Alchemists," Notes and Records of the Royal Society of London 9 (1951):109-114.

<sup>25</sup> John Ray, The Wisdom of God Manifested in the Works of the Creation, 4th ed. (London, 1704), 131; on the "Doctrine of Signatures" see Agnes Arber, Herbals: Their Origin and Evolution. A Chapter in the History of Botany 1470-1670 (Cambridge, 1912), chap. 8.

<sup>26</sup> Robert Sibbald, amongst others, used the Philosophical Transactions as a vehicle for responding to the articles, including Lister's: Robert Sibbald, "A Letter from Sir Robert Sibbald to Dr. Martin Lister Coll. Med. Lond, and S.R.S.. Containing An Account of Several Shells Observed by Him in Scotland," Philosophical Transactions 19 (1696):321-325. Also see E. N. Da C. Andrade, "The Birth and Early Days of the Philosophical Transactions," Notes and Records of the Royal Society of London 20 (1965):9-27.

<sup>27</sup> See Reginald Lennard, "English Agriculture Under Charles II: The Evidence of the Royal Society's 'Enquiries,'" Economic History Review 4 (1932):23-45.

<sup>28</sup> *Ibid.*, 24.      <sup>29</sup> *Ibid.*, 28.

<sup>30</sup> Robert Boyle, "General Heads for a Natural History of a Countrey, Great or Small, imparted likewise by Mr. Boyle," Philosophical Transactions 1 (1666):186-189. These were subsequently published in Boyle's General Heads for the Natural History of a Country . . . for the Use of Travellers and Navigators (London, 1692).

<sup>31</sup> Ibid., 186-188.      <sup>32</sup> Ibid., 188.

<sup>33</sup> John Hoskyns to John Aubrey, n.d. (1672), Oxford, Bodleian, Aubrey MS, 12, fol. 212; quoted in Hunter, John Aubrey, 113.

<sup>34</sup> Martin Lister, "An Ingenious Proposal for a new sort of Maps of Countrys, together with Tables of Sands and Clays, such chiefly as are found in the North Parts of England," Philosophical Transactions 14 (1684):739-746; parts of which are quoted in H. C. Darby, "Some Early Ideas on the Agricultural Regions of England, Agricultural History Review 2 (1954):31.

<sup>35</sup> Ibid., 33; also see Hunter, John Aubrey, 113, and Oxford, Bodleian, Aubrey MS, 1, fol. 14.

<sup>36</sup> E. G. R. Taylor, "Robert Hooke and the Cartographical Projects of the Late Seventeenth Century," Geographical Journal 90 (1937):532. A copy of the preliminary set of queries survives in Oxford, Bodleian, Aubrey MS, 4, fol. 243. Aubrey drafted these in county terms, and several of the questions closely resemble chapter headings in his "Natural Historie of Wiltshire." According

to a note in Aubrey's copy of the revised queries (*ibid.*, fol. 244), these were discussed at several meetings by Aubrey, Hoskyns, Hooke, and others.

<sup>37</sup> See Joseph Ewan and Nesta Ewan, John Banister and his "Natural History of Virginia, 1678-1692" (Urbana, 1970); Richard Blome, A Description of the Island of Jamaica (London, 1672); and, Thomas Glover, "An Account of Virginia, its scituation, temperature, productions, inhabitants . . . ,"Philosophical Transactions 11 (1676):623-636.

<sup>38</sup> R. W. Frantz, The English Traveller and the Movement of Ideas, 1660-1732 (Lincoln, 1934; reprint ed., New York, 1968).

<sup>39</sup> See Stimson, Scientists and Amateurs, and also Martha Ornstein, The Role of Scientific Societies in the Seventeenth Century, 3d. ed. (Chicago, 1938). Stimson and others have also examined the rapid rise of modern science in mid-seventeenth century England in relation to Puritanism and Protestantism.

<sup>40</sup> Hunter, John Aubrey, 70.

<sup>41</sup> Childrey, Natural Rarities, preface.

<sup>42</sup> Hunter, John Aubrey, 94.

<sup>43</sup> Joshua Childrey, "An Essay of Dr. John Wallis, exhibiting his Hypothesis about the Flux and Reflux of the Sea," Philosophical Transactions 1 (1666):263 (for Wallis, see the present study, chap. 8). The Childrey-Oldenburg correspondence is found in A. R. Hall and M. B. Hall, trans.

and eds., The Correspondence of Henry Oldenburg, 11 vols. (Madison, 1965-).

<sup>44</sup> Hunter, John Aubrey, 94.

<sup>45</sup> Childrey, Natural Rarities, 158, 128.

<sup>46</sup> Ibid., 69.      <sup>47</sup> Ibid., preface.

<sup>47</sup> Ibid.

<sup>48</sup> Ibid., quoted in Hunter, John Aubrey, 94.

<sup>49</sup> Childrey, Natural Rarities, preface, quoted in Hunter, John Aubrey, 94.

<sup>50</sup> Childrey's account of such "boisterous exercises" especially reminds one of some of the earlier chorographies.

<sup>51</sup> It is difficult to say exactly to what extent Childrey believed these accounts to be true.

<sup>52</sup> Joshua Childrey to Henry Oldenburg, 12 July 1669, and 29 March 1670, quoted in Hall, Henry Oldenburg, 6 (1969):110, 603, respectively.

<sup>53</sup> See Hunter, John Aubrey, 142; and, Joshua Childrey to Henry Oldenburg, 12 July 1669, quoted in Hall, Henry Oldenburg, 6:108.

<sup>54</sup> Henry Oldenburg to Joshua Childrey, 24 July 1669, quoted in ibid., 6:151, where Oldenburg informs Childrey that: "The increase of your affection to the Society, and your zeale of promoting their designe . . . was represented to them at their last meeting from your late letters, I received of you." Oldenburg, it may be noted, in 1671

published an English translation of Steno's 1669 treatise on geology, the Prodromus.

<sup>55</sup> Joshua Childrey to Henry Oldenburg, 14 April 1669, quoted in Hall, Henry Oldenburg, 5(1968):488-489.

<sup>56</sup> See Henry Oldenburg to Joshua Childrey, 6 April 1669, and 3 July 1669, quoted in ibid., 5:477, and 6:90, respectively; also see Joshua Childrey to Henry Oldenburg, 4 May 1669, and 12 July 1669, quoted in ibid., 5:513, and 6:107-108, respectively.

<sup>57</sup> Joshua Childrey to Henry Oldenburg, 12 July 1669, quoted in ibid., 6:108, and in Margaret Deacon, Scientists and the Sea, 1650-1900 (London and New York, 1971), 72.

<sup>58</sup> Ibid., 6:108-109. One of these notebooks, entitled "Chronologia Naturalis," incorporates "the time of all draughts, Comets, Earthquakes, etc."; the other one, "Geographia Naturalis," holds observations on the natural rarities of various other countries.

<sup>59</sup> See L. R. Cox, "British Palaeontology: A Retrospect and Survey," Proceedings of the Geologists' Association 67 (1956):209-210. Childrey's observations are also discussed in S. Smith, "Seventeenth Century Observations on Rocks [etc.]," Proceedings of the British Naturalists' Society 27 (1942):93-103.

<sup>60</sup> John Ray to John Aubrey, 27 October 1691, Oxford, Bodleian, Aubrey MS, fol. 13; London, BL, Lansdowne MS, 937, fol. 63.

<sup>61</sup>Anthony Powell, John Aubrey and His Friends, 3rd. ed., rev. (London, 1963), 106. Powell states that although Aubrey was involved with modern science, the interests of the Royal Society were not wholly his because his devotion to the past was stronger than his engagement with the present (page 11).

<sup>62</sup>On the question of whether Aubrey belongs to the "Moderns" or not see Hunter, John Aubrey, *passim*; G. M. Young, Last Essays (London, 1950), 251-252; Strachey, Portraits, 20-25; and, Oliver Lawson Dick, "Scholarship and Small Talk," The Listener, 20 November 1947, 904-905.

<sup>63</sup>Oxford, Bodleian, Aubrey MS, 1, fols. 23, 10.

<sup>64</sup>Hunter, John Aubrey, 119. It may be noted here that because Hunter's study of Aubrey's overall antiquarian and scientific efforts (although not necessarily his regional work) is quite comprehensive, many of the quotations taken directly from Aubrey's own works are also found, in whole or in part, in Hunter's book. In order to eliminate further overburdening this study with constant reference to Hunter the method here will be to cite the original only, except in cases where references to Hunter would especially prove to be useful.

<sup>65</sup>Ibid., 106-108. Hunter admits that Aubrey is representative of an age when a "mixture of mystical science with more modern views on other subjects" was the norm. However, he seems unable to accept Aubrey's simultaneous

acceptance of the New Learning and the old lore. Hunter writes that this combination of belief and rationalization is not surprising, since any other interpretation of his (Aubrey's) approach would presuppose a split in his intellectual attitudes (pages 198, 229).

<sup>66</sup> Anonymous, "The Oxford Cabinet: consisting of Engravings from original Pictures in the Ashmolean Museum, and other public and private Collections; with Biographical Anecdotes by John Aubrey, F.R.S. and other celebrated Writers," The Gentleman's Magazine 68 (1798):320. Throughout most of the eighteenth century Aubrey was known mainly for his only published work, the Miscellanies (London, 1696). His reputation began to improve as the archaeologists and other antiquaries began to take notice of his antiquarian efforts.

<sup>67</sup> John Aubrey, quoted in John Britton, ed., "The Natural History of Wiltshire," by John Aubrey (London, 1847), 11.

<sup>68</sup> Ibid., 5. Young, Last Essays, 256, states that Aubrey belongs to the "Moderns" because he exhibited "The disdain of the Augustan for the barbarism of the recent past."

<sup>69</sup> Robert G. Frank, Jr., "John Aubrey, F.R.S., John Lydall, and Science at Commonwealth Oxford," Notes and Records of the Royal Society of London 27 (1973):193-217. Also see Douglas McKie, "The Origins and Foundation of the

Royal Society of London," *ibid.*, 15 (1960):1-37; and, Ian Anderson, "The Royal Society and Gresham College 1660-1711," *ibid.*, 33 (1978):1-21.

<sup>70</sup> Frank, Jr., "Commonwealth Oxford," 201.

<sup>71</sup> Hunter, John Aubrey, 44. Hartlib recorded meeting Aubrey in these words: "The 2d of December 52 came to my house of his owne accord the first time Mr. John Aubrey. . . . He seemed to be a very witty man and a might<sup>h</sup> favourer and promoter of all Ingenious and Verulamian [Baconian] designs. . . ."; quoted in Frank, Jr., "Commonwealth Oxford," 205. Hunter notes that Hartlib was impressed by Aubrey's keen desire to relay to him and to the Society the ideas of the experimental scientists whom he knew (Hunter, John Aubrey, 57-59). This no doubt facilitated Aubrey's entry into the Society, and brings to mind Childrey's similar efforts at communicating information to the Society.

<sup>72</sup> Oxford, Bodleian, Aubrey MS, 3, fol. 11. Canon J. E. Jackson, "Wiltshire." The Topographical Collections of John Aubrey (London, 1862), viii, states that: "the truth is, that upon the more serious labours of Parochial History--the long investigation of evidences, the thoughtful comparison of them, and the drawing of correct conclusions from them--Aubrey was either unable or unwilling to enter."

<sup>73</sup> Oxford, Bodleian, Aubrey MS, 1, fol. 5. Aubrey, it seems, was the first to vociferously express this desire

for what would amount to, in effect, an examination of the entire country through natural histories.

<sup>74</sup> Ibid., 3, fol. 10. The manuscript of "North Division" (called on the outside of the original parchment "Hypomnemata Antiquaria A") is now Oxford, Bodleian, Aubrey MS, 3, and was printed by Jackson in his Topographical Collections; I have used both the manuscript and Jackson's edition. As it turned out, the others who were to be enlisted in this cooperative effort soon lost interest, so that the project vanished "in fumo Tabaci" (over their tobacco pipes), leaving Aubrey to go it alone.

<sup>75</sup> Ibid., 4. Even here, however, Aubrey appears to echo Bacon's (previously-quoted) statement that antiquities are "history defaced," in De Dignitate et Augmentis Scientiarum (London, 1623).

<sup>76</sup> Jackson, Topographical Collections, 4.

<sup>77</sup> Ibid., 14.

<sup>78</sup> Ibid., 58. Hunter, John Aubrey, 57, states that Aubrey "advocated a sort of natural theology, considering it 'a profound part of Religion to glorifie God in his Workes.'" This element will also be seen to be part of the work of future natural historians.

<sup>79</sup> Jackson, Topographical Collections, 407.

<sup>80</sup> Ibid., 241-242.

<sup>81</sup> Ibid., 16.

<sup>82</sup>This work is contained in Oxford, Bodleian, Aubrey MS, 4. It was enlarged, corrected, and published by the eighteenth-century antiquary Richard Rawlinson as "The Natural History and Antiquities of the County of Surrey," begun in the year 1673 by John Aubrey, 5 vols. (London, 1718). Apparently, Rawlinson did not publish this work as an aid to the better understanding of Aubrey's methodology, but rather as an up-to-date history of Surrey, using Aubrey's collections as an authoritative basis; see Brian Enright, "Richard Rawlinson and the Publication of Aubrey's Natural History and Antiquities of Surrey?," Surrey Archaeological Society Collections 54 (1955):126, 128.

<sup>83</sup>See Aubrey's Preface, found in the first volume of Rawlinson, Surrey.

<sup>84</sup>See Taylor, "Robert Hooke," 529-540; also see Ralph Hyde, "The Ogilby Legacy," Geographical Magazine 49 (1976):115-118.

<sup>85</sup>John Aubrey to Anthony à Wood, 11 October 1673, Oxford, Bodleian, Wood MS, F39, fol. 231.

<sup>86</sup>Similarly, Plot said of Ogilby that he is a "cunning Scott, and I must deale warily with him" (Robert Plot to Anthony à Wood, 12 August 1672, *ibid.*, fol. 181).

<sup>87</sup>Edward Lhuyd to John Aubrey, 12 December 1692, quoted in Rawlinson, Surrey, 1:4.

<sup>88</sup>Oxford, Bodleian, Aubrey MS, 4, fol. 244. As an example, Query Eight covered "Springs, Wells, Baths, Cold

and Hot Waters, Medicinal, Aluminous, Bituminous, Nitrous, Petrifying, etc."; other queries covered improvements in husbandry, manufacturers, and so on. Most of the natural observation of Surrey is contained in *ibid.*, fols. 235f., inserted after Aubrey had seen Plot's synopsis of his projected natural history.

<sup>89</sup> John Aubrey to Anthony à Wood, 24 October 1674, Oxford, Bodleian, Wood MS, F39, fol. 282.

<sup>90</sup> Oxford, Bodleian, Aubrey MS, 1, fol. 6. Plot's work is detailed in Chapter Eight.

<sup>91</sup> *Ibid.*, fols. 6-7.      <sup>92</sup> *Ibid.*, fol. 6.

<sup>93</sup> *Ibid.*

<sup>94</sup> See Hunter, John Aubrey, 138, 192.

<sup>95</sup> *Ibid.*, 101-102.

<sup>96</sup> Oxford, Bodleian, Aubrey MS, 2, fol. 115.

<sup>97</sup> *Ibid.*, 4, fol. 5.

<sup>98</sup> *Ibid.*, 1, fols. 9-11, 14, 19. By 1670 Aubrey could already claim that: "between S. Wales and the French Sea: I have taken an account of the severall earths, and the naturall observables in it, as the nature of the plants in the respective soyles, the nature of the cattle thereon feeding, and the nature of the Indiginae" (John Aubrey to Anthony à Wood, 17 November 1670, Oxford, Bodleian, Wood MS, F39, fol. 128).

<sup>99</sup> Lister, "An Ingenious Proposal for a new sort of Maps of Countrys, together with Tables of Sands and Clays,

such chiefly as are found in the North Parts of England," 739-740. It should be noted, as does Hunter in John Aubrey, 114n., that there is no reason to assume that Aubrey derived the idea of preparing land use maps from Lister, even if Britton, Wiltshire, 10, seems to believe that Aubrey did just that. It was not until 1815 that the first geological distribution map of England and Wales was made, and, as Young implies, Aubrey's desire for this type of map is evidence of his consciousness of the need of geology for a precise codification of data (Young, Last Essays, 251). Aubrey was also possibly aware, therefore, of the necessity of such codification for any scientific discipline.

<sup>100</sup>The quotation is taken from J. E. Jackson, "Memoir of John Aubrey, F.R.S.," The Wiltshire Archaeological and Natural History Magazine 4 (1858):94.

<sup>101</sup>Oxford, Bodleian, Aubrey MS, 1, fol. 9.

<sup>102</sup>See Britton, Wiltshire, 40-41.

<sup>103</sup>Ibid., 51. On at least one other occasion he verified that an ore deposit which he had found while strolling contained iron; he did this by submitting it to the local forge where it was examined (page 22).

<sup>104</sup>Ibid., 9. Cf. Oxford, Bodleian, Aubrey MS, 4, fol. 511.

<sup>105</sup>John Harris, Lexicon technicum, or an Universal English Dictionary of Arts and Sciences (London, 1704), "Fossils." The meaning of the word "fossil" itself is

derived from the Latin "fossiles" ("dug up"), taken from "fodere" ("to dig").

<sup>106</sup> Harris, *ibid.*, "Formed Stones," applies the term "formed or figured stones" to rocks that bear a close resemblance to the "external Figure and Shape of Muscles, Cockles, Periwinkles, and other shells."

<sup>107</sup> See, for example, Britton, Wiltshire, where Aubrey describes some "iron bulletts, as big as pistol bulletts" which were often ploughed up out of the earth; and which were also commented on by Childrey in Natural Rarities, 80.

<sup>108</sup> Britton, Wiltshire, 38.

<sup>109</sup> *Ibid.*, 34-35; also see Hunter, John Aubrey, 114, 117.

<sup>110</sup> Britton, Wiltshire, 18. Aubrey also noted "That North Wiltshire is very worme-woodish and more litigious than South Wilts" (*ibid.*, 12).

<sup>111</sup> Thomas Burnet, Telluris theoria Sacra (London, 1681); also see E. G. R. Taylor, "The Origin of Continents and Oceans: A Seventeenth Century Controversy," Geographical Journal 116 (1950):193-198. Many of the theorists based their argument for a flood on the evidence of fossilized marine life. It is interesting that Ray found Aubrey's account of Wiltshire satisfactory except for the latter's "Digression" on palaeontology; Ray thought that it challenged "the truth of the Letter of the Scripture" (John

Ray to John Aubrey, Oxford, Bodleian, Aubrey MS, 1, fol. 13).

<sup>112</sup> Britton, Wiltshire, 47. Into his manuscript Aubrey inserted from the London Gazette accounts of three earthquakes which took place in different parts of Italy in 1688 and 1690.

<sup>113</sup> Britton, Wiltshire, 47.

<sup>114</sup> Hunter, John Aubrey, 58-59.

<sup>115</sup> Britton, Wiltshire, 30. Although this particular idea, according to Aubrey, was first proposed about the year 1626 by Henry Briggs, Savilian Professor of Geometry at Oxford, Briggs was unsuccessful in presenting this "noble designe" because "Knowledge of this kind was not at all in fashion" (*ibid.*) until Aubrey's day. Two figures who were especially interested in such schemes were William Petty and Robert Hooke.

<sup>116</sup> *Ibid.*, 71.

<sup>117</sup> Thomas Fuller, History of the Worthies of England (London, 1662).

<sup>118</sup> Oxford, Bodleian, Aubrey MS, 2, fol. 90.

<sup>119</sup> Britton, Wiltshire, 97. H. M. Colvin, "Aubrey's Chronologia Architectonica," in Concerning Architecture, ed. Joan Summerson (London, 1968), 11, states that "To John Aubrey must go the credit for being the first to think historically about medieval English Architecture."

<sup>120</sup> See Robert W. T. Gunther, ed., Further Correspondence of John Ray (London, 1928), 171.

<sup>121</sup> John Ray to John Aubrey, 21 July 1691, London, BL, Egerton MS, 2231, fol. 11. Cf. John Ray to John Aubrey, 22 September 1691, Oxford, Bodleian, Aubrey MS, 13, fol. 174.

<sup>122</sup> John Britton, Memoir of John Aubrey, F.R.S. (London, 1845), 3-4. Daniel, Hundred and Fifty Years of Archaeology, 20, states that Aubrey "may perhaps with justice be called the first English field archaeologist of importance" and, in another place, The Idea of Prehistory (Baltimore, 1962), 79, he notes that field archaeology "began with exact observers and painstaking travelers to the past like John Aubrey and [Aubrey's colleague] Edward Lhuyd." Daniel regards Aubrey as the sort of field archaeologist who excavates sites "non-scientifically," but one who nevertheless meticulously examines the visible remains of the site. Hunter, John Aubrey, 13, 160, refers to the "Monumenta Britannica" as ". . . the first English book that can be called 'archaeological' in the modern sense. . . [marking] a real change of emphasis in antiquarian study, a shift away from the almost exclusive sources of Dugdale and his like."

<sup>123</sup> Walter Charleton, Chorea Gigantum (London, 1663); John Webb, Vindication of Stone-Heng Restored (London,

1665); also see R. J. C. Atkinson, Stonehenge (London, 1956), 186ff.

<sup>124</sup> See John Aubrey to Anthony à Wood, 8 September 1680, Oxford, Bodleian, Wood MS, F39, fol. 348. The chaotic arrangement of the manuscript of the "Monumenta Britannica," which now rests at the Bodleian (Bodleian, Aubrey MSS, TGC24, TGC25), typifies Aubrey's work.

<sup>125</sup> Oxford, Bodleian, Aubrey MS, TGC24, fol. 23. Aubrey returned yearly to Avebury to examine the site.

<sup>126</sup> Ibid., fol. 24. For more on this see Earl Melton Williams, "John Aubrey's Templa Druidum: Materials for an Edition" (Ph.D. dissertation, Florida State University, 1978), 4-5.

<sup>127</sup> See Jackson, Topographical Collections, 341.

<sup>128</sup> Daniel, Prehistory, 79. Aubrey attempted to publish his findings thirty years later, at about the same time as his study of the county of Wiltshire.

<sup>129</sup> Hunter, John Aubrey, 193, 202.

<sup>130</sup> Ibid., 192.

<sup>131</sup> Piggott, "Antiquarian Thought," 108, seems to think otherwise. He says that Aubrey applied to his material "the same classificatory method and presentation as his colleagues in the Royal Society were using in the natural sciences; the methods of Ray in botany or Llwyd [Lhuyd] in palaeontology." This is only true in a general sense.

## CHAPTER VIII

### THE FIRST REGIONAL NATURAL HISTORIANS: GERARD BOATE AND ROBERT PLOT

Natural Philosophy, next to God's Word, is the most Sovereign Antidote to expell the poison of superstition; and not only so, but also the most approved found to Nourish Faith.<sup>1</sup>

In Chapter Six it was shown that traditional forms of chorography had suffered a setback, largely the result of the disturbances associated with the English Civil War. In Chapter Seven, chorography was shown to have further declined in importance, adversely affected by the more frequent application of a new scientific approach to regional study. However, in the early days of the Royal Society the study of natural phenomena was still in its infancy, so that chorography was able yet to find a place in the work of investigators such as Childrey and Aubrey. In the present chapter the final outcome of this "struggle" (in the minds and work of the regional writers, at least) between chorography and natural history becomes apparent, with natural history emerging as the clear victor, and therefore assuming the role of the dominant mode in regional study.

The first productions that can legitimately claim the title of regional natural histories were based on the

studies of Gerard Boate and Robert Plot. Plot, in his two major publications, was the first to clearly demonstrate to Britons the superiority of the genre as it pertained to the description of a region, or place. Boate's Irelands Naturall History is, in fact, the earliest seventeenth-century English language specimen of a natural history; one which was not a translation from either Classical or continental literature. Boate, educated at Dutch schools where the development of regional natural history preceded similar activity in Britain, was therefore the first to bring the Classical outlook on natural history, as personified by Pliny, to bear upon regional study in Britain. Plot, meanwhile, was the first native Briton to fully incorporate Boate's rigidly systematic plan into his own studies.

Boate (1604-1650) is representative of one of the many ties between continental and British scholarship. Obtaining an M.D. degree at the University of Leyden in 1628, Boate was profoundly influenced by the various researches of the scientific community there. In medicine, for example, the clinical teaching which had been given there since 1630 proved an attraction to serious students. Men such as Otto Van Heurne, Albert Kyper, and later Franciscus de la Boe (Sylvius), ensured that the scientific education at Leyden was wide and excellent.<sup>2</sup> But of even more importance to this study is the fact that this

university, and the Dutch in general, were now beginning to attempt the systematic natural history of their equatorial colonies. Fieldwork was carried out notably in Brazil (from 1637 to 1644), and the results were published. Such early research into natural phenomena had its effect on Boate, and his work on Ireland was of a similar type and quality.<sup>3</sup>

In 1630 Boate left Holland and settled in London, where he found employment as Royal Physician. Boate the physician decided to become Boate the natural historian after he became a contributor to the fund under the English Act of Parliament of 1642 which admitted the Dutch to subscribe finances for the reduction of the Irish. Since repayment was to take the form of a grant of forfeited Irish lands, he decided to undertake the compilation of a work which would post information on the rewards to be derived from the various resources of Ireland (in the practical aim of augmenting the interest of "adventurers" in obtaining land in that country).

Boate, although appointed a doctor to the hospital at Dublin in 1649, wrote Irelands Naturall History before ever setting foot in Ireland. Materials for his study were furnished primarily by his brother Arnold and by some of the other Englishmen who had been ejected from the Irish lands which they had, until that time, occupied. Thus, even though Boate never personally investigated the region of which he writes, his book is based on the careful

observations of those who knew the area well.<sup>4</sup> At least one of his major informants, his brother, was also imbued with the emerging scientific attitude which placed so much importance on experiment and observation. According to his brother, Boate wrote the Naturall History in 1645.<sup>5</sup> It was between the time the manuscript was written and the time it was published that Gerard Boate eventually went to Ireland, dying there not long after his arrival.<sup>6</sup> Judging from a statement by his brother to Samuel Hartlib it seems that the manuscript had been, in the intervening period, mislaid and regarded as lost.<sup>7</sup> As it turned out, Gerard Boate's papers came into the hands of Hartlib, a Pole resident in London who, with the assent of Arnold Boate, proceeded to publish the Naturall History. "It is indeed revealing," as Hunter states, that this work "reflects Hartlib's practical preoccupation with husbandry and with mining iron and minerals, which he urged should be employed 'For the Common Good of Ireland, and more especially, for the benefit of the Adventurers and Planters therein'."<sup>8</sup> In this, Hartlib shared with the Boates the enthusiasm for the teaching of "the true experimental natural philosophy; as also whatever is most needful and noble in the Mathematics, viz. Arithmetic, Geometry, Cosmogrophy, Geography."<sup>9</sup> Hartlib was an important contributor to scientific education three hundred years before it was actually implemented; he advocated specialized agricultural instruction in An Essay for the

Advancement of Husbandry Learning (1651) and in some of his other works.<sup>10</sup> Hartlib viewed Boate's Naturall History as a scientifically-based study, useful towards his own promotion of Ireland as an opportune location for agricultural experiment:

I lookest also somewhat upon the hopefull appearance of replanting Ireland shortly, not only by the adventurers, but happily by the calling in of exiled Bohemians and other Protestants also, and happily by the invitation of some well affected out of the Low Countries, which to advance are thoughts suitable to your noble genius, and to further the settlement thereof, the Natural History of that countrie will not be unfit, but very subservient.<sup>II</sup>

The systematic plan around which Boate arranged his book involved the presentation of Ireland under a series of separate headings which covered topics such as climate, topography, minerals, waters, and so on. Genealogy and heraldry had virtually no place here. The Naturall History is divided into twenty-four chapters. The first chapter describes the situation and shape of Ireland and establishes the provinces, counties of the English Pale, and the principal cities and towns of the country. In this part of the book, at least, Boate's remarks are no more germane than anything found in the chorographies. For example, the town of Galloway is described simply as:

. . . the head-citie of the Province of Connaught, to be reckoned, as well for bigness and faireness, as for riches; for the streets are wide, and handsomely ordered, the houses for the most part built of free stone; and the inhabitants much addicted to trafick, doe greatly trade into other countries, especially, into

Spain, from whence they used to fetch great store of wines and other wares every year.<sup>12</sup>

A sizeable portion of the book (nearly one-third of the whole) is devoted to a consideration of the coastline of Ireland. Here Boate reveals himself to be a pioneer observer of the face of the earth long before studies in earth-sculpture--or geomorphology, as the science is today known--became common in regional description. What is especially remarkable is the vivid and detailed manner in which these features are presented to the reader, as if the author himself had made notes of these in the field, and then incorporated them into his work. Boate paid attention to the kind of physcial formations which either were given scant treatment by the chorographers, or which escaped their notice altogether. Principal promontories, "hilly sheares," capes, sandbanks, and off-shore rocks were all meticulously described and the havens, "for the most part so fair and large, that in this particular hardly any land in the whole world may be compared with this," are afforded "particular rehearsall."<sup>13</sup> Norden and other earlier seventeenth-century British chorographers had commented on the sea and its ravages, but not in as much detail. Norden, for example, merely noted that the Cornish rocks were weather-resistant enough to withstand shoreline erosion.<sup>14</sup> Owen, in passing, referred to the sea off Pembroke as "dealeinge so unkindely with this poore Countrey as that it doth not in any where

seeme to yield to the lande in anye parte, but in everye corner thereof eateth upp parte of the mayne."<sup>15</sup> Speed, meanwhile, took note of the Irish Sea, "whose rage with such vehemency beateth against her bankes, that it is thought and said, some quantity of the Land hath been swallowed up by those Seas."<sup>16</sup> The actual process involved in such erosion, however, awaited the serious investigation and speculation of the natural historians. Wave action was considered to be one culprit and Childrey added another, tidal scour, when he wrote of the Cornish coast:

The cause of the devouring of the Land by the sea, I conceive to be its being a Promontory lying open to the merciless stormes and weather, and withall, lying in a place where two currents meet and part; I mean the Tide as it comes in, and returns out of the Sleeve, or narroe Seas, and the Irish Seas, and Seavern.<sup>17</sup>

With Boate and Childrey leading the way other scientists soon directed their attention to the relationship betwen sea and shore, a concern not totally unexpected among a seafaring folk. John Wallis, for one, in upholding an earlier theory which claimed that islands were not part of the original Creation--for "Almighty God the cause and conductor of nature, in creating the world did leave no parte of his woork imperfect or broken"--investigated how a supposed one-time land bridge between England and France had been breached solely by tidal action.<sup>18</sup> In an elaborate argument Wallis went on to indicate how Romney Marsh, the Low Countries, and the plains surrounding the Thames Estuary

had all been the result of tidal scour which was accompanied by erosive debris worn from the neighbouring isthmus. Such a process fitted in nicely with the concept, then current, of a state of equilibrium among the natural processes. Whether true or not, the importance here is that such features of earth history were gaining the attention of more and more natural historians.

Although some of Boate's information on the coastline may have been derived from charts and pilot books, which in itself would have been an innovative step, most of it probably came from his friends and acquaintances among the sailors of the United Provinces, since in his day a considerable portion of the overseas trade of England was conducted by Dutch bottoms. On occasion Boate found it useful to search the literary sources for similar information, perhaps utilizing John Speed's maps for locating anchorages, or by briefly quoting Speed, Giraldus, and Camden in his attempt to emphasize the tempestuous nature of the Irish Sea.<sup>19</sup> He is not as credulous as were many of the chorographers, and did not therefore take everything he found in the literary sources at their face-value; he scoffs, for example, at the account of some strange fluctuations in the ebb and flow of tides, made by Giraldus.<sup>20</sup> Because Boate's description of the coastline takes up so much of the book, it is worth quoting a typical entry:

The next great Harbour upon this coast . . . is that off Knocfergus, being a great wide Bay, the which in its mouth, betwixt the Southern and the Northern point, is no less than ten or twelve miles broad, growing narrower by degrees, the farther it goeth into the land, the which it doth for the space of fifteen miles, as far as to the Town of Belfast, where a little river called Lagon (not portable but of small boates) falleth into this Harbour. In this Bay is a reasonable good Road before the Town of Knockfergus (seated about nine miles within the land), where it is good anchoring in three fathoms, and three and a halfe. On the North Side of the Bay, somewhat neer the sea, under a Castle called Mouse-hill, is a sandbay,<sup>21</sup> where it is good anchoring for all sorts of ships. . . .

Exact description of this kind was extended to the inland areas of the country. Boate, after discussing springs, fountains, rivers, lakes, and mountains, displays an abiding interest in agriculture. The endless subject matters of agricultural life are fervently investigated, including the nature and fruitfulness of the soil, its suitability for tillage or pasture, the advantages of improving the land through the use of assorted types of manures (limes, dung, seasand), the usage of marle, and so on. Generally speaking, Boate goes into far greater detail than do the chorographers when it comes to agriculture. We learn of the reasons why lands differ in richness:

. . . the best and richest soil, if but half a foot or a foot deep, and if lying upon a stiff clay or hard stone, is not so fertile, as a leaner soil of greater depth, and . . . [lying] upon sand and gravel, through which the superfluous moisture may descend, and not standing still, as upon the clay and stone, make cold the roots of the grass, or corn, and so hurt the whole.<sup>22</sup>

After exhibiting a substantial amount of historical and classical knowledge, Boate came to the conclusion that on

the whole Ireland should be a land of pasture rather than tillage, because the country "hath it a more natural aptness for grass."

The heaths and bogs seem to have exerted a deep fascination for Boate, and he endeavoured to classify them according to a system of his own. There were the wet bogs (called "Moones" in Irish), watery bogs, red, or dry bogs, miry bogs, grassy bogs, and finally, hassocky bogs. He believed most of these to be of fairly recent origin and simply required proper drainage in order to convert them into land for tillage or pasture. The English inhabitants, Boate contends, are experts in this field, able to reap great profits by draining the bogs; but he has only caustic remarks on the negligence of the Irish, who permitted their good ground to become boggy.<sup>23</sup> In speculating about the origins of the bogs, Boate continued:

Very few of the wet-bogs in Ireland are such by any naturall property, or primitive constitution, but through the superfluous moysture that in length of time hath been gathered therein, whether it have its originall within the place it self, or be come thither from without. The first of these two cuses taketh place in the most part of the Grassie-bogs, which ordinarily are occasioned by Springs; the which arising in great number out of some parcel of ground, and finding no issue, do by degrers soak through, and bring it to that rottenness and springiness, which nevertheless is not a little increased through the rain water comming to that of the Springs.<sup>24</sup>

This fascination--almost obsession--with anything to do with water is clearly perceptible in his account of the inland drainage system. The lakes (loughs) are classified

according to size, i.e., "great," "middle-sort," "least," and the islands situated in them also command considerable attention.<sup>25</sup> In this section we are also treated to an interesting example of the author's determination to discredit wild stories. He investigated the belief, long-established throughout Christendom, that the "Suburbs of Purgatorie" were located in a cave situated on an island in Lough-Dug. He tells of the efforts of the Earl of Cork and the Viscount of Elie who, in the last two years of the reign of James I, "sent some persons of quality to the place, to inquire exactly the truth of the whole matter." These investigators, "descending down to the very Purgatorie and Hell," found that this "miraculous and fearfull cave" was "but a little cell, digged or hewen out of the Rockie ground, without any windowes or holes. . . ."<sup>26</sup> Boate was of the opinion that this cell--which the good Earl and Viscount caused to be demolished--was once of use to the devilish purposes of the friars, whose charges, upon fasting, were prone to witnessing macabre apparitions in the depths of the cell.

Boate also attacked the alleged property of Lough-Neaugh to turn wood into stone. In this case he obtained the information from his brother, who had investigated the matter, and who lived near the site but had never come to speak with anyone witnessing such a transformation. Nevertheless, Arnold Boate affirmed "that here and there upon the

borders of that lough are found little stones . . . [which] seem to be nothing else but wood, and by every one are taken for such, until one comes to touch and handle them. . . ."<sup>27</sup> The development of the science of geology during the nineteenth century made possible the formulation of an explanation for the presence of the petrified wood. The silicified woods found on the shores of the lough are now known to be washed out of their beds by the wave-movement of the lough, and deposited on its shores.

In dealing with the forests and woodlands of Ireland, Boate details the destruction of the woods, comparing the present scene with that described by Giraldus.<sup>28</sup> The contemporary scarcity of wood for fuel and of timber for construction is not surprising, he notes, when one considers that from Dublin to Tredagh (Drogheda), Dundalk, the Newry, and as far as Dromore, there are no woods worth speaking of. Only in the west and south are there still some large woods extant in the counties of Kerry and Tipperary, this despite the destruction wrought by the English. Boate ranges himself with those who argue that the obliteration of the woods was due to economic factors rather than war, the main cause being the use of wood as a source of the charcoal used in iron-smelting, an industry begun by the "New English" (i.e., those who had settled in Ireland since the end of the Elizabethan wars). "The trees and woods having been so much destroyed in Ireland, as

heretofore we have shewed . . . the inhabitants are necessitated to make use of other fuel." Boate described these other fuels, which included turf and sea-coal, and in so doing revealed that in the eastern counties of Ireland, at least, fuel supply had become an acute question of everyday life; a fact important to the economic or social historian. In a similar fashion, Boate "has an analysis of the factors governing the economic location of an iron industry which is quite in the tradition of modern geography."<sup>29</sup>

In his section on minerals and mines Boate was, naturally, restricted to the knowledge available in his day. He thought it unlikely that there should be any gold mines in Ireland, but does provide one of the few recorded cases of the occurrence of this metal in Ireland. He comments on the information given him by a credible person, whose colleague had assured him "that out of a certain rivulet in the county of Nether-Tyrone, called Miola . . . he had gathered about one dram of pure gold," thus concluding "that in the aforesaid [Slew-galen] mountains rich gold mines do lye hidden."<sup>30</sup> But Boate's main interest lies in the iron mines.<sup>31</sup> He identifies the various sorts of iron ore found in Ireland as bog, rock, pin, white, and shell ore, and in the tradition of Owen goes on to describe the various outcrops of rock which contained these ores. Silver and lead ores also have their place in the text, as do building

and ornamental stones and the glass industry. Boate's account of the surface deposits is among the first detailing this branch of geology. He recognized a series of surface deposits, which today are known to have been laid down by the latest ice age. The rest of the Naturall History contains the same kind of discussion which one finds in the natural histories written later in the century: observations on the temperature, the quality of the air, snow, hail, hoarfrost, dew, thunder, lightning, winds, earthquakes, and other natural phenomena.

E. G. R. Taylor regards Boate's book as "a Regional Geography of quite exceptional merit," and justifiably so.<sup>32</sup> Up until the time this work was published the description of Ireland languished in the same type of chorographic literature which, as we have seen, was common to England. The objective, one might even say "Modern," outlook possessed by Boate proved to be a great asset in the writing of a book of the type of the Naturall History. It was spared the geography of Ptolemy and avoided an introspective essay replete with references to Classical authors, or the heavy pedantry normally associated with the mere listing of family pedigrees. Boate went far, then, towards remedying some of the "chief defects for which the Truths of Naturall Philosophie and the products thereof . . . are so imperfectly known."<sup>33</sup>

Boate's work receives due recognition today, but relatively few scholars in the third quarter of the seventeenth century recognized its full value towards regional study. Part of this obscurity is due to the fact that his study was issued during the period when chorography was in its waning stages, and yet considerably before the activities of the Royal Society helped to renew an interest in regional description. Therefore, when in 1677 Robert Plot published his first regional study, The Natural History of Oxfordshire, he received the type of accolade that should have been at least partly reserved for his Dutch predecessor. Perhaps this situation is more readily understandable when one considers that Plot, being an Englishmen, and trained within the mainstream of British scientific activity, was considered a more suitable representative of native regional study by his fellow English scholars. Also, to give credit where it is due, Plot, while building upon the pioneering work of Boate, Aubrey, and others, was in fact able to further develop new methodologies and expand the existing ones.

Plot (1640-1696) has deservedly been called the "genial father of County Natural Histories in Britain" for his work in this field.<sup>34</sup> Like his friend John Aubrey, Plot was interested in promoting useful knowledge, emphasizing how his own work would contribute "to the great benefit of Trade, and advantage of the People."<sup>35</sup> And, also like

Aubrey, he was interested in the supernatural and therefore he included accounts of occult phenomena in his natural histories.<sup>36</sup> Oxfordshire, issued as it was after a lengthy period when natural history was still experiencing some difficulty in firmly superseding the chorographic element in the field of regional study, was chiefly responsible for popularizing regional natural history. It was deliberately intended by its author to supplement the "Civil and Geographicall Historys" which up to that time still managed to exert an influence on the field as a whole.<sup>37</sup>

Plot, as Wood tells us, was "born of a genteel family at Borden near to Stillingbourn in Kent," the only son of Robert Plot.<sup>38</sup> Educated at the Free School at Wye, Kent, he matriculated at Magdalen Hall, Oxford, in July, 1658, where he later became Vice-Principal and Tutor. He graduated B.A. in 1661, M.A. in 1664, and B.C.L. in 1671. About the year 1676 he left Magdalen and entered as a commoner at University College, where he resided until his marriage in 1690. A firm believer in Bacon's dictum that natural history "is used either for the sake of the knowledge of the particular things which it contains, or as the primary material of philosophy and the stuff and subject-matter of true induction," Plot intended to make a personal survey of the whole of England and Wales in order to compile their natural history.<sup>39</sup> Plot recorded his intention of making such a tour in an interesting letter (c.

1673) to Dr. John Fell, Dean of Christ Church. It is here that Plot proposed to follow the examples of Camden and Leland:

As often as I have reflected on the very great and no less commendable Service done to the Common-Wealth of Learning at home, and the Reputation of the Nation abroad, first by the indefatigable Travels of John Leland, and upon his Foundation a Superstructure added by William Camden Clarentieulx, and others; and that notwithstanding their great Industry not only considerable Additions might be made to whatever they have touch'd on, but a fair new Building erected (altogether as much to the Honour of the Nation) out of Materials they made little or no use of: so often I have thought with my selfe, provided I be judg'd a fit Person, the Design agreeable, and the Encouragement proportionable, that I might also in some measure deserve of my Country, if I would reassume their Labours, and once more take a journey at least through England and Wales, to make a strict search, and give a faithful Account to such as shall encourage me of all such Things (worthy notice) which they have wholly pass'd by, or but imperfectly mention'd.<sup>40</sup>

Besides building on the work of Leland and Camden, Plot mentions, in his letter to Fell, his intention of rectifying the defects he found in Sir Henry Spelman's "An Interpretation of Villare Anglicanum."<sup>41</sup> This work was a gazetteer, according to its Preface (dated 31 October, 1687), "made by the appointment of Sir Henry Spelman, out of Speed's Mappes."<sup>42</sup> He also hoped to add to Weever's Ancient Funerall Monuments information "on all the other Dioceses in the same manner as he [Weever] had done the Dioceses of Canterbury, Rochester, London and Norwich."<sup>43</sup> Thus Plot indicated that he believed that one of the concerns of an antiquary, or of a natural historian, was the examination of

inscriptions and similar sources. Conceiving his enterprise as a serious scientific project, however, Plot held it to be a history of "Natural Bodys, and manual Arts, found or practised within the Kingdom of England and Dominion of Wales."<sup>44</sup> In one sense, it may be said that in his envisaging a series of county studies covering all the counties, he emulated Leland, Camden, and Norden, the major difference being that the content of Plot's volumes was natural history rather than chorography. Plot sought a Royal Commission to travel through all parts of the country, similar to the one held by Leland. He also armed himself with the following testimonial, signed by the principal dignitaries of Oxford:

These are to signifye to all whom it may concern that Robert Plott, Doctor of Laws, and now of Magdalen Hall in the University of Oxford, being studious to make search after the Rarities both of Nature and Arts afforded in the Kingdome for the Information of the Curious and in order to an Historical account of the same, by him promised hereof to be given, Wee whose Names are subscribed doe approve of that his ingenious undertaking and doe recommend him to the Courteous furtherance of such persons of whom he shall have occasion to make enquiry in the procedure of that Affair.<sup>45</sup>

In his work Plot relied on printed sheets of queries such as those utilized a decade earlier by the Georgical Committee as it regarded agriculture in different regions, which he supplemented with his own. It is little known that Plot put his name to two separate sets of these, both of

which were even more systematic than those drafted by Ogilby.<sup>46</sup>

Aubrey was one of the first to collaborate with Plot, sending him the results of all his years of collecting material on Surrey, Wiltshire, and several other shires.<sup>47</sup>

Plot quoted "Mr. Aubrey's notes" in his Oxfordshire, and Aubrey kept on providing additional information for years to come.<sup>48</sup> For example, Aubrey transcribed and then forwarded to Plot in 1684 the notes that he had made on the flyleaves of his copy of Oxfordshire.<sup>49</sup> It is unfortunate that Plot was apparently unwilling to fully acknowledge his debt to Aubrey. Despite his reference to "Mr. Aubrey's notes," he generally downplayed Aubrey's role, as is evident in one of his letters to Aubrey, where he mentions finding "many things . . . much to my purpose" in one of Aubrey's works, but added that this did not apply to his study of

Oxfordshire.<sup>50</sup> This simply may have been, however, a natural reaction on the part of Plot to Aubrey's growing mistrust of the use of his (Aubrey's) materials by his colleagues. As Hunter indicates, Aubrey may also have been developing an intense pride about the value of his own work.<sup>51</sup> It is also possible that Plot merely did not desire to make the extent of his debt--to a man floating on the fringes of Oxford's intellectual community--revealed to the whole world. Whatever the case, the example of Aubrey's work did in fact guide Plot to a considerable degree. This

is especially true where Oxfordshire is concerned, since this book, begun in 1674, was intended as a demonstration of methods that Plot had hoped to apply to the entire country.

From Plot's notebooks one can gain a clear picture of exactly how he went about his self-appointed task. He commenced his fieldwork in the Parish of Cropredy and then, riding on horseback along the lanes or perambulating the fields on foot, he visited the northern parishes first. He next studied the countryside between the rivers Evenlode and Thames during the summer of 1674, completing the fieldwork the following summer when he toured the western sector of Oxfordshire beyond the Evenlode and then the eastern sector beyond the Thames. In each case he used the rivers as dividers, portioning off the shire into five distinctive tracts. This method differed from that used by many of the chorographers in the past who, as we have seen, arranged their narratives so that they followed the rivers and described the places in sequence along them. Plot was only interested in the river system in so far as it marked off conveniently-sized portions of the county.

In the address which prefaced Oxfordshire Plot advised his readers that this work would aid in the "advancement of a sort of Learning so much neglected in England [i.e., Nature or Arts]," and in the promotion of trade.<sup>52</sup> Later in the book he claimed that in the account of the natural things of Oxfordshire he "treated only of

such as eminently . . . were some way or other useful to Man."<sup>53</sup> The opening address also contains a commentary on the county map which Plot had researched and drawn up. Its accuracy, he maintained, "far exceeds any we had before," especially because "it contains all the Market Towns, and many Parishes omitted by Saxton, Speed, etc.," and since "it shews also the Villages, distinguished by a different Mark and Character, and the Houses of the Nobility and Gentry, and others . . . and all these with their Bearings to one another, according to the Compass."<sup>54</sup> However, the map was "not so perfect" because Plot could not provide distances that were "Mathematically exact." Yet he was confident that all his placings were fairly accurate. The system of house reference seemed to have considerable priority on the map, perhaps so as to compensate for the usual disdain of the natural historian for mere genealogy. "This Map is so contrived," he proudly pointed out, "that a foreigner as well as English-man . . . may with ease find out who are the Owners of most of them. . . . And all this done by Figures . . . placed in Order over the Arms in the limb of the Map." He also saw the border of arms as not only useful as a reference to owners of houses depicted on the map, but as a required ornament and as an "Encouragement to the Gentry to keep their seats."

It is certain from other features in the Legend that Plot intended this volume as a forerunner to a county series; the symbols for ancient ways, fortifications, and sites of religious houses were therefore designed to apply to "all following maps as well as this." A village, for Plot, consisted of an assembly of more than ten dwellings, "under which number I seldom think them worth notice." Plot's rather aloof attitude is reflected in his plan for the incorporation of corrections. "Gentry," he serves notice, were expected to bring details of mistakes in the map directly "to the Porter or one of the Keepers of the Bodleyan Library, who will be ready to receive them."<sup>55</sup>

Throughout his book Plot concentrated his attention on natural features or practical problems, so that there was no danger that he would become muddled in a matrix of genealogy and pedigrees. His method was to survey the county in each of its natural elements, thereby allowing the natural divisions to show up of their own accord. Or, as he put it:

I shall consider, first, Natural Things, such as . . . Animals, Plants, and the universal furniture of the World. Secondly, her [the county's] extravagancies and defects, occasioned either by the exuberancy of matter, or obstinacy of impediments, as in monsters. And then lastly, as she is restrained, forced, fashioned, or determined, by Artificial Operations. All which, without absurdity, may fall under the general notion of a Natural History, Things of Art (as the Lord Bacon well observeth) not differing from those of nature in form and essence, but in the efficient only; Man having no power over Nature, but in her matter and motion, i.e., to put together, separate, or fashion

natural Bodies, and sometimes to alert their ordinary course.

Yet neither shall I so strictly tie my self up to this method, but that I shall handle the two first, viz. The Several Species of natural things, and the errors of Nature in those respective species, together; and the things Artificial in the end apart: method equally begetting iterations and prolixity, where it is observed too much, as where not at all. And these I intend to deliver as succinctly as may be, in a plain, easie, unartificial stile. . . .<sup>56</sup>

This method, it will be observed, differed considerably from the short general description of a region by a chorographer, which usually prefaced a particular study of its hundreds or parishes, and which allowed the contrast between various kinds of land (or soils) to appear only by selection. The method he followed in Oxfordshire was the same he employed later in Staffordshire because, as these two books were to form part of a series, he adopted a consistent treatment from the start. The chapter headings are: I. "Of the Heavens and Air"; II. "Of the Waters"; III. "Of the Earths"; IV. "Of Stones"; V. "Of Formed Stones"; VI. "Of Plants"; VII. "Of Brutes"; VIII. "Of Men and Women"; IX. "Of Arts"; and X. "Of Antiquities." (Because of the close similarity of the two books, only one, Staffordshire, will be examined in any detail here).

The publication of Oxfordshire was enthusiastically greeted by the learned gentlemen of the day, and facilitated Plot's entry into the Royal Society the same year. It was also among the Fellows of the Society that he circulated his enquiries. Even previous to this, however, he had been

actively involved in the Society's intellectual orbit, engaging himself in the discussion of problems concerning husbandry, occasionally meeting Robert Hooke in the coffee houses of London, or contributing scientific communications to the Society (which were as often as not published in the Philosophical Transactions.)<sup>57</sup> In May, 1683, he presented Oxfordshire to the Royal Society, and by the end of November he was elected its Secretary.<sup>58</sup> He also presided over the Philosophical Society of Oxford, of which he had been a principal founder in 1682, and directed its experiments while occupying a position roughly comparable to that of Hooke in the Royal Society. During the period of his Secretaryship he made many donations to the repositories of the organizations in which he proudly served and, while adding to his own collection of minerals (with the view of securing a representative series for the Oxford museum), he also made certain that a parallel series be made available for study at Gresham College.<sup>59</sup> In 1683 he obtained the post of Editor of the Philosophical Transactions, which he held from No. 143 (1683) to No. 166 (1684) inclusive. All of these activities, of course, kept him in direct contact with many of the leading British experimentalists.

The year 1683 appears to have been one of considerable importance for Plot, for it was then that he also was appointed the first Custos of Elias Ashmole's new museum at Oxford; and, in the same year, he was appointed

Professor of Chemistry. It is not unexpected, therefore, that the pressures imposed upon him by the duties of his various other positions forced him to relinquish his Secretaryship of the Royal Society in 1684. This left him free to devote more time to setting up the Ashmolean Museum, as the new institution at Oxford came to be known, and to equipping a chemical laboratory in its basement.<sup>60</sup>

As Professor of Chemistry, Plot prepared several works on the subject. Among these works there are plenty of examples of Plot's interest in the speculative and philosophical side of science.<sup>61</sup> But he apparently kept up his interest in alchemy, i.e., an interest in the preparation of transcendental medicines and substances. We are told, in an article on Plot's alchemical concerns, that he had devoted much attention to "mysterious liquors which he regarded as fundamental to transcendental medicine and alchemy," and that there is evidence that in or about 1677 he set up in partnership with others to prepare and sell "chymical medicines"; furthermore, Plot later came across a certain secret which also involved his attempt "to make an agreement with some [unknown] person . . . whereby, in return for the knowledge of the secret . . . he was to take the practical steps necessary for the preparation of the Elixir, the Alkahest, and the Grand Arcanum, and to share the proceeds with Plot."<sup>62</sup> So, scientist though he was, he nevertheless exhibited, as Gough explains: "the frequent

appearances of want of judgement [which] must be ascribed in great measure to the credulous temper of the age he lived in."<sup>63</sup>

Throughout this period Plot acted as a major link between the two scientific societies in which he served.<sup>64</sup> Meanwhile, in 1684, he began to visit Staffordshire at the invitation of Walter Chetwynd of Ingestre, so it is said, with the view of preparing a natural history of that county.<sup>65</sup> Plot began by issuing his second set of queries in 1679, but because of the burdensome workload which his employments entailed, and since the required fieldwork was not in any case an easy chore, Staffordshire did not appear until 1686, at about the time natural history began to flourish elsewhere as well; in 1683, for example, the Philosophical Transactions advertised a regional natural history of Switzerland, compiled by Jacob Wagner, which was also intended "to promote a true Experimental Philosophy."<sup>66</sup> It seems that Plot's tour of Staffordshire was begun in May of 1680, and the material collected within about a year, "about which time the book will be put to the press." However, at one point in Staffordshire (page 219), in reference to some "deterrations, or falls of the Earth," Plot mentions the current year to be 1684, thus indicating the delay in bringing the work to print.<sup>67</sup> Like Oxfordshire, it contains an elaborate map of the county executed in Plot's hand. Although Plot was not by

profession a mapmaker, this particular production of his merits due attention because it established the model for future maps down to the latter part of the eighteenth century, going much further than, say, Norden in the use of conventional signs to distinguish parishes, villages, houses, etc. Also, the relation of the county to the degrees of latitude is indicated for the first time, with the fifty-third degree being drawn across the map and the margin being divided into minutes.<sup>68</sup>

In Staffordshire Plot's method is the same one he used in his first regional study, except that here he involved himself "in the determination of more difficult Questions." His first chapter, "Of the Heavens and Air," is concerned with natural phenomena, especially with unusual displays such as rainbows, solar haloes, winterlightning, strange echoes, etc., usually with the view of rationally explaining such phenomena in non-supernatural terms. Like Thomas Hill a century earlier, Plot took an interest in prodigious accounts of unusual objects seen falling together with the rain (accounts transmitted by the Ancients, who are individually cited by the author). But unlike Hill he was quick to point out, for example, that frogs seen falling from the sky "may be either blowne from the tops of Mountains, or drawn up with the vapours . . . and be brought to perfection in the Clouds, and discharged thence in

Showers."<sup>69</sup> Plot was able, in other words, to separate fact from fancy, in most instances at least.

The second chapter, "Of the Waters," embodied a systematic discourse on the origin of springwater while utilizing particular local instances as a basis for several innovative general arguments.<sup>70</sup> In so doing Plot asked his readers:

Whether the Springs are supplyed with that great Expence of water, that we see they dayly vent, from Rains, Mists, Dews, Snows, Haile etc. received into the Springy tops of Mountains and sent forth again at the feet of them, or somewhere in their declivities; or whether they are furnish't from the Sea through subterraneous passages, as from the great Treasury of the waters, and are return'd again thither by the Rindles, Brooks, and Rivers? Or in short, whether they have their Origine from the Sea by a superior Circulation through the Clouds; or by an inferior, through Channels in the bowells of the Earth? or from both?<sup>71</sup>

Then Plot set out a detailed classification of springs (which included a discussion of "periodical waters," such as those of certain major rivers, e.g., the Niger, Ganges, Rio de la Plata), at first presenting in a deliberate manner the (correct) theory that the ultimate source of springwater is rainfall. But as he continued, dissecting the hypotheses of other writers on this subject, his original theory was unfortunately discarded as he convinced himself that most springs depend on the sea for their supply, on the basis of an "inferior circulation." He nevertheless was able to support his revised viewpoint with several persuasive scientific arguments.<sup>72</sup>

A good portion of Chapter Three is taken up with soils in relation to agriculture, and with the use of clays and marls in the making of bricks and pottery. Plot distinguished between three primary physical divisions of the county, thus building upon a similar distinction made in outline only by some of the earlier chorographers, e.g., Sampson Erdeswicke. There is the moorland and the Pennine fringe, lying between the Trent and the Dove; the fertile agricultural area to the west and the south of the Trent, which produced a great variety of crops and a better breed of sheep; and the woodlands, or middle part of the county, a large supplier of quality timber, and also a dairy region. Approximately one-third of Staffordshire was considered by Plot to be unproductive and barren ground. He was obviously aware of the changed relationship among these agrarian regions, one due to recent improvement. For the student of agricultural history, therefore, Staffordshire is an invaluable source. Plot's commentary focused on the transition then taking place from the common management of open fields and commons to improved farming practised in enclosed fields. He suggested that where enclosure had not been the practice the clay lands were managed under a three-course rotation, and possibly on the basis of three common arable fields. On poorer soils, common land may have been farmed on a system approximating an infield-outfield system, with

occasional reclamation of waste land for supplementary arable.

From a general description of agriculture Plot embarked on an investigation of the constitution of the particular soil-types, noticing the effects of denudation and deposition:

It is also likely, if not certain, that all valleys rise by atterration i.e. by Earth continually brought down from the tops of mountains by rains and Snows, whence all Mountains are become lower than they were formerly, and the Valleys risen higher; So that in time all the Mountains (except the rocky, such as the Rockes in the Moorelands) will by great shoots of rain <sup>73</sup> be quite washed away, and the whole earth levelled. . . .

The condition of the roads had not apparently changed significantly since the time that the chorographers had first complained about their poor condition. Thomas Habington, for example, had described Worcester ways as singularly bad due to the character of the local soils and the flooding of the Avon. Plot, meanwhile, attributed the deteriorating state of the roads about Sedgley, Wednesbury and Dudley to the carriage of heavy loads of coal.<sup>74</sup> The remainder of the chapter dealt with coal.<sup>75</sup> First, Plot provided a list of the items which require consideration:

Whereof there being great plenty of diverse kinds found here, I shall first give an account of the severall species of them. 2. of their dipping, bassetting or cropping, and their Rows or Streeks, 3. of the measures or floores there are of them, their partings or Lamings, with the terms of Art for them in different places, 4. of the damps that attend them, by what means they seem to be occasioned, and how cured, 5. how the coal pits come so many of them to take fire, and 6. of their several ways of finding and working them. . . .<sup>76</sup>

Plot's stratigraphical account of the coal measures transcended the geological outline of Owen's or even Aubrey's work, and here we find some of the first explicit statements of certain fundamental conceptions, together with the terminology, of structural geology.<sup>77</sup> He described the "profundity" (thickness) of beds, their succession, and gave examples of detailed sequences with measured thicknesses at different locations, thus presenting one of the first (if not the first) tables containing the core-material of stratigraphical data. At Wednesbury, for example, he established the following divisions, with their respective depths and different denominations, for the layer of upper coal:

1. The top or roof floor, 4 foot thick.
2. The overflipper floor, 2 foot.
3. The gayfloor, 2 foot.
4. The Lam-floor, 2 foot.
5. The Kit floor, 1 foot thick.
6. The benchfloor, 2 foot and 1/2.
7. The springfloor, 1 foot.
8. The Lower flipper Floor, 2 foot and 1/2. . . .<sup>78</sup>

The final few pages of this section centre on the practical search for coal.

The chapter which follows, "Of Stones," takes up a subject long inherent it seems in regional study, namely the use of lime for fertilizer. But it also contains a rather amusing anecdote concerning Plot's experiment on the variation of the compass needle. While out in the field and finding that his compass reading was wide of the mark by six

degrees, Plot "could not imagine how this should come to pass otherwise than by the Magnet, unless by some old Armour that might be buried hereabout in the late civil War": in truth, the problem was most likely the result of the magnetic property of local deposits of magnetite, an ore which is now known to exist in abundance in Staffordshire.<sup>79</sup>

But it is for the content of Chapter Five, "Of Formed Stones," that Plot's book is best known. (By "Formed Stones" Plot meant, in effect, mineral crystals and genuine fossils). He began with objects supposedly having some connection with the heavens, e.g., "selenites" and "asteriae," working his way downwards through the "inferior heaven" (those objects generated in the air amongst the clouds), and the waters, to the earth below. This led him in some instances to indiscriminately disseminate descriptions of objects that obviously call for treatment as a class; but this method conforms to his handling of other topics throughout the book.

One of his most important contributions lies in the field of palaeontology, specifically in his exact descriptions and illustrations of fossils. Oxfordshire is notable for its excellent illustrations of fossils from the Jurassic and Cretaceous periods. Similarly, in Staffordshire Plot described and illustrated, for the first time, some of the more familiar shells (brachiopods) taken from the Carboniferous and Silurian limestones.<sup>80</sup> Despite this, some of

his views were of dubious value, at least as far as his central proposition regarding the origin of fossils is concerned.<sup>81</sup> "The great Question now so much controverted in the world" had already been established in Oxfordshire:

Whether the Stones we find in the forms of Shellfish, be Lapides sui generis, naturally produced by some extraordinary plastic virtue latent in the earth or Quarries where they are found? Or whether they rather owe their form and foundation to the shells of the Fishes they represent, brought the places where they are now found by a Deluge, Earthquake, or some other such means, and there being filled with mud, clay, and petrifying juices, have in the tract of time been turned into stones, as we now find them, still retaining the same shape in the whole, with the same lineations, sutures, eminences, cavities, orifices, points that they had whil'st they were shells?<sup>82</sup>

Plot rejected the idea that the fossils "owed their form and figure to the shells of the Fishes they represent" and took the former view, leaning "rather to the opinion of Mr. Lister, that they are Lapides . . . ,"<sup>83</sup> disagreeing therefore with Hooke, Ray, and with others who maintained an opposing stance. For Plot, fossils represented naturally-created objects produced by some extraordinary plastic virtue latent in the earth where they were found.

In Staffordshire he elaborated on the argument that formed stones were not the actual remains of once-living organisms:

But as for stones found, like Sea-fish, though in this Mediterranean County, I have met with many, and of many sorts; but chiefly resembling Shell-fish of the testaceous kinds, both univalves and bivalves; and of the former of these, some not turbinated, and others again of the turbinated kind. Of the first sort whereof, viz. Stones representing univalves not

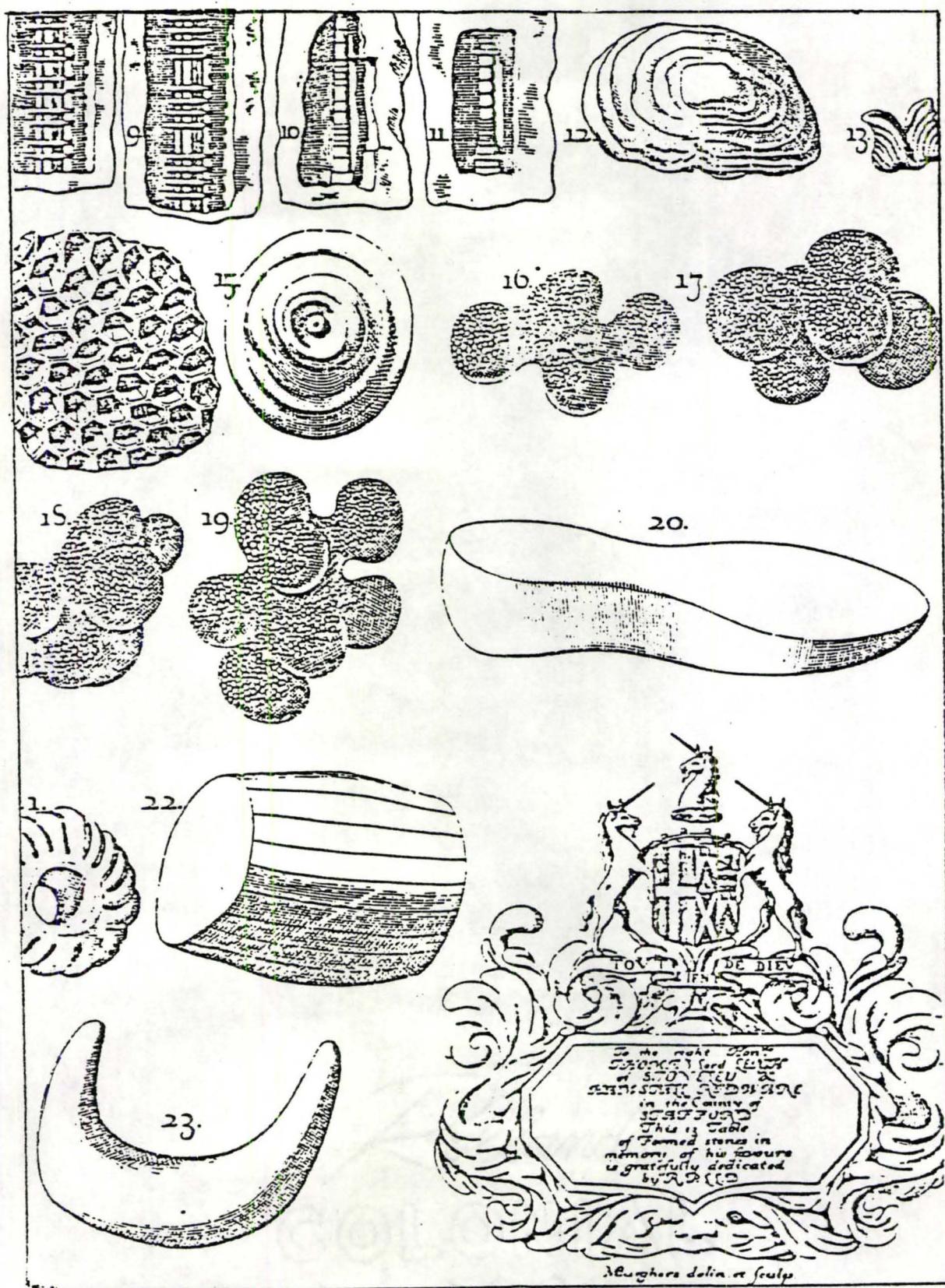


Fig. 13. Illustration of Fossil Specimens, from Plot's Staffordshire

turbinate, I had two bestowed on me by the curious Observer the Worshipfull Walter Chetwynd of Ingestre Esq; so altogether unlike any of the living Shell-fish, that alone they are sufficient to convince any unprejudiced person, that all these formed stones cannot be shaped in Animal molds.<sup>84</sup>

Plot gave no fewer than seven reasons for adhering to this position. The first rejects opposition theories of the former existence of a flood, either the deluge of Noah or else a more localized flood, that supposedly transported the shells inland. Second, he was unable to discover the kinds of shell bones which would have been, he assumed, deposited by flooding. He was only able to locate certain testaceous-like shells. Among his other arguments he also noticed that many of the formed stones appear to have been created on the spot where they were found. Hooke, on the other hand, believed that formed stones included several specimens that were so similar to living shells that they could have been nothing else but the remains of animal shells. He also reasoned that nature would not have wasted her time in the useless creation of such formed stones.<sup>85</sup> Plot could not agree to either argument. He thought that there existed, in fact, many things in nature that resembled living organisms, pointing to the auriculare and cardite stones which looked like those parts of human bodies from which they derived their names. As for Hooke's other hypothesis, Plot countered that formed stones were--like flowers--created by nature to beautify the world; not to mention the fact they

had medicinal properties. Furthermore, he noted that many former shells were found far inland, deposited there by different types of actions; e.g., some were thrown up on the seashores, others were remnants of shell fish eaten and discarded by town dwellers, and so on. All of these shells had been permeated by "petrifying juices" and thus, in time, became petrified.<sup>86</sup>

Having described the flora and fauna of Staffordshire, Plot incorporated into his work a study "Of Men and Women." In keeping with his love of displaying the unusual he treated the "accidents" which have befallen mankind; first, those occurring "at or before his birth, then in his course of life, and lastly at his death." This entire chapter is riddled with examples of these, many of which involve persons with whom Plot had personal contact. Other examples are taken from the works of Erdeswicke, Stow, Dugdale, Wood, and others. His favourites include monstrous births, instances of long periods of somnambulism, strange distempers and diseases, etc.

The final chapter, "Of Antiquities," is further evidence that scientific antiquarianism now had established itself within the context of regional study, even if it still generally remained a secondary concern when compared to natural history. As Plot explained:

For Satisfaction of the Reader, upon what terms I added this Chapter of Antiquities to my Natural History, it seeming to some altogether forraigne to the purpose:

I take leave to acquaint him, before I advance any further, that I intend not to meddle with the pedigrees or descents either of families or lands, knowing a much abler pen. . . ; nor of the antiquities or foundations of Religious houses, or any other pious or civil performances: it being indeed my designe in this Chapter, to omit, as much as may be, both persons and actions, and chiefly apply my self to things; and amongst these too, only of such as are very remote from the present Age, whether found under ground, or whereof there yet remain any footsteps above it; such as ancient Medalls, Ways, Laws, Pavements, Urns, Monuments of Stone, Fortifications, etc. whether of the ancient Britons, Romans, Saxons, Danes, or Normans. Which being all made and fashioned out of Natural things, may as well be brought under a Natural History as any thing of Art: so that this seems little else but a continuation of the former Chapter [i.e., "Of Arts"]; the subject of that, being the Novel Arts exercised here in this present age; and of this, the ancient ones. . . .

Plot set out his programme of scientific antiquarianism, one not significantly different from that of Aubrey, in his letter to John Fell. Plot endeavoured "to make a full Collection of British, Roman, Saxon, and ancient Money," and also of urns, lamps, "Lachrymatories," ancient inscriptions, ruinous buildings, hill fortifications, barrows, and Roman roads.<sup>88</sup> Hunter, however, is correct in drawing attention to Plot's tendency to rather uncritically "interpret antiquities piecemeal by received ideas."<sup>89</sup> Thus, in Oxfordshire, Plot had already referred to such monuments as that famous stone circle located outside of Wiltshire and the Rollright stones. But he credulously repeated, at the same time, various wild claims as to their origins. In Staffordshire Plot described not only monuments but also portable artefacts. He described in detail serrated points

and spears, discussing their origins and use. He insisted that these are all man-made, and he compared the stone tools of Britain with those from America.<sup>90</sup> His illustrations of a stone projectile and of a spearhead are perhaps the first published British drawings of local stone artefacts. In regard to Stonehenge, Plot arrived at the conclusion that it was most likely a British forum or temple, and not one commemorating any Roman pagan deity, since the Romans were at one time skilled in architecture and, if they had been the builders, "would have made a much more artificial structure."<sup>91</sup> Similarly, he found arguments to counter claims that Stonehenge was built by the Danes.

Staffordshire crowned Plot's reputation, and a hundred years later it still could be said that in the compiling of regional natural histories "he has not been excelled by any subsequent writer."<sup>92</sup> Staffordshire also proved to be the only book on the natural history of the county until 1844.<sup>93</sup> Once Staffordshire was completed Plot relinquished the Chair of Chemistry, entered into marriage, and retired to the life of a country gentleman on his Kentish property. Not surprisingly, he could not resist the compilation of a natural history of that county. (He also intended to do the same for London and Middlesex). In mid-August, 1693, Plot therefore engaged in a fact-finding excursion through Kent in company with a man named Thomas Browne.<sup>94</sup> By early September he was able to write that: "I

have now finish't all the upper part of Kent, having travell'd as near as I can guess about 200 miles, whereof I believe not much above fifty on horseback, notwithstanding the weather here has been so bad. . . ." <sup>95</sup> He then directed his attention to London and Middlesex, so that by November, 1694, he had "now actually enter'd upon my great work." <sup>96</sup> However, the plan was to come to nought; Plot fell ill with the "stone" and died in the spring of 1696.

That Plot's scholarship was held in high esteem is evident in the fact that a new post, that of "Mowbray Herald Extraordinary," was created specifically for him about one year before his death, at which time he was also appointed Register to the Court of Honour. His name is also kept alive among fossils by one of the better known sea urchins, "Clypeus plotii." With Plot's two major works natural history became the dominant element in regional study, thus supporting the claim that Plot was "one of the Oxford pioneers in the development of regional geography." <sup>97</sup>

## NOTES: CHAPTER VIII

<sup>1</sup>Childrey, Natural Rarities, "Epistle Dedicatore."

<sup>2</sup>See A. J. Barnouw and B. Landheer, eds., The Contribution of Holland to the Sciences (New York, 1943); and, T. Puschmann, A History of Medical Education (London, 1891). Ewan, John Banister, 25, also describe how England lagged behind in its recognition of the study of botany as a university subject.

<sup>3</sup>F. V. Emery, "Irish Geography in the Seventeenth Century," Irish Geography 3 (1958):264-265.

<sup>4</sup>Arnold Boate had a detailed knowledge of Ireland from eight years' service as Surgeon-General there. Sir William and Sir Richard Parsons, two of the Irish "exiles," were also major contributors to the book, and these two men probably supplied the author with much of the information that pertained to the rocks and minerals of Ireland.

<sup>5</sup>See Arnold Boate's prefatory letter to Samuel Hartlib, in Gerard Boate, Ireland's Naturall History (London, 1652).

<sup>6</sup>His story in Ireland is documented in Great Britain, Public Record Office, Calender of State Papers, Domestic, 1649-1650, vol. 1 (1649):66, 588.

<sup>7</sup>Boate, Naturall History, prefatory letter.

<sup>8</sup>Hunter, John Aubrey, 112. Hunter's quotation is taken from the title page of the Naturall History. Both Hartlib's and Boate's concern for the practical application of the New Philosophy and its tenets is in part a reflection of Sir Thomas Browne's interest in the practical aspects of the same. For example, "Browne's interest in plant growth was utilitarian as well as academic," according to E. S. Morton, "The Botany of Sir Thomas Browne," Isis 47 (1956):167. Because he had had some experience previously as a fruit grower, Browne saw great potentialities in the art of grafting, which he adumbrated in a long list of experimental combinations (*ibid.*).

<sup>9</sup>Arnold Boate to Samuel Hartlib, 16 July 1648; quoted in Emery, "Irish Geography," 265, and in G. H. Turnbull, Hartlib, Dury and Comenius: Gleanings from Hartlib's Papers (London, 1947), 58.

<sup>10</sup>Hartlib's agricultural ideas are discussed in G. E. Fussell, Old English Farming Books (London, 1947), chap. 4. The effect of these and other ideas of Hartlib on the Fellows of the Royal Society is discussed in G. H. Turnbull, "Samuel Hartlib's Influence on the Early History of the Royal Society," Notes and Records of the Royal Society of London 10 (1953):101-130.

<sup>11</sup>Samuel Hartlib, quoted in Boate, Naturall History, "Epistle Dedicatore."

<sup>12</sup>Ibid., 9.      <sup>13</sup>Ibid., 10.

<sup>14</sup> Norden, Cornwall, 1728 ed., 3-5.

<sup>15</sup> Owen, Penbrokeshire, 1:2.

<sup>16</sup> Speed, Theatre, 1611 ed., 117.

<sup>17</sup> Childrey, Natural Rarities, 27.

<sup>18</sup> The quotation is taken from the formulator of the earlier theory, Richard Verstegan (alias Richard Rowlands), in A Restitution of Decayed Intelligence (Antwerp, 1605), 98. Wallis's stand is found in "A Letter . . . Relating to that Isthmus, or Neck of Land, which is supposed to have joyned England and France," Philosophical Transactions 22 (1701):967-979.

<sup>19</sup> Boate, Naturall History, 49. In a careful analysis on the "Causes of the loss of such ships as perish Upon this Sea" (pages 49-50), Boate expresses his belief that the major common cause is the long, dark winter nights, when "some furious storm arising, the ships are dashed against the rocks . . . whilst the Steermen and pilots by reason of the darkness not being able to discern the land. . . ."

<sup>20</sup> Ibid., 52-53. Boate, however, may have been considerably influenced by Bacon's ideas on the marine environment. Bacon had advocated the collection of information on subjects such as the ebb and flow of the sea, currents, salinity, subterranean physical features, etc. Bacon himself listed several observations on such subjects

in Sylva Sylvarum; see Sir Francis Bacon, Sylva Sylvarum: or a Naturall Historie, 2d. ed. (London, 1628), 226.

<sup>21</sup>Boate, Naturall History, 13. <sup>22</sup>Ibid., 85.

<sup>23</sup>Other aspects of the bogs have merited the attention of Boate. At one point (ibid., 124) he displays an admiration of the native Irish for their ability to cross the deepest bogs from one side to the other over their firm places, "in which nimble trick, called commonly treading of the bogs, most Irish are very expert, as having been trained up in it from their infancy." This was, apparently, a lapse from Boate's usual defamatory portrayal of the Irish, a people whom he scurrilously refers to as "one of the most barborous Nations of the whole Earth" (page 124).

<sup>24</sup>Ibid., 112-113. <sup>25</sup>Ibid., 71-75. <sup>26</sup>Ibid., 74.

<sup>27</sup>Ibid., 78-79. <sup>28</sup>Ibid., 119.

<sup>29</sup>Taylor, Stuart Geography, 137n.

<sup>30</sup>Boate, Naturall History, 125.

<sup>31</sup>He uses the term "mine" as equivalent to "ore."

<sup>32</sup>Taylor, Stuart Geography, 132.

<sup>33</sup>See Samuel Hartlib, The Advancement of Learning (London, 1653), quoted in Charles Webster, ed., Samuel Hartlib and "The Advancement of Learning" (London, 1970), 173-174. Irelands Naturall History has been described by at least one modern researcher, K. Theodore Hoppen, "The Dublin Philosophical Society and the New Learning in Ireland," Irish Historical Studies 14 (1964):100, as: ". . . the only

scientific book in the modern manner relating to Ireland, written before the restoration. . . . Breaking away from the old chorographical method, Boate bases his views on observation and verifiable fact." As far as the study of Ireland's natural history is concerned, little more was done in this field until, in 1682, William Molyneux, an ardent Baconian, undertook to write the natural history of the country for Moses Pitt's great English Atlas; see Hoppen "New Learning," 101, and Hoppen's article "Some Queries for a Seventeenth Century Natural History of Ireland," The Irish Book 2 (1963):60-61. Molyneux sought out other Irishmen who were equally interested or versed in the scientific techniques of regional study, and from such inauspicious beginnings was formed in 1683 the Irish counterpart to the Royal Society, the "Dublin Philosophical Society."

<sup>34</sup> Robert W. T. Gunther, Early Science in Oxford, 14 vols. (Oxford, 1920-45), 12(1939): preface. Gunther says (Page 333) that it was the publication of Robert Plot's The Natural History of Oxfordshire (Oxford, 1677) that persuaded Ashmole to donate his collections to Oxford University, and so "To Plot . . . Oxford owes the first public Institution in Britain for the study of Natural History in its widest aspects."

<sup>35</sup> Robert Plot, "Plinius Anglicus sive Angliae Historia naturalis ac Artium," London, Society of Antiquaries, Society of Antiquaries MS, 85, fol. 2.

<sup>36</sup>Plot, Oxfordshire, 204; Robert Plot, The Natural History of Staffordshire (Oxford, 1686), 329-330.

<sup>37</sup>Plot, "Plinius," 2, quoted in Hunter, John Aubrey, 70.

<sup>38</sup>Wood, Athenae Oxionenses, 4: col. 772.

<sup>39</sup>Francis Bacon, "Parasceve," 2, in Bacon, Works, 4:254. Plot's plan has been mentioned in the present study in the section on Aubrey.

<sup>40</sup>See Gunther, Science in Oxford, 12:335-336.

<sup>41</sup>The letter to Fell is contained in ibid., 12:343-344; Spelman's "An Interpretation of Villare Anglicanum" is contained in Oxford, Bodleian, Aubrey MS, 5.

<sup>42</sup>Ibid., fol. 19.

<sup>43</sup>Gunther, Science in Oxford, 12:344.

<sup>44</sup>Plot, "Plinius," 1.

<sup>45</sup>"Oxford Testimonial to Dr. Plot," 25 July 1674, in Gunther, Science in Oxford, 12:345-346.

<sup>46</sup>This is especially true of Plot's Enquiries, published in 1679.

<sup>47</sup>The original manuscript of "the Naturall History, only," for "Surrey" (which Aubrey sent to Plot), survives as Oxford, Bodleian, Aubrey MS, 4, 235f., because Plot later returned it to Aubrey at Aubrey's request; see John Aubrey to Anthony à Wood, 3 August 1691, Oxford, Bodleian, Wood MS, F39, fol. 429.

<sup>48</sup>Plot, Oxfordshire, 99.

<sup>49</sup> Aubrey's copy of Plot's Oxfordshire is now Oxford, Bodleian, Ashmole MS, 1722. Aubrey's marginal notes here indicate the nature of his assistance to the author. On page 336, for example, we learn that Plot derived his information on certain Danish fortifications from a "note the Dr. had fro J Aubrey." It appears that Edward Lhuyd came to peruse this same copy; on the title page is written, in Lhuyd's hand, "Historiam Suam Naturalem agri Stafforshire. . . ." On Aubrey's assistance to Plot also see Oxford, Bodleian, Rawlinson MSS, K15281, fols. 102-164; K15282, fols. 198-294.

<sup>50</sup> Robert Plot to John Aubrey, February 1676, London, BL, Egerton MS, 2231, fols. 100-101; also see Oxford, Bodleian, Aubrey MS, 13, fol. 137.

<sup>51</sup> Hunter, John Aubrey, 83, 86. Of Plot, Aubrey had this to say: "I did not think that there had been so much trueth in Mr. R. Sheldon's advice to [me] sc: lend not your MSS. how ungratefully Dr Plott hath used me!" (Oxford, Bodleian, Aubrey MS, TGC25, fol. 95). This is in contrast to the attitude usually displayed by Aubrey towards Plot. Aubrey wrote to Wood of "Dr Plott . . . whom I shall be able to assist, and he to assist me," and on yet another occasion he asked Wood: ". . . if you meet with Dr. Plott, pray thank him for his Queres" (John Aubrey to Anthony à Wood, 25 February 1675 and 25 May 1684, Oxford, Bodleian, Wood MS, F39, fols. 292, 372, respectively).

<sup>52</sup>Plot, Oxfordshire, "To the Reader."

<sup>53</sup>Ibid., 69.

<sup>54</sup>Ibid., "To the Reader"; all of the references to the map, which follow immediately, are taken from here.

<sup>55</sup>It is amusing that although Plot was generally considered both a man of learning and a man of affairs, some of the Staffordshire gentry to whom he addressed his enquiries used to boast of having "befooled old Plot." To such displays, in the last sentence of Staffordshire Plot replied: "I hope all Readers will deale so candidly with me, as only to reprove me calmly, for what is done amiss, which sort of Chastisement I shall cheerfully receive; sincerely promising never to offend in the like manner again. . . ." Further to this, the publisher of the second edition of Oxfordshire, in his remarks to the reader, states that the objections that have been raised against some of Plot's hypotheses have no other foundation than ill nature and censoriousness.

<sup>56</sup>Ibid., 1-2.

<sup>57</sup>He appeared in the Philosophical Transactions as the author of commentaries on such topics as the formation of sand and salt from brine, sepulchral lamps, observations on lead, and on electrical bodies; see Philosophical Transactions 13 (1683):96-99; 14 (1684):806-811; 15 (1685):930-943; 20 (1698):384, respectively.

<sup>58</sup> When the Duke of York visited Oxford with Princess Anne in the spring of 1683, Plot's Oxfordshire was presented to him as a gift, together with Wood's history of the university. Plot also had the honour of entertaining the royal party by performing chemical experiments for their satisfaction.

<sup>59</sup> Gunther, Science in Oxford, 12:349, contains a list, compiled from Birch's historical notes, of gifts made by Plot in 1683. These included the following examples:

Jan. 31. 1. Moyra, an earth, wherewith the Turks put on . . . walls of their houses.  
2. A depilatory, 2/3 lime, and 1/3 orpiment, made . . . in a cataplasm, to take away hair.

Feb. 21. 13. A white earth for polishing silver.  
17. An earth found under Fairy-rings.

June 6. 32. A piece of rock crystal from Madagascar.

June 27. 35. Selenites dodecahedros, mentioned in . . . Natural History of Oxfordshire.

<sup>60</sup> That the new institution, as Gunther, Science in Oxford, 12:353, points out, was not as widely known in Oxford as it deserved to be is revealed in the following letter (Edward Lhuyd to John Aubrey, 12 February 1686, London, BL, Egerton MS, 2231, fol. 228):

'Twas well you writ to me of it, for the generality of people at Oxford doe not yet know what ye Museum is: for they call ye whole Buylding ye Labradory and distinguish no farther. That nothing miscarried soe directed to Dr. Plot, was because ye Person was known better than ye place, but things directed to me or Mr. Higgins commonly stayd at the carriers till we fetch'd them.

As for the benefactor, Ashmole, his story is told by A. L. Humphreys, Elias Ashmole (Reading, 1925). Ashmole's notes on Berkshire were carelessly assembled and printed by E. Churll (see *ibid.*, 17-18) under Ashmole's name as The Antiquities of Berkshire, 3 vols. (London, 1719). It follows those of the chorographers, and consequently contains little if any natural history of importance.

<sup>61</sup> See Gunther, Science in Oxford, 12:355-356; for Plot's overall work in chemistry see *ibid.*, 1(1923):47-50, 251-261.

<sup>62</sup> Taylor, "Alchemical Papers," 69-70. Taylor based his article on the evidence of a volume containing a number of Plot's papers, now London, BL, Sloane MS, 3646.

<sup>63</sup> Gough, British Topography, 1:xix.

<sup>64</sup> Martin Lister extended his wishes to Plot for the success of the newly-established Philosophical Society of Oxford, stating that "Your new Societie will be of great use, it will excite this other here, and emulation is the great promoter of learning"; he went on to observe that "your Methode to be more free and more intent than ours; and I hope you will put us upon new wayes, as well as new matter of Experiments" (Martin Lister to Robert Plot, October 1683, Gunther, Science in Oxford, 12:39).

<sup>65</sup> The Dictionary of National Biography credits Chetwynd; but Plot, in Staffordshire, 61, refers to the "Right Honourable the Virtuous and most Accomplish't Lady,

Jane Lady Gerard Baroness Gerard of Gerards Bromley, the first actual Encourager of this Designe." (Italics mine). Chetwynd was a distinguished antiquary, elected to the Royal Society in 1678. Among his collections we find the papers of William Burton. He was, apparently, a generous man; not only did he finance the building of a church at Ingestre (see Plot, Staffordshire, 297-300), but he also acted as a patron to Plot, aiding him financially in the survey of the county. He also assisted Plot by supplying useful answers to Plot's queries; see Gunther, Science in Oxford, 12:215, 218.

<sup>66</sup> Jacob Wagner, "Historia Naturalis Helvetiae Curiosa," Philosophical Transactions 13 (1683):268-271. Wagner's study is organized along the same general lines as those of Plot or Aubrey, taking into account the great difference in the topography of the respective regions under consideration. Also see Francis Aston to Robert Plot, 12 July 1683, Gunther, Science in Oxford, 12:36.

<sup>67</sup> See S. A. H. Burne, "Early Staffordshire Maps," Transactions of the North Staffordshire Field Club 54 (1920):70. At least one of Plot's correspondents, Charles King, apparently was confident that Plot's second regional natural history "would be publick" well before the time that it actually was; see Charles King to Robert Plot, 26 March 1684, Gunther, Science in Oxford, 12:216.

<sup>68</sup>All of these innovations are discussed in Burne, "Staffordshire Maps," 69.

<sup>69</sup>Plot, Staffordshire, 23-24.

<sup>70</sup>He does the same thing in Oxfordshire, where he uses the description of fossils found there as a starting point for a discussion of the origin of fossils in general. He does not, however, in this particular case repeat the origin theory again in Staffordshire because of his profound desire to "avoid all vain repetitions" (page 2).

<sup>71</sup>Ibid., 50.

<sup>72</sup>At one point (ibid., 60) Plot alluded to Boate's study of the springs of Ireland, which was contained in Ireland's Naturall History, chap. 7. Plot, in another work, De Origine Fontium, Tentamen Philosophicum (Oxford, 1685), 7, discussed in greater detail the explanations of the relationship between seawater and springwater as subscribed to by various other figures, including Vitruvius, Peter Martyr, Cardano, Molina, Palissy, Gassendi and Hooke. These generally attributed to Aristotle the hypothesis of the exchange of water between the oceans and the atmosphere. The theory postulating the subterranean origin of springs they credited to Plato. (These two Classical writers made the earliest studies on these subjects which survive complete).

<sup>73</sup>Plot, Staffordshire, 113; also see his discourse on soil erosion (page 170).

<sup>74</sup> See W. H. B. Court, The Rise of the Midland Industries, 1600-1838, 2d. ed. (London, 1953), 16, 164. Plot, Staffordshire, 110, states that the mountains of the northern part of the county are "hardly passable, some of them being of so vast a height, that in rainy weather I have frequently seen the tops of them above the Clouds."

<sup>75</sup> This comes only after Plot concluded his section on the soil by stating (*ibid.*, 125), that: "reckon'd up by such as have written de Arte combinatoria" there are in total "179001060 different sorts of Earths."

<sup>76</sup> *Ibid.*

<sup>77</sup> Plot was the first to use the following geological terms: "bass," "basset," "bats," "clunch," "laming," and, "measure." D. R. Dean, in "The Word 'Geology,'" Annals of Science 36 (1979):35, states that: "The earliest direct ancestor of our present word "geology" is the "geologism" of Richard de Bury, which appears as a deliberate coinage in Chapter II of his Philobiblon (written 1344)." The term is here used to denote "earthly science" in the sense of human laws as contrasted with Divine ones. "The first British work to acknowledge an independently designated science of the earth obviously akin to geology," according to Dean (*ibid.*, 36), was Daniel Collins's translation of Mickel Pederson Escholt's Geologica Norvegica (1657). Plot apparently was aware of Collins's translation, for he cited it (incorrectly) in Staffordshire, 145. The first book

written by an English-speaking person to carry the title "Geologia" was a cautious criticism of Burnet's Telluris theoria Sacra, by Erasmus Warren, Geologia, or a Discourse . . . Wherein the Form and Properties Ascribed to It [the earth], in a Book Intituled, "The Theory of the Earth," Are Excepted Against (London, 1690); see E. G. R. Taylor, "The English Worldmakers of the Seventeenth Century and Their Influence on the Earth Sciences," Geographical Review 38 (1948):109.

<sup>78</sup> Plot, Staffordshire, 131.

<sup>79</sup> Ibid., 170. On the magnetic polarity and the compass, also see Francis Aston to William Musgrave, 24 January 1683, in Gunther, Science in Oxford, 12:50-51.

<sup>80</sup> Cox, "British Palaeontology," 210-211.

<sup>81</sup> H. Hamshaw Thomas, "The Rise of Geology and Its Influence on Contemporary Thought," Annals of Science 5 (1947):327, believes that Plot was ". . . one of the last champions of the old views is England."

<sup>82</sup> Plot, Oxfordshire, iii; also see Edwards, History of Palaeontology, 5; and, Sir Archibald Geikie, The Founders of Geology, 2d. ed. (New York, 1905), 77. The close ties between British naturalists investigating their native land and those studying other lands is revealed, for example, by the fact that--in connection with the examination of fossil remains--Plot credits his "Ingenious friend," John Banister, M.A., with finding near Oxford an "Anthropocadites" which he

illustrates on Plate VIII, fig. 2 of Oxfordshire, commenting that: "I thought its Admittance would be not ungrateful to the reader"; see Ewan, John Banister, 310. Conversely, Banister consulted Plot's works for information on various matters (*ibid.*, 385, 387). Lister, Ray, Lhuyd, and others also used Banister's collections towards their own work (*ibid.*, 18, 101, 102).

<sup>83</sup> Plot, Oxfordshire, 111-112.

<sup>84</sup> *Ibid.*, 182. <sup>85</sup> See *ibid.*, 118, 120.

<sup>86</sup> Plot's "petrifying juices" or "plastic force" was certainly what we now recognize as crystallisation, and the workings of the salt principle in the creative plastic virtue were described by Plot in great detail in *ibid.*, 121-124. There were certain fossils whose organic nature Plot was prepared to admit, for they possessed not only the outward form of bones but exhibited, though turned to stone, a characteristic bony structure.

<sup>87</sup> Plot, Staffordshire, 392.

<sup>88</sup> Robert Plot to John Fell, n.d. (c. 1673), Gunther, Science in Oxford, 12:341-342.

<sup>89</sup> Hunter, John Aubrey, 202.

<sup>90</sup> Plot, Staffordshire, 396-397. Plot described flints that were "exactly in the form of a bearded arrow jagged at each side with a large stem in the middle." He concluded therefore that "not only are these arrows . . . all artificial, whatever is pretended, but also that they

had anciently some ways of working by the tools, which may be seen from the marks"; *ibid.*, 396. Olaus Wormius, in Museum Wormianum (Leyden, 1655), chap. 3:39, had already written that: "some [of these flints] resemble so closely the point of a sword that it is doubtful if they are the work of nature or of art. . . ."; see Philip Shorr, "Genesis of Prehistorical Research," Isis 23 (1935):429.

<sup>91</sup> Plot, Staffordshire, 398.

<sup>92</sup> R. Pulteney, Historical and Biographical Sketches of the Progress of Botany in England, 2 vols. (London, 1790), 1:351.

<sup>93</sup> R. Garner, The Natural History of the County of Stafford (London, 1844-60), was the first to follow in Plot's footsteps.

<sup>94</sup> An account of the antiquities which Plot and Browne examined is contained in a small diary entitled "Tour in Kent," London, BL, Sloane MS, 1899, and also Oxford, Bodleian, Rawlinson MS, D390, fols. 95-96; see Gunther, Science in Oxford, 12:360.

<sup>95</sup> Robert Plot to Arthur Charlet, 2 September 1693, *ibid.*, 12:396.

<sup>96</sup> Robert Plot to Arthur Charlet, 1 November 1694, *ibid.*, 12:402.

<sup>97</sup> E. W. Gilbert, Geography as a Humane Study (Oxford, 1955), 4.

## CHAPTER IX

### REGIONAL STUDY IN THE LATE SEVENTEENTH CENTURY AND THE BRITANNIA CIRCLE

The Natural History of England was long since Proposed as a thing of great Use, by the great and Judicious Lord Verulam [Bacon]. In Prosecution of which Dr. Childrey afterwards made some Essays. And were the Design rightly carried on, it could not but be very acceptable to all who are Friends to Learning, but more especially to the Gentlemen of England; in regard it would advantage a great variety of useful Knowledge and conduce much to<sup>1</sup> the Reputation and Advantage of our Native Country.

Following Robert Plot's lead, British scholars involved in regional study in the closing decades of the seventeenth century were becoming increasingly aware of the practicality of incorporating the study of natural phenomena into their work. The "promotion of useful Knowledge" was a slogan they frequently repeated. By their methods of collecting, observing, and experimenting, of taking cognizance of natural phenomena to an unprecedented degree, they acquired an abundance of detailed information about the various regions of Britain which they believed would prove to be of benefit to mankind as a whole. With the encouragement of the Royal Society the regional writers, along with the other similarly interested scholars, attempted to promulgate this type of attitude among the general public. Before long they were able to achieve

considerable success in attaining this objective, to the extent that the production of works of natural history, as Douglas notes, may be seen as:

. . . a reflection of the highly instructed public which was ready to sustain the scholars, and to exercise upon them the influence of an informed criticism. Thus was created the atmosphere which made possible their work, and the common interest which linked the scholars to those who supported them was thus admirably exhibited in the new Britannia which was a fitting product of the age . . . the original work was ceasing to represent the state of English topographical knowledge, and in 1658 Thomas Browne clearly saw that a revised Britannia would fill a wide gap in English scholarship.

This proposed task was taken up under the direct instigation of Edmund Gibson (1669-1748). In the present chapter the focus is on the efforts of Gibson and his collaborators in researching and publishing a new, greatly revised edition of Camden's Britannia. Since to a large degree the major participants in this project laboured independently within the larger, general framework of cooperation, representative figures from this group will be studied separately. In this manner their distinct traits as well as their common characteristics will be more readily perceptible. Edward Lhuyd, in many respects the major link (except for Gibson) among members of this circle, will be investigated first. Next come the Scottish figures, Robert Sibbald, Andrew Symson, Martin Martin, and James Wallace, who collectively formed a sub-group within the larger one, even if the interests of some of its members were not directed as much towards the Britannia project as elsewhere.

Finally, the regional researches of Dr. Charles Leigh of Manchester and John Morton will be scrutinized. Both men were influenced by the Britannia group; the quality of Leigh's work, however, did not achieve the same high standards, while Morton's surpassed it.

Gibson today looms as a great figure of the eighteenth-century church, bishop successively of Lincoln and London. But it was while he was still an undergraduate that he became involved in the scheme of re-editing Camden's Britannia, and was only twenty-six years old when the book was published in 1695. In 1686 he was first admitted as a "poor serving child" at Queen's College, Oxford, and received his B.A. in June, 1691. While there his energies were attracted toward Anglo-Saxon studies which at that time were the rage at Oxford due to the reputation and teachings of a group of distinguished scholars, including Hickes, Nicholson, and Thwaites. Gibson also allied himself with his fellow undergraduate, Thomas Tanner, and it is from the mutual correspondence of these two men that we know of much of Gibson's editorial efforts.<sup>3</sup> Previous to the issue of the new edition of the Britannia, Gibson had already contributed towards antiquarian scholarship. In 1693 he had supplied notes to James Brome's edition of William Somner's Roman Ports and Forts in Kent, and in 1694 he published his own translation of Somner's Julii Caesaris Portus Iccius.<sup>4</sup> He received his M.A. at approximately the same time, was

admitted a Fellow of his college, and took holy orders. So, by 1695 Gibson was free to concentrate on his greatest project.

The Britannia was a collaborative effort since Gibson obviously was quite incapable of undertaking, as was any one man, the entire project singlehanded. With the aim of correcting mistakes found in the original work, of supplementing the revised edition from publications that had appeared since Camden's death, and of producing a satisfactory translation of the original book (Holland's translation being considered as inadequate), Gibson assembled some thirty contributors from amongst the leading scholars of the day, a group which included some of the foremost natural historians. The overall goal was that of presenting Camden to English readers in a form which they might easily comprehend. Regional study in the late seventeenth century thus became centred on the Britannia project.

In the ancient world, Aristotle's network of informants sent back from all corners of the known world a steady flow of material for his tracts on natural history. One of these, Theophrastos, wrote the first accounts of the structure and classification of plants. Such works contained so much information on zoology, comparative anatomy, physiology, and other aspects of natural history, that they set the tone for similar research right up until

the seventeenth century. It was perhaps with Aristotle's fact-finding system in mind that Gibson assembled his team of notables. These included: Samuel Pepys, who was responsible for the sections concerned with naval history; William Nicolson, the Saxon scholar, who contributed material on Durham and Northumberland; Hugh Todd, who lent his assistance with regard to Cumberland, as did White Kennett towards Oxfordshire; Tanner, who was concerned with Wiltshire; and also Thomas Machell, Robert Plot, Ralph Thoresby, Edward Lhuyd and James Wallace. The papers of Sir Henry Spelman were also used in the account of Norfolk. Even John Aubrey's assistance was literally "appropriated." Gibson was anxious to use the material from Aubrey's unpublished though well known "Monumenta Britannica." Aubrey, still apprehensive of others plagiarizing the fruits of his own labour, was extremely reluctant to comply, fearing that the inclusion of extracts from the "Templa Druidum" section of the "Monumenta Britannica" could hinder the printing of the work as a whole.<sup>5</sup> However, his anxiety was slightly allayed by Lhuyd's promise that "if you are pleas'd to communicate, I shall be carefull to doe you right, and not rob you of any part of that honour and thanks that is due to you from the curious and ingenious."<sup>6</sup> Tanner also added his power of persuasion to the cause, so that Aubrey, relying as he put it on Gibson's "Integrity and virtue," was

won over; but not before Gibson had registered the following complaint:

If you were to trot every day along Cat-street, and after a turn or two in the Schools quadrangle, to adjourn to Tom Swift's, I could exercise you for not sending your papers sooner. But when a man's cloystered up in an old Monkish Lodge and the very Phys of his chamber is nothing but antiquitie itself; for such a one to make delays, is a little tolerable. If you knew how I am persecuted, you would not keep them a momt longer; old John Aubrey is dayly upon me, and the blame is as dayly layd upon poor Mr. Tanner.

Gibson was disappointed when in 1694 he finally received the manuscript, finding that the "accounts of things are soe broken and short, the parts soe much disorder'd, and the whole such a mere Rhapsody, that I cannot but wonder how that poor man [Aubrey] could entertain any thoughts of a present Impression."<sup>8</sup>

The 1695 Britannia was kept to one volume despite the desire of the country gentry that their pedigrees and details of their estates should also be included. This allowed for the inclusion of more natural history than otherwise might have been possible, taking into account the original chorographic nature of the work. Even the services, therefore, of the Scottish natural historian Robert Sibbald proved of use, though his work as a natural historian was for the most part unpublished at this time, and therefore was not widely known.

In the meantime, Edward Lhuyd (1660-1709), who was originally brought into the Britannia circle by Nicolson to

provide information on Wales, employed a network of correspondents to aid him in his study. His own commitment is more richly documented than are the efforts of his correspondents. Emery aptly demonstrates how Lhuyd took advantage of the strong connexion which existed between Jesus College, Oxford, and Wales, utilizing people at both locations in his task.<sup>9</sup> Lhuyd believed that the revised Britannia should contain those "occurrences in Nature, as seem more especially remarkable," and therefore he included in his contribution items such as those sent to him by one of his correspondents, Nicholas Roberts. These included observations on migratory sea birds, on the blowhole at Bosherston on the south coast of Pembrokeshire, and on the making of black butter from seaweed.<sup>10</sup> Lhuyd also received specimens of fossilized plants from his informers, such as the "Mock plants" found at a coal pit in Glamorganshire.<sup>11</sup> Lhuyd, in fact, is considered to be one of the founders of the science of palaeontology.<sup>12</sup> His original curiosity in fossils was aroused by his early discovery of several varieties of fossils near Oxford. Once other investigators had learned of Lhuyd's interest in these, they began to send him specimens from the Bristol and Somerset coalfields. Like Lister, Plot, Hooke, and some of the other virtuosi, Lhuyd soon found himself embroiled in the heated controversy concerning their origin. He was of the opinion that such "formed stones" grew out of the earth from seeds dispersed

by vapours from the sea, although he was never fully satisfied with this hypothesis.<sup>13</sup>

With the exception of Frank Emery, few modern scholars fully appreciate or even take notice of Lhuyd's achievements as a natural historian, antiquary, and comparative philologist. Archaeologists, for example, see Lhuyd as having existed in a sort of limbo between the first stage of archaeology (the pioneer, preparatory, and speculative stage) and the second stage (the descriptive, or formative one). As the successor to Plot as Keeper of the Ashmolean ("a poor place, seeing there is no pay"), however, he was celebrated amongst his fellow scholars for his great learning and prodigious labours.

Lhuyd experienced a meteoric rise to prominence at a relatively young age. Although the exact place of his birth in Wales is unclear, he prided himself on his Welsh roots ever after. In 1682 he entered Jesus College but did not follow the orthodox kind of academic career shared by John Ray or by his other friends. He never did graduate, but nevertheless was elevated by Plot to the Underkeepership of the Ashmolean in 1684, succeeding to the Keepership upon Plot's retirement. Plot and his associates furthered Lhuyd's scholarly career by putting Lhuyd in communication with the chief authorities on the subjects in which he held an interest. The relationship between Lhuyd and Plot, his tutor, is a perplexing one. Plot appears to have taken

pride in his young protege, almost to the point where there developed a certain camaraderie between them, one of a professional nature at least. At one point he wrote to Lhuyd, requesting: "Pray let me hear from you sometimes how the Musaeum and Natural History thrives, as you shall from me, for tho' the London and Oxford societies sleep, yet let us be awake."<sup>14</sup> And yet this attitude was not as much a reciprocal one on the part of Lhuyd, even though without Plot's help, and the use of his geological collections, Lhuyd--in all probability--would not have enjoyed the opportunity of engaging in high-quality research into British palaeontology. Lhuyd said of Plot:

To give him his due, he is both curious and ingenious, but the most vainglorious and conceited man I ever met with; a fault which is perhaps chiefly owing to his education. His book is garnished here and there with Divine Reflections and written in a very tedious and somewhat incongruous stile, but I hope it may contain some observations which may be acceptable<sup>15</sup> to ye curious and in measure make amends for the stile.

Lhuyd may have been slightly jealous of the success of his mentor's publishing activity. But his attitude was in part also due to his own professional system of collection and classification, which was thoroughly methodical. Whereas Plot deplored Aubrey's rather haphazard approach in this respect, Lhuyd was able to come up with similar reproaches concerning Plot's methodology. Being less willing to theorize than to observe, Lhuyd was therefore critical of the hasty assumptions which he had found in some of Plot's

antiquarian arguments. In the marginalia of page 164 of the Ashmolean copy of Plot's Oxfordshire, for example, Lhuyd indicated his wariness of Plot's conclusion that all of the pots listed are of Roman origin, not British.<sup>16</sup> Likewise, he held an unfavorable disposition towards Aubrey's methodology or, rather, the lack thereof. Interested primarily in establishing the facts, Lhuyd stated that he would believe an illiterate shepherd sooner than a bishop in matters of "mountainous and desert places," which no doubt were better known "to those of his profession then men of learning."<sup>17</sup>

This ever-increasing insistence on original observation through fieldwork is one more illustration of the growing scientific awareness of the men engaged in regional studies in the second half of the seventeenth century. Lhuyd and others generally scorned the work of the earlier writers, "who, til this last century contented themselves with a bare reading and scribbling paper."<sup>18</sup> Thus, although he exhibited a certain amount of admiration for his predecessors, calling the chorographer Erdeswicke, for example, "a very eminent man, who has nicely enquir'd into the venerable matters of Antiquity," Lhuyd was reluctant to accept their authority on nearly every matter outright.<sup>19</sup> He had noted that Giraldus wrote "in an age less cautious and accurate." He also questioned the investigations of George Owen; of a site at Nevern (the

Rocking-stone), "having never seen it myself," Lhuyd could not entirely satisfy himself as to "whether it be a Monument or, as Mr. Owen seems to suppose, purely accidental."<sup>20</sup> Hence he rigorously insisted on undertaking extended perambulations which were devoted to field study. He puzzled the publishers of the Britannia by insisting on a scientific expedition or "Camden Tour" through Wales in 1693. Even before the terms of the contract were satisfactorily resolved, Lhuyd left Oxford in mid-August for Wales, returning by mid-October, so that by September, 1694, the results of his travel were in Gibson's hands.<sup>21</sup> Lhuyd was hopeful that his contribution to the Britannia would induce the Welsh gentry to "encourage something more considerable," and in this regard he was not disappointed.

In May, 1665, we find him writing to Lloyd:

Some gentlemen in Glamorganshire have invited me to undertake a "Natural History of Wales"; with an offer of an annual pension from their County of about ten pounds for the space of seaven years; to enable me to travail etc.: but I know not how the gentry of other countrey's stand affected. If the like encouragement would be allow'd from each county, I could very willingly spend the remainder of my days in that employment: and begin to travail next spring. Nor should I only regard the Natural History of the countrey, but also the antiquities. . . . I must confesse the sallary may at first seem too much and the time of seaven years too long; but such as are acquainted with Natural History know there's no good to be done in't without repeated observations; and that a countrey of so large extent cannot be well survey'd, and the natural productions of it duly examin'd, under the space of four or five summers; after which time remaining will be short enough for methodizing the observations and publishing the History.<sup>22</sup>

Thus, in the summer of 1695 Lhuyd put forth a two-part proposal for "A Design of a British Dictionary, Historical and Geographical; With an Essay entitl'd, 'Archaeologia Britannica'; And a Natural History of Wales." Presumably the plan had support at Jesus College for the Principal there, Jonathon Edwards, had suggested to Lhuyd that the work he had already accomplished towards the Britannia might serve as the nucleus of a greater study, i.e., as a natural history of Wales after the style of Plot's studies. The idea appealed to Lhuyd, especially when couched in terms which he could, and most likely did, interpret as holding out hope of upstaging Plot in his own backyard, so to speak. He was aware, however, that the proposed task would be a difficult one and therefore decided to accept the following advice from Nicholas Roberts: "It will be an insuperable Task to give so exact an account of each County in Wales, as Dr Plot has of Oxfordshire, unless you have many Correspondents, one for each 2 or 3 Counties at least."<sup>23</sup> In all, his programme of research was to last from 1697 to 1701, and to take Lhuyd not only through Wales but also to Ireland, Scotland, and Britanny.

In his investigations Lhuyd and his helpers, travelling on foot with knapsacks, made extracts from manuscripts and collected diverse rarities in addition to examining the natural phenomena of the regions they visited. But Lhuyd also supplemented this by issuing in 1696 a

number of Parochial Queries to be sent to each parish in Wales, Shropshire, and Herefordshire, often employing undergraduates as carriers to deliver these to the local gentry or clergy. The use of such queries, as shown, had already been an accepted practice for at least thirty years. Lhuyd therefore had several models available on which to base his own and, as Emery points out: "it is suggestive to find the placing together in one volume of his miscellaneous papers of the queries printed by Molyneux, Plot (both the 1674 and 1679 versions), and by Thomas Machell (1677)."<sup>24</sup> Machell's queries, which were the first to specify the study of antiquities, history, and geography at the parish level, and which were more elaborate than their predecessors, were of particular use to Lhuyd. Lhuyd's own queries, however, were oriented more towards a wider range of natural history.<sup>25</sup> Lhuyd's queries were divided into two sections, relating to: 1. "The Geography and Antiquities of the Country" (sixteen questions); and, 2. "Queries towards the Natural History" (thirty-one questions). Following each query is a blank space for the reply. Lhuyd explained that their purpose was not to "spare myself the least Labour of travelling the Country, but on the contrary be assured, I shall either come myself, or send one of my assistants into each Parish. . . ."<sup>26</sup> He also admonished the recipients to confine themselves "to that Parish only where they inhabit, and distinguishing always betwixt Matter of Fact, Conjec-

ture, and Tradition."<sup>27</sup> The first section of queries contained, specifically, a general question concerning the name (and its derivation) of a parish, and also questions of a somewhat chorographic nature, e.g., regarding the seats of the gentry, old arms, inscriptions, customs, peculiar games and feasts, etc. The second section, on the other hand, delved deeply into topics relating to natural history.

Query Number Twenty-six even offered an inducement:

If such places [e.g., caves, mines, coalworks, quarries] afford any uncommon Oars, Earths, or other Minerals; Stones resembling Sea-Shells, Teeth, or other Bones of Fish; or Crabs-Claws, Corals, and Leaves of Plants; or in brief any Stones; or other Bodies whatever of a remarkable Figure; the Workmen are desired to preserve them, till they are called for by the Undertaker, or some of his friends; in Consideration whereof, they shall receive some Reward suitable to their Care and Pains.<sup>28</sup> (Italics mine).

Four thousand queries were printed for dispersion throughout Wales, Ireland, and Scotland, and these were sent out previous to Lhuyd's journeys there. Many of the responses to these were published in the early twentieth century.<sup>29</sup>

Lhuyd designated the first two years of his tour to combing Wales itself. Then he moved on to northern Ireland, and later Scotland, where he spent the winter of 1699. Then came, in turn, southern Ireland, and four more months in Wales and four in Cornwall. A short stint in Britanny, on the way back to Oxford, rounded out the fact-finding mission. Lhuyd kept no diary of the trip so that Emery has had to piece together the dates and details of his progesess

from letters and from the addresses and dates upon them.<sup>30</sup>

*W*hile absent from the Ashmolean Lhuyd was kept informed of museum news by the librarian in charge, William Williams. Unfortunately, the tour coincided with some of the severest climatic conditions of what is today known as the "Little Ice Age." This posed a major impediment to his work. In Wales, for example, Lhuyd encountered freak hail storms in May and June, 1697, and there are replies to his queries which describe hail and snow at Easter, 1698.<sup>31</sup> As if such experiences were not discouraging enough, Lhuyd and his expeditionary party encountered other kinds of difficulties, ones which were not necessarily atypical of those experienced by many other natural historians in the field. Everywhere he travelled Lhuyd aroused suspicion. In southern Wales he was mistaken for a Jacobite spy; while in Britanny he was arrested as an English spy.<sup>32</sup> In Ireland, he confessed, "the Tories [Bandits] of Kil-Arni in Kerry obliged us to quit those mountains much sooner than we intended."<sup>33</sup> In Cornwall the reception was no less inhospitable:

Mr. Lhuyd [so the account goes] came into the country at a time when all the people were under a sort of panick, and in terrible apprehension of thieves and house-breakers; and travelling with his three companions . . . prying into every hole and corner, [they] raised a strange jealousy in people already so much alarmed. . . . At Helston, as Mr. Lhuyd was poring up and down, and making many enquiries about Gentlemen's seats, etc., he (with his companions) was taken up <sup>34</sup> for a thief, and carried before a Justice of the Peace.

It is regretable that only one volume of Lhuyd's proposed design was to reach print, the "Glossographical" section of the Archaeologia Britannica: an Account of the Languages, Histories, and Customs of Great Britain, and then not until 1707, four years after the manuscript was completed. In ten parts, this work dealt with etymology, philology, and grammar. It was unenthusiastically greeted by its subscribers and the Welsh gentry, most of whom considered it a sealed book--even the Welsh Preface was printed in Welsh letters that must have seemed to many undecipherable.<sup>35</sup> Only the linguists, the English and Celtic scholars, were to acclaim its appearance, but this was enough to facilitate Lhuyd's entry into the Royal Society, where his work received the recognition which it deserved. Lhuyd resolved to publish the "Glossography" before the dictionary and the natural history because he believed, ironically, that it would meet with more buyers, and because he had "a tolerable apparatus for it." The intention was to issue the volume on natural history in five parts, dealing with the following topics: 1. "A general description, soil, meteors, a comparative table of weather in general places, seas, rivers, lakes, etc."; 2. "All the various sorts of earths, stones, minerals"; 3. "Formed stones" (fossils); 4. "Plants--those growing spontaneously";

5. "Animals." However, this volume was never published. Emery claims that it had the potential, if it had ever reached the printer, of constituting "a study of the first importance for the geography of Wales."<sup>36</sup>

One cannot but be amazed at the many-sided genius of Lhuyd's scholarship. The "Glossography" represents the first effort at a comparative study of the Celtic languages --something that was not attempted again until the mid-nineteenth century. Lhuyd had made basic discoveries in the study of linguistics, e.g., phonetic analogies among the Celtic languages, and he made the earliest known collection of Manx vocabulary. But even before Celtic philology had found its place within his field of interest Lhuyd had already occupied himself with the scientific study of botany and palaeontology. It appears that he was a born botanist, and had inherited his love of the plant kingdom from his father. As early as 1682 we find him climbing the peaks of Snowdonia, securing specimens. (His name is commemorated in his most notable discovery, "Lloydia Serotina," Mountain Spiderwort). His interest in fossils has already been noted. One of his first duties in the Ashmolean under Plot involved the cataloguing of the fossil collection, which resulted in his presenting to the Philosophical Society in 1686 a catalogue of the shells. His major interest lay in "formed stones"; he realized the need for a handbook of fossils, and he himself produced a systematized catalogue of

a total of 1,766 fossils of Britain, entitled (in reference to fossil plants, which Lhuyd called "Lythophyta," or mineral leaves) the Lithophylacii Britannici Ichnographia (1699). This resulted in his being acclaimed as the foremost natural historian in Europe.<sup>37</sup>

Lhuyd's approach to scientific antiquarianism is in many respects comparable to that of Plot, if not to that of Aubrey. Both men observed the similarity between Indian stone tools brought from America and those discovered in Britain. In discussing the amulets of the Scottish highlanders, which he believed to be relics of the Druids, Lhuyd observed:

I doubt not but you have often seen of their Arrowheads they ascribe to elfs and fairies: they are just the same chip'd flints the natives of New England head their arrows with at their day: and there are also several stone hatchets found in this kingdom, not unlike those of the Americans.<sup>38</sup>

Both Plot and Lhuyd stressed the relationship between European thunderstones and stone implements on the one hand, and weapons from other parts of the world on the other, demonstrating that these were used for hunting and wood-trimming, not merely for purposes of defense. Furthermore, Lhuyd's comparative knowledge of archaeology exceeded that of Aubrey.<sup>39</sup> Overall, be it in the area of natural history or scientific antiquarianism, Lhuyd was advanced in his methodology, thus justifying the praise heaped on him by his contemporaries.

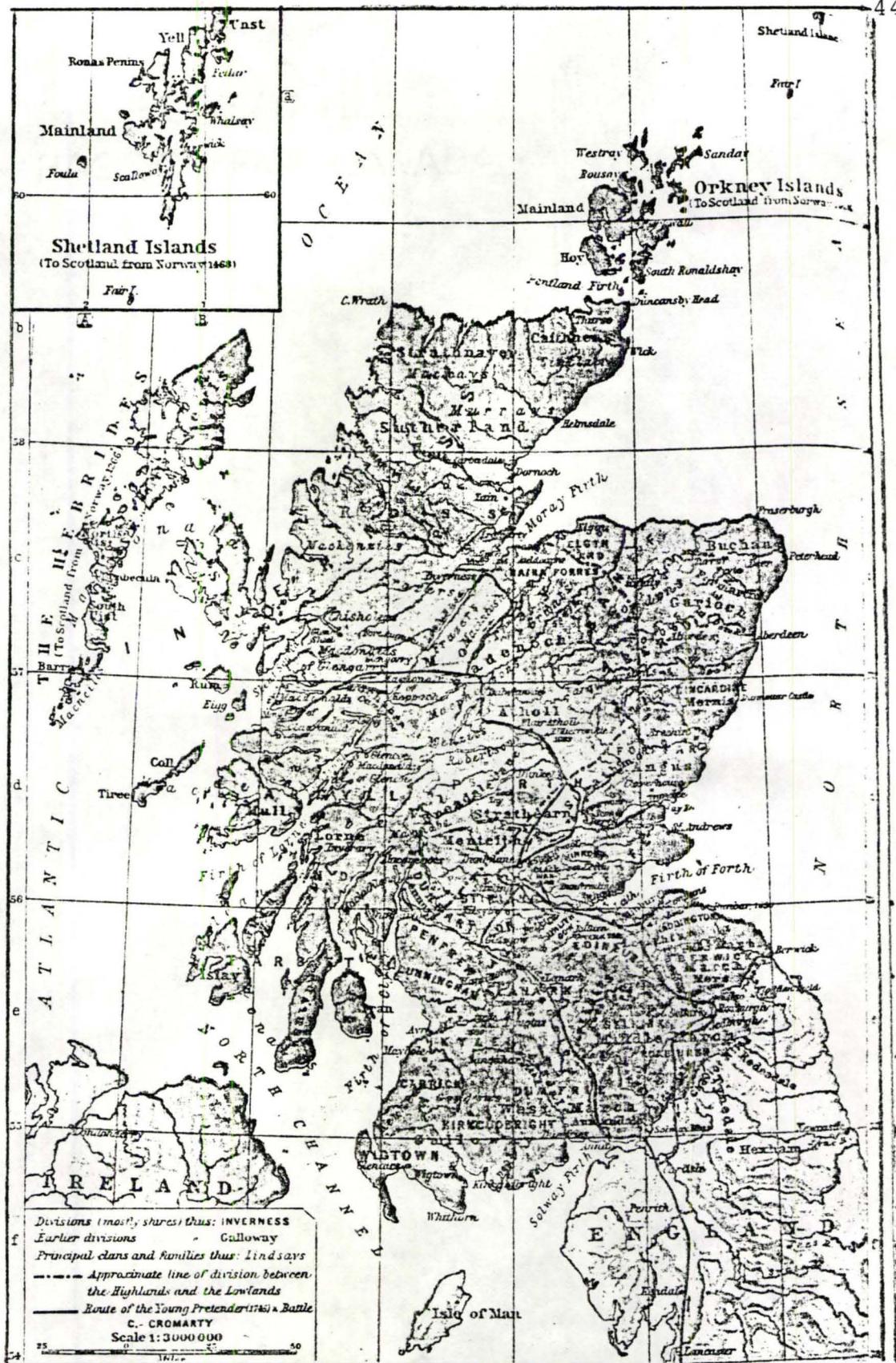


Fig. 14. Scotland, 1488-1688



Fig. 15. Morden's Map of Middlesex, from Gibson's 1695 edition of Camden's Britannia

One of these was Sir Robert Sibbald (1641-1722), a personal friend of Lhuyd's and a collaborator in the Britannia project. Sibbald was host to the Welshman while he was travelling through Scotland in 1699, and proudly showed him the collection of coins and artefacts which were located in the museum which was newly purchased by the "College of Edenborrough."<sup>40</sup> Sibbald, for his part, benefitted from this friendship by being the recipient, on other occasions, of letters from Lhuyd which contained the latest information on the subject of natural history.<sup>41</sup> The Lhuyd-Sibbald connexion, in fact, is only one example of the larger link between the Scottish regional writers and those in England. This link is one of two which involved the Scottish scholars, the other being the traditional Scottish one with the Low Countries.

Although Emery has taken brief note of the work of Sibbald, Scottish chorography and natural history have by and large received little attention.<sup>42</sup> Despite the two links with the outside world mentioned above, regional study in Scotland, especially in its early stages, developed on its own to a considerable degree. Sibbald was aware of this insular tradition and devoted a work to this subject.<sup>43</sup> In it he noted that the earliest accounts, written by foreigners, constituted "only some short touches of it [Scotland], and these [were] obscure."<sup>44</sup> However, Sibbald was also aware that the studies executed by early domestic

observers gradually increased in number until a climax in chorographic writing was reached with Timothy Pont's cartographical and chorographic efforts at the very end of the sixteenth century.<sup>45</sup> Pont and his fellow countrymen had to endure the same types of difficulties in their fieldwork that faced Lhuyd a hundred years later. The chorographer Robert Gordon, following in Pont's footsteps, relates how:

. . . with small means and no favouring patron, he [Pont] . . . travelled on foot right through the whole of this kingdom, as no one before him had done: he visited all the islands, occupied for the most part by inhabitants hostile . . . and with a language different from our own; being often stripped, as he told me, by the fierce robbers, and suffering not seldom all the hardships of the dangerous journey, nevertheless at no time was he overcome by the difficulties, nor was he disheartened.<sup>46</sup>

Emery brings to attention the fact that Gordon's variety of chorography "was more realistic and geographical than most landscape interpretation" which was being done in England at about the same time, and that it set the pattern for his son James Gordon.<sup>47</sup> And so, in his depiction of Fifeshire (1654) Gordon preferred to omit listing the numerous seats of the gentry of the shire, because to do so "belongs . . . to history. . . ."<sup>48</sup> This is of importance because most seventeenth-century regional study in Scotland centred on the work of the two Gordons, at least up until the time that Sibbald enters the picture.

The link between the Gordons and Robert Plot was developed when, in 1686, Charles Gordon, the grandson of Robert, travelled to Oxford to attend some of the meetings

of the Philosophical Society, ostensibly to "improve himself in Natural Philosophy" and thereby take some of this newly found knowledge back to Scotland where the "industrious searchers into the history of Nature" were attempting to organize their efforts.<sup>49</sup> At approximately the same time James Gordon in Scotland had effected the merger of the earlier chorography with current natural history by donating all of his material to Sibbald.<sup>50</sup> Sibbald personifies both the Scotland-Holland and the Scotland-Oxford linkage. Born in Edinburgh, he began his education in his native city, studying at first theology and later medicine. Besides his academic stints at Paris and Angers he also studied medicine at Leyden for one and a half years, commencing in 1660, where he took the degree of M.D. It seems only natural that Sibbald, like Gerard Boate, ended up sooner or later at Leyden, for in medicine, history, and in law, if not also in theology, the Dutch university excelled those found in Sibbald's homeland. By 1700, in fact, Leyden could boast of having "about 20 Scotsmen al very studious so that ther was never a parcell of better students at Lyden," and while there, Sibbald studied under Christian Marcgraf, the brother of George Marcgraf, author of a renowned natural history, the Historia Naturalis Brasiliae (1648).<sup>51</sup> No doubt Sibbald had the opportunity of thoroughly familiarizing himself with this production, or at least (on a general level), with the budding new field of natural history; this, perhaps, first

inculcated in him an interest in the description of natural phenomena.

Settling in Edinburgh to practice medicine, in association with Sir Andrew Balfour Sibbald established the botanical garden there. This was in keeping with his desire of investigating what "materia medica" in the way of herbs Scotland was capable of producing: "I came by conversation with him [Balfour] to know the best writers on natural history. I had . . . a designe to informe myself of the naturall history this country could affoord."<sup>52</sup> Sibbald was also chiefly instrumental in the founding of the Royal College of Physicians of Edinburgh (1681); and, in 1682, he was appointed Physician to Charles II as well as Geographer of Scotland. This latter appointment he obtained through the generous assistance of the Earl of Perth, whom he had come to know in 1678. Perth encouraged Sibbald to enlarge upon his study of the "naturall products" of Scotland. In order to do so, in 1682 Sibbald decided to:

. . . publish in our language one advertisement, and some generall queries, copies wherof were set all over the Kingdome; and from severall shires and Isles, especially by the care of the reverend Mr. Murdo Mackenzie, Bishop of Orkney, and Shetland, full informationes were sent to me by several learned men. . . .<sup>53</sup>

The queries were typical of the day, covering the general nature of the physical geography, the flora and fauna, minerals, and also ancient inscriptions, customs, and so on.

Sibbald's Nuncius Scotus-Britannus (1683) explained the order of the planned work and laid out his sources, which included Cluverius and Varenius and the Classical geographers. The Nuncius Scotus was prefixed to his first volume, the Scotia Illustrata, sive Prodromus Historiae Naturalis, which may be translated as "Scotland Illustrated, or an Introduction to its Natural History." It was published in 1684. In the Nuncius Scotus Sibbald explained that besides undertaking the project on the express command of the king he intended to update the account of Scotland because of the alterations that have occurred in its physical appearance since the time that the "Ancients" had written of it. He also sought to improve upon the imperfect or "partial" descriptions of the more recent regional writers. The Scotia Illustrata itself consisted of no fewer than twelve hundred copies. No other volumes were published, although Sibbald had the material ready for the printer, because of his failure to procure the required finances.<sup>54</sup> Like the contemporary works issued in England and elsewhere, the first volume contained a discourse on the quality of the air, and discourses on the flora and fauna, the waters, the mountain ranges, the forests, mines, arable lands, and on other physical features. The inhabitants, meanwhile, were described as being qualified for both the arts and arms by virtue of the roughness of their soil and the purity of the air. Interestingly enough, Sibbald also

discussed diseases in general, relating information about some extraordinary cases such as those involving hysterical fits, dropsie, etc. Appended to this particular account was a description of the types of medicines which Scotland produced and their virtues. Here Sibbald compared domestic medicines with foreign ones in an attempt to convey an idea of how little need there was for exotic drugs. In this book he also included a large section on the history of the fossils of his native land, even though he held few original ideas about them and therefore patterned his views on those of Martin Lister, i.e., believing that fossils were "lapides sui generis."<sup>55</sup> He did, however, give a great number of accurate descriptions of these.

The methodology exhibited in his work demonstrates that in some respects it was not quite as scientifically-oriented as that of Plot. For example, Sibbald relied to a greater degree on literary sources for his information. Also, many of his distant correspondents throughout Scotland proved to be too credulous or ignorant to be able to provide him with the kind of accurate information that he required. It is for this, in fact, that Sibbald has been resoundingly criticized by some of his more vocal detractors. His other works also give evidence of both the traditional and new modes of regional study. He is probably best known for The History, Ancient and Modern, of the Sheriffdoms of Fife and Kinross (1710), which was dedicated to the Earl of Rothess,

Sheriff-Principal of Fife, and to Sir William Bruce of Kinross. Belonging to a family from Fife, Sibbald had acquired an intimate knowledge of this region. In his study he incorporated chapters on etymology, on the perceived ancient prospect of the countryside, and on its ancient inhabitants the Picts and the Caledonians, speculating about the nature of their languages, religions and customs. He also recounted the Roman exploits in this country. Many of these topics are more common to chorographic literature, but they are found alongside the ones on natural history, the flora and fauna, minerals, soils, beach erosion, and so on. Scientific antiquarianism also has its place here. Sibbald drew attention to the recumbent stone circles of northeastern Scotland.<sup>56</sup> The record of prehistoric copper artefacts also begins with his report of a Late Bronze Age hoard from Fife.<sup>57</sup>

Sibbald's interest in scientific antiquarianism is evident in some of his other studies. In connection with his work on the Roman settlement he had this to say about the new science of archaeology:

Amongst the Sciences and Arts much improved in our time, Archaeologie, that is the Explication and Discovery of Ancient Monuments, is one of the greatest use: For the Ancients by Triumphal Arches, Temples, Altars, Pyramids, Obelisks, and Inscriptions upon Them, and Medals, handed down to Posterity, the History, Religion and Policy of their Times, and an Account of the Sciences and Arts which then flourished. Certainly in these times, of which Records are not found, the only sure way to write History, is from the Proofs [which] may be collected from such Monuments. And accordingly the

best Historians in the Age, lately elapsed, have followed that way in writing of such Ancient Times. In imitation of them I have written this Essay of Historical Inquiries concerning the Monuments [that] were left by the Romans in this North part of the Isle.<sup>58</sup>

Sibbald's interest in the Romans extended to The History, Ancient and Modern, of the Sheriffdoms of Linlithgow and Stirling (1710), a work similar to his account of Fife and Kinross. Utilizing the papers of Pont and others, Sibbald not only described the Roman walls, forts, garrisons, and monuments, but also attempted to reconstruct life as he thought it was in those days. He even extended this retrospective reconstruction to natural history, e.g.: "The cutting down of the Woods, and the rotting of the Timber, occasioned the great Mosses yet to be seen in several parts of the Shire [Stirling]."<sup>59</sup> Sibbald's scholarship generally evoked, with the afore-mentioned reservations, a positive response from scientists across Britain and the rest of Europe. Gibson, in his comments regarding the "Scotland" section of the 1695 Britannia, spoke for them all when he referred to the "very learned Sir Robert Sibbald, Dr. of Physick," as one "who has given sufficient testimonie to the world, of his knowledge of Antiquities, and particularly those of his own Country."<sup>60</sup> But the value of Sibbald's work was enhanced by the amount of reliable information he collected from other men, once one disregards the untrustworthy informants.

## The THULE of the Ancients.

By Sir Robert Sibbald.

**T**here is no place oftner mentioned by the Ancients, than *Thule*, and yet it is much controverted what place it was: some have attempted the discovery of it, but have gone wide of the marks the Ancients left concerning it; yet they seem all to agree that it was some place towards the north, and very many make it to be one of the British Isles: and since *Conradus Celtes* sayeth, it is encompassed with the *Orkney Isles*, it will not be amiss, to subjoyn to the description of *Orkney*, this Essay concerning it.

Some derive the name *Thule* from the Arabick word *Zul*, which signifies Far off, and as it were with allusion to this, the Poets usually call it *ultima Thule*; but I rather prefer the reason of the name given by the learned Bochartus, who makes the same to be *Phe-nician*, and affirmeth that it signifieth *darknes* in that language, *Chznan. Lib. 1. Chap. 40.* *Thule proprie Syris Umorā fuit; hinc translata significatio Thule protenbris passim sumitur, itaq; gezirat Thule erat insula tenebrarum; quod idem est ac tenebreosa, quod nomen insula ad extremum Septentrionem sita quam congruat, nemo non videt.* Hence: *Tibullus Panegyric. ad Messalam*, speaking of the Frigid Zone, hath this,

*Hic & densa tellus absconditum umbrā.*

And these places of *Hom. op̄s ξέποι ad caliginem*, and *lib. 3. v. 1190. οὐδὲ μή οὐκείται Νερός enim scimus ubi sit caligo*, is by Strabo interpreted *nescimus ubi sit septenrio*. We know not where the north is, *lib. 1. p. 34* and *lib. 10. p. 454* and *455*. And consonant to this, *Statius, lib. 3. Ad Claudiam Uxorem.*

*Vel super Hesperiae vada caligantia Thules,*

And *lib. 4. ad Marcellum.*

— aut *Nigra Litora Thules.*

And indeed this derivation of the word carries more reason than any other they give it, and is an evident proof that the ancients agreed in placing their *Thule* towards the north. We shall see next what northern country they pitched on for it.

The ancients seem most to agree, that *Thule* was one of these Isles that are called British. Strabo one of the most ancient, and the best of Geographers extant, sayeth; *Pythæas Massiliensis, circa Thulen Britannicarum insularum septentrionalissimam ultimam, ait esse.*

Fig. 16. Sibbald's Account of Thule

For this reason a little more may be said of one or more of his major, distant collaborators. Andrew Symson (1638-1712) proved to be one of the more reliable correspondents. Symson, curate of the Scottish Episcopal Church and minister of the Parish of Kirkinner in Wigtownshire and for a time a printer in Edinburgh, compiled a "Description of Galloway" in 1684 while he was still at Kirkinner.<sup>61</sup> Symson, coming into the possession of Sibbald's Nuncius Scotus and of Sibbald's queries, decided to "comply something with my genius" and thus to contribute his efforts towards Sibbald's work. In his study of "Galloway" he depicted the three natural units still seen in the present-day land use pattern of Wigtown: the Moor area noted only for its fine wool; the coastal tract marked by sandy soil; and the Machairs, which were composed of "white ground" with arable fields on thin gravel and coastal clay.<sup>62</sup>

But Symson's interest was neither in pure natural history ("I pretend no great skill in Ichthnology"); nor was it in pure antiquities. Using information gathered on the basis of his own observations or what he could obtain from others, he included in "Galloway" a mish-mash of miscellaneous topographical detail. Curiously, he seems to have held a special interest in accurately establishing the names of the patrons of each place and the extent, size, and boundaries of each and every parish. Therefore, it is not surprising to hear him discuss in a letter to Lhuyd, who was

then at Oxford, a plan to investigate the parishes with regard to their names:

But if it be only the names of places that you desire, I hope God willing to give you a large account therof in a Book which I intend to publish under the Title of "Villare Scoticum," wherein I intend to give an account of all the parishes in Scotland, as spelled of old and as now, together with all the Several titles and places of our Nobility Knight Baronets etc<sup>63</sup>, which shall furnish you abundantly with Pictish names.

Sibbald also received information from many other parts of Scotland, much of which is printed in Mitchell and Clark, eds., Geographical Collections. But special mention should be made of Martin Martin and his regional studies, which were produced not only in direct response to Sibbald's queries, but also to those of Lhuyd. Martin (d. 1719) is perhaps the most famous and the most important of all of Sibbald's collaborators. Born at Bealach and member of a prominent family of Skye, in 1681 he graduated M.A. from Edinburgh University. It is also known that in his later years he entered Leyden University (in 1710), that hotbed of Scottish students, and there graduated M.D. For a period of time Martin lived in the Western Isles of Scotland, holding the post of Governor to the Laird of Macdonald. After his stay at Leyden, however, he apparently resided in London until the time of his death. It was primarily out of curiosity that Martin undertook the survey of the Western Isles, in a manner "more exactly than any other," and so he enlisted as one of Sibbald's observers. Lhuyd, upon hearing

of Martin's enthusiastic stance, also sent him queries asking him to compile an account of the various dialects of the Irish language. Martin, like the two men whom he served, proved diligent in the cause of natural philosophy, informing his readership that his goal was "to oblige the republic of learning with anything that is so useful."<sup>64</sup> He was quite critical of the earlier chorographies which described the Western Isles, commenting on the "great change in the humour of the world, and by consequence in the way of writing" that had taken place since the great age of chorographic writing. He therefore arrived at the conclusion that the improvements in natural and experimental philosophy meant that "descriptions of countries, without the natural history of them, are now justly reckoned to be defective."<sup>65</sup>

One of his studies was of St. Kilda, to which he had sailed in an open boat in 1697. It was published in the following year as A Late Voyage to St. Kilda, The Remotest of all the Hebrides, or Western Isles of Scotland. Martin dedicated the work to Charles Montague, then President of the Royal Society. He stated that he wrote for the benefit of "the intelligent reader." In the Preface to this work we find evidence of the growing tendency among regional writers to resist the popular demand for accounts of little known, distant lands, and to encourage instead knowledge of the regions of Britain itself. This tendency had already

manifested itself in the work of Philip Falle, who discovered that, as far as Englishmen were concerned, "we were as great strangers as if these [Channel] Islands had been some degrees beyond the line," and so he tried to alleviate the situation through the publication of his own study. Martin expressed a similar feeling:

Men are generally delighted with Novelty, and what is represented under that plausible invitation seldom fails of meeting with acceptance. If we hear at any time a Description of some remote Corner in the Indies Cried in our Streets, we presently conclude we may have some Divertisement in Reading of it; when in the mean time, there are a thousand things nearer us that may engage our thoughts to better purposes, and the knowledge of which may serve more to promote our interest; and the History of Nature. It is a piece of weakness and folly merely to value things because of their distance from the place where we are Born. Thus Men have Travelled far enough in the search of Foreign Plants and Animals, and yet continue Strangers to those produced in their own natural Climate.<sup>66</sup>

Late Voyage contains the now-standard items of natural history, including descriptions of the inhabitants (who comprised a flourishing population of one hundred-eighty), climate, springs, natural products of the earth, flora and fauna, an earthquake, "Chrystal, how it grows," etc. The favourable reception which this work received encouraged Martin to continue to travel about the rest of the isles, observing the natural phenomena, and to publish the results of his findings in his major production, A Description of the Western Islands of Scotland (1703).

In tune with the scientific spirit of the age Martin took a lively interest, in this study, in topics such as

those relating to archaeology, determining, for example, that a particular stone circle which he had encountered was once used as a place of worship in heathen times. Taking a lively interest in matters concerning geomorphology, like Boate, Martin claimed that in the Hebrides the islands of Tiree and Coll had been severed from one another by the tempestuous Atlantic, and likewise suggested that some of the still more exposed Outer Isles had been separated by the same agent.<sup>67</sup> Martin was also aware of the implications of such studies towards building a natural philosophy which had its foundations in the laws of the universe.<sup>68</sup> Furthermore, he realized the value of his observations to the field of religion:

The land and the sea that encompasses it, produce many things useful and curious in their kind, several of which have not hitherto been mentioned by the learned. This may afford the theorist subject of Contemplation, since every plant, and the least particle of the smallest insect, carries with it the impress of its maker; and if rightly considered may read as lectures of divinity and morals.<sup>69</sup>

Martin's verdict was that man's salvation lay in a sort of primitive simplicity in his way of life. Thus, the inhabitants of the Western Islands appeared to him to be totally content, living a harmless existence, perfectly ignorant of most of those vices that afflict mankind elsewhere. These people were therefore found by Martin to be governed by the dictates of both Christianity and reason. A similar theme is found in Martin's Description of Skye,

written for Sibbald.<sup>70</sup> Although much of this work concentrates on natural history, the author does take the time to notice such things as the fact that the inhabitants of that island honour their ministers to a high degree, "to whose care under God they owe their freedom from Idolatrie and many superstitious Customes."<sup>71</sup>

Martin's work has recently been described as coming closest to the standards established by the Royal Society when one takes into consideration the work of all the Scottish geographers.<sup>72</sup> One of Martin's contemporaries, however, obviously did not express the same sentiment. John Toland criticized Martin's work on a multitude of counts. His criticisms may be found written in his hand in the marginalia to a copy of Martin's Western Islands.<sup>73</sup> Here Toland summarized his view:

The Subject of this book desrv'd a much better pen . . . . [These] Islands afford a great number of materials for exercising the talents of the ablest antiquaries, mathematicians, natural philosophers, and other men of Letters. But the author wontes almost every quality requisite in a Historian (especially in a Topographer). . . .

Notwithstanding Toland's remarks, the quality of the work of the Scots was generally quite high. A very brief look at the endeavours of one other Scottish regional writer, James Wallace, only tends to confirm this. Wallace (d. 1688) was one of a number of Puritan natural historians. He had graduated M.A. at Aberdeen in 1659 and became Episcopalian minister of Kirkwall. In addition to his

several tracts on matters of religion and church discipline, Wallace, at the request of Sibbald, wrote A Description of the Isles of Orkney, based on personal residence there. His work was incorporated almost verbatim into the "Additions to the Orcades" section of the 1695 Britannia, in which Wallace is described as "a person very well vers'd in Antiquities."<sup>75</sup> In some respects his interests are closest to those of Gerard Boate who wrote half a century earlier. This is evident in Wallace's hypnotic preoccupation with the coastline, and with the ebb and flow of the sea, seastorms, and with other related oceanic features. The two men also exhibited a similar interest in the furies of nature; as in Wallace's account of two whirlpools in the sea, "occasioned, as it is thought, through some biatus that is in the earth below," which affected vessels with such violence, "that if any boat or ship come within their reach, they will whirl it about till it be swallowed up and drowned."<sup>76</sup> Beyond this, Orkney bears considerable resemblance to the other natural histories of the late seventeenth century, exhibiting an interest in features such as the climate, soil, etc. Wallace's son, James, edited and reissued his father's study in 1700, while pretending to be the original author.<sup>77</sup>

The Scottish regional writers, it is clear, not only maintained a high quality in their work but also kept in close touch with workers in the field who were busy investigating the other parts of the British Isles. The

Britannia project made this kind of contact imperative. And so we find William Nicolson of Carlisle in 1699 working on the northern counties of England, and visiting Sibbald at Edinburgh. Similarly, Sibbald requested Edward Lhuyd, the Welshman, to "aquaint me what is publisht relating to Natural History."<sup>78</sup>

Not every book met these new standards, however.

The Natural History of Lancashire, Cheshire, and the Peak in Derbyshire, published by Dr. Charles Leigh in 1700, must have proved disappointing to its subscribers even though it styled itself--as the title indicates--a natural history. At least, it was later criticized by Richard Rawlinson as being too selective, vague, and with no sense of locality.<sup>79</sup> In many respects this book is little more than a translation of earlier Latin treatises, except that some of it is a summary of a much longer regional study by a Dr. R. Keurdan, to whose five manuscript volumes on Lancashire Leigh had access. Here Leigh, in the manner of a learned dilettante, set forth an imposing welter of concepts which he discussed in a pedantic rather than a critical manner.

Leigh (1662-1701?) graduated B.A. in 1683 from Brasenose College, Oxford. Wood records that he left Oxford in debt and went to Cambridge, to Jesus College. Before he graduated M.A. and M.D. (1689) at Cambridge, he was in May of 1685 elected a Fellow of the Royal Society, where some of his papers were read. His connections with the universities

and the Royal Society allowed him the opportunity of striking up acquaintances with some of the leading scholars of the day, including Plot, whose scientific lectures on various topics gained Leigh's attention (as attested to in Leigh's correspondence).<sup>80</sup>

Lancashire is divided into three books: the first relating to natural philosophy; the second, "chiefly Physick"; and the third focusing on the British, Phoenician, Armenian, Greek, and Roman antiquities of the counties he covers. The first book, therefore, contains the type of material one normally associates with natural history; information on flora and fauna, river systems and springs, minerals, and so on. Leigh's observations on geology are particularly erudite, noting the basin structure common in coalfields, rock-salt in Cheshire, and the lead ore deposits found in Derbyshire, amongst other geological structures.<sup>81</sup> He also gives two plates of fossils, with descriptions. Leigh believed in a non-organic source of fossils, borrowing all his ideas on this topic from the writings of others. Endorsing the universality of the deluge of Noah, he cited-- as support for the occurrence of the deluge--evidences such as the mounds of oyster shells in Virginia, and a skeleton of a buck discovered in England. His theory, though, rested primarily on biblical references.<sup>82</sup> Plants and formed stones were the two exceptions to his theory that organic remains were depositions of the deluge--plants could be made

by chemical processes, while formed stones were the result of the principle of "ovism" (i.e., the development, and growth to maturity, of animal eggs in stone cavities in the earth).<sup>83</sup>

The second book largely follows Plot's example, detailing incidents in the lives of eminent persons, the various arts, profession, trade, "accidents", etc. The most interesting material, however, lies in the third book. First, referring to Camden at some points, Leigh describes the various antiquities. But, obviously influenced by the Phoenician theories of Aylett Sammes, he then tries to prove that all of Britain was at one time colonized by Asian settlers who arrived long before either the Greeks or Romans. The basis for this claim was Leigh's comparison and examination of the Armenian, British and Phoenician languages, the "Asiatick" manner of fighting, the Eastern and British way of computing time, "the Reverse of a Coin and diverse other Things. . . ." <sup>84</sup> He develops his argument along elaborate lines, e.g.:

I shall now . . . endeavour from another relick of Antiquity to make it evident, that the Britains traded with the Eastern Nations, to wit, Phoenicia, and that is from a Torques lately found in Staffordshire, belonging, as may be supposed, to the British Queen Boadicia: Of which take the following Account:

In the County of Staffordshire, in the latter end of April, 1700 a poor Man in the Parish of Patingham, found a large and ponderous Torques of fine Gold. . . .

It seems to be a British Piece of Antiquity for the following Reasons:

First, Its being found near an old British City, as Dr. Plot in his Natural History of Staffordshire, makes that Place to be.

Secondly, Dion Cassius assures us, that Bonduca or Boadicia wore a Golden Torques.

The Romans, as well as the Britains, wore these Torques's,<sup>85</sup> and probably both of them had it from the Asiaticks.

Nevertheless, Leigh's conjectures on the Phoenician origin met with ridicule, as did his book as a whole, even though as prominent a scholar as Edward Lhuyd had expressed some interest in Lancashire.<sup>86</sup>

In fact, one of the best of all of the county natural histories was John Morton's The Natural History of Northamptonshire, published in 1712. Morton (1671-1726) was born at Whitton in Lincolnshire, where his curiosity in natural phenomena was stimulated by the abundant fossils found locally. He matriculated at Cambridge in 1688, graduated B.A. from Emmanuel College in 1691, and received his M.A. in 1695. By this date he had already become curate of Great Oxendon in Northamptonshire, where he searched the nearby medieval quarries for fossils, having been further inspired to do so by reading Lister's works on the subject. By the time he was inducted into the Royal Society in 1703 he had forged friendships with Lister, Sloane, Lhuyd, Nicolson, and many of the leading virtuosi of the day.

Palaeontology was the cornerstone of his friendship with Lhuyd, with whom he corresponded regularly from 1694 until 1709.<sup>87</sup> On occasion the two men went out into the

field together, as when they followed the Jurassic limestones to their intersection by the Humber. When they did not journey together the one usually kept the other informed as to his activities. When Lhuyd was in Sligo, Ireland, for example, he wrote the following to Morton:

We have travailed above a hundred miles in the highlands of Scotland; and afterwards proceeded to ye Lowlands as far as Glasgow and Edinburgh. . . . In ye Winter Monts . . . we could make few Observations as to Natural History. . . . Since our Return to this Kingdome we have been in Quest of their Form'd Stones; their Shells, and other exangusous Sea animals, and their Plants. We viewd ye Giants Causey in ye Country of Antrim; and found it to differ from a Basalte we had observ'd at Cader 'gon in Wales <sup>88</sup> in that it is much more elegant and breaks off in joynts.

It was on Lhuyd's advice that in 1698 Morton decided to compile a natural history of Northamptonshire. Lhuyd offered to help in any way possible, e.g. with the subscriptions or by supplying information, etc.<sup>89</sup> In 1704 Morton printed proposals for subscriptions in which he acknowledged that although the natural history of England would be an undertaking of too great weight and extent for any one single person: "it may be happily accomplished successively and by Parts," if only "several Persons of due Skill, Application; and Abilities" were to engage in this work, and each "take upon him the Search and Survey of only a single County. . . ."<sup>90</sup> Morton proposed to follow Plot's example, the latter having shown "that such an Undertaking is not like to be unacceptable in any other part of England."<sup>91</sup>

Northamptonshire did not appear until 1712. In a progress report contained in a letter to Sloane Morton indicated in 1706 that completion of this study was delayed because of the growing accumulation of materials he had acquired during his "Hunts," and because of the difficulty of assembling these in a useful manner.<sup>92</sup>

Northamptonshire opens with a general description of the county, in which Morton systematically divides it into several formal "territories" and "distinct Tracts." The former encompass large areas bounded by the main rivers, the latter are based on the different types of surface physical features, e.g., fen, heath, wood, pasture. Although his information was largely derived from a personal acquaintance with the county, Morton does pay some attention to what the earlier writers had to say about Northamptonshire; Leland, Camden, Speed, and Plot all have their place here. Quite often, however, these writers are only used by the author as vehicles for exhibiting his own pride in his native region. He notes, for example, that Speed thought that no other county was better stored with grain, and that Camden observed that the soil here was exceedingly fertile both for tillage and for pasture. (He even quotes Drayton's verse on the fruitfulness of the soil).<sup>93</sup> At another point he disparagingly comments on the fact that Camden did not take note of "the Prospects," i.e., hills.<sup>94</sup>

Morton proves himself to be a keen observer of the changes in the county that have taken place over the years. He delves into the changes that have occurred in agriculture, addressing the problem of enclosure, the principal reason whereof appears to him to be:

. . . the great Progress the Woodlanders had made in Agriculture, when the Ground was clear'd of the Wood which was cut down in Plenty for the use of the many IronWorks we had here in the ancient Woodland Part. Hereupon the County began to stand in need of Pasture to balance the Tillage. They had no Wants of Bread for the many People employ'd about the Fields: But there needed a Proportion of Cheese, Butter, and Flesh. This is suggested [by Camden] as the Cause of the Warwickshire Enclosures, and was probably the great Occasion of them here.

In a similar vein, in his description of the markets and towns of the county he exhibits curiosity about their character in the past. Thus, for the town of Oundle, Morton is quick to point out that Leland in his Itinerary found Oundle to have "a very good Market, and was all builded of Stone, and that the Paroch [Parish] Church was very fair."<sup>96</sup> When he comes to the main body of the book Morton describes in detail the composition of the soil, the stone in strata, etc., and the mineral deposits. He derives much of his information on these through fieldwork which included his rummaging through some stone pits, while investigating the "Interiour Parts of the Earth expos'd to view in the Quarries."<sup>97</sup>

Much of the rest of the work is reminiscent of those by Plot. Morton arranges his material similarly,

examining--chapter by chapter--the "Waters," "Air and Heavens," "Plants," "Brute Animals," "Human Bodies," "Arts," and "Antiquities." He is perhaps at his best when it comes to fossils, to which a large amount of the text is given. We find fourteen plates in Northamptonshire, and nine of these are exclusively occupied by figures of fossils. The plates show representatives of the leading Jurassic groups: lamellibranchs, brachiopods, gasteropods, ammonites, echinoids, and ichthyosaurians. The treatment of these follows Plot, although the figures do not quite attain the same standard of excellence, notwithstanding that Morton had more information to go on. Morton had access to other newly-published works on the field, aside from the standard ones issued by Lister and Woodward. Neither does the book lack accounts of unusual or amusing incidents. Thus, Plot's "echoes" receive attention as do "monstrous births," other "accidents" and diseases, and so on. Morton seems especially intrigued by cases involving the effects of lightning, e.g.:

But of all the ill-Accidents that have happened here by Lightning, that at Everdon, July 27, 1691 was the most dismal. Of Ten Persons who upon the Approach of a Storm removed from their Harvest-Work to a Hedge in the Field for Shelter, Four were kill'd and Six wounded. One of the poor men that was kill'd had a little Dog on his Lap: His Hand upon his Head, and with Bread and Cheese in his Hand, as if just ready to give the Dog a Bit. And thus in that very pasture he continued as stiff as if the Lightning had suck'd up all his Moisture, or had coagulated and fix'd it.<sup>98</sup>

Over thirty pages are devoted to the Roman antiquities of the county; Roman ways, coins, fortifications and Danish and Saxon features all are included in the chapter on "Antiquities." A considerable proportion of his source material on these comes from previous authors such as Kennett. On the whole, Morton adds some new knowledge to the field, often offering his own assessment, based on personal observation, of a particular site or artefact;

My Opinion of the Hunsborough Encampment, in brief is this: that it was a Summer Camp of the Danes, and particularly of one of their many Parties which sustain'd themselves by Plunder and Rapine. I take it to have been pitched at the time when Towcester was built by King Edward the Elder Anno 921, or however in that Interval betwix 913 and 921. They chose to Post themselves rather there than in the Town in the Summer Quarter; for by the Advantages of this Situation, they could the mor conveniently command and overawe the adjacent Countrey . . .

Northamptonshire was an improvement over all the natural histories which came before it in terms of thorough investigation of the subject matter and clearness of expression. Yet Morton's aim, including the practical one espoused by all the scientists of the day, was to glorify God by presenting to the world His works of nature. Morton's attitude to regional study is also revealed in his reply to a suggestion by Lhuyd that he might describe some other county; Morton decided to confine himself to a study of the county with which he was most familiar, and where he could find patronage, thus circumventing many of the problems encountered by former regional writers who may have

"overextended" themselves. As far as Morton was concerned he had been, in Northamptonshire, "a Searcher after Nature already many years, and the Gentlemen of the County are pleased to Naturalize me. The field is sufficiently rich and large in that extent I take it. In one Word, one county is enough for me."<sup>100</sup>

In some ways Morton had "out-Plotted" Plot when it came to natural history, as for example in visiting all the villages in his county, and even in his strict methods of inquiry:

Most of the Observations that this Second Chapter consists of have been made upon the Interiour Parts of the Earth expos'd to view in the Quarries. My Method in taking them had been usually this. First I noted the Species, Thickness, Order and other Circumstances of all the Strata, beginning with the uppermost and so proceeding downwards to the Bottom of the Pit; particularly the several Kinds and Varieties of Stone, the Uses of Each, and how each is affected or wrought upon by Water, Frost or Heat; the Number of the Strata into which by means of Horizontal and Parallel Fissures it is divided; and the Eavenness or Inequality of the Surface of the Stratum; As also the Foreign Matter and Heterogeneous Bodies, especially the Sea shells, enclosed in the Stone.<sup>101</sup>

By the time Morton was conducting his researches, regional or county studies had become overwhelmingly natural historical in their orientation, superseding, for instance, pure compilations which merely listed seriatim all that an investigator knew about his region (e.g., Childrey's Natural Rarities), as well as those works which still contained considerable elements of civil history. Plot and others had tended to organize their material after the universal

classificatory scheme suggested by Bacon, but rarely did anyone offer a general introduction to the physical geography of the region covered. Morton, however, did just this, by introducing his study with a comprehensive discussion of the position of Northamptonshire within the physical structure of Britain; he also went further than anyone before in presenting integrated accounts of the relief of the region, relating this to the strata and topography. Nevertheless, Morton's work was typical of many of the late seventeenth-century natural historians in that although it was ambitious and comprehensive, it remained local and narrow.

The value of the work of the natural historians cannot be overlooked. Through empirical research they were pioneering new methods to deal with the growing problems of a natural history of the earth. Lhuyd's insistence that "with Natural History know there's no good to be don in't without repeated observations," which in his view could only be accomplished by means of extensive travel, is indicative of their commitment to Baconian philosophy.<sup>102</sup> In attempting to discover essential characteristics and differences within nature at a local level, and to classify these, they therefore opened the door for the future reconceptualization of the entire country, and indeed the entire earth.

## NOTES: CHAPTER IX

<sup>1</sup>John Morton, "Proposals for Subscription to the Natural History of Northamptonshire," Oxford, Bodleian, Ashmole MS, 1820, fol. 79.

<sup>2</sup>Douglas, English Scholars, 257; also see Browne, Hydriopathia, preface, and Frank Emery, "Edward Lhuyd and the 1695 Britannia," Antiquity 32 (1958):179, where Emery states that the authors of many of the regional studies that were published between 1660 and 1730 "wrote for a well-informed, critical public among the gentry and clergy of their counties, where the study of antiquities and natural history flourished."

<sup>3</sup>The letters to Tanner are contained in Oxford, Bodleian, Tanner MS, fol. 25.

<sup>4</sup>Gibson's edition of Sir Henry Spelman's works appeared under the title of Reliquiae Spelmannianae in 1698.

<sup>5</sup>Aubrey feared that he would "lose the credit of it [the "Monumenta Britannica"] and the creame would be skimmed to imbelish that Designe, and then who would buy or print my Collections?"; John Aubrey to Edward Lhuyd, 19 October 1693, Oxford, Bodleian, Aubrey MS, 1814, fol. 100; also see Hunter, John Aubrey, 85.

<sup>6</sup>Edward Lhuyd to John Aubrey, 13 October 1693, Oxford, Bodleian, Aubrey MS, 12, fol. 248.

<sup>7</sup>Edmund Gibson to Thomas Tanner, 21 March 1694,  
Oxford, Bodleian, Tanner MS, 25, fol. 100; quoted in  
Piggott, "William Camden," 211.

<sup>8</sup>Edmund Gibson to Thomas Tanner, 12 April 1694,  
Oxford, Bodleian, Aubrey MS, TGC25, fol. 134.

<sup>9</sup>Emery, "Edward Lhuyd," 179-180. <sup>10</sup>Ibid., 181.

<sup>11</sup>Frank Emery, "Edward Lhuyd and Some of his  
Glamorgan Correspondents: A View of Gower in the 1690s,"  
Transactions of the Honourable Society of Cymmrodorion  
(1965):68.

<sup>12</sup>Emery, Edward Lhuyd, 39. Lhuyd described  
palaeontology as "a new science in natural History"; see  
Emery, "Glamorgan Correspondents," 69.

<sup>13</sup>Plot, who had inculcated in Lhuyd the plastic-  
virtue theory, may have left Lhuyd susceptible to irrational  
hypotheses concerning any other similar subject.

<sup>14</sup>Robert Plot to Edward Lhuyd, 29 January 1691,  
Gunther, Science in Oxford, 14(1945):133.

<sup>15</sup>See London, BL, Sloane MS, 4062, fol. 262. Lhuyd  
also referred to Plot as "A man of as bad morals as ever  
took a doctor's degree. I wish his wife a good bargain of  
him; and to my self yt I may never meet with ye like again";  
Edward Lhuyd to Martin Lister, 17 January 1691, Gunther,  
Science in Oxford, 14:131.

<sup>16</sup>Oxford, Bodleian, Ashmole MS, 1722; see Hunter,  
John Aubrey, 202.

<sup>17</sup> Edward Lhuyd to John Lloyd, 16 July 1695, Gunther, Science in Oxford, 14:279.

<sup>18</sup> Edward Lhuyd to Richard Rawlinson, 13 May 1697, *ibid.*, 14:335.

<sup>19</sup> On Lhuyd's remarks on Erdeswicke see the Britannia, 1695 ed., col. 531.

<sup>20</sup> *Ibid.*, col. 638. Lhuyd had obtained Owen's manuscript through John Lewis of Manour Nowen (*ibid.*, col. 636).

<sup>21</sup> For the date of Lhuyd's departure see Edward Lhuyd to Martin Lister, 4 August 1693, Gunther, Science in Oxford, 14:197-198; and, for his return, see Edward Lhuyd to John Lloyd, 10 October 1693, *ibid.*, 14:198, where he informs Llloyd that his "task-masters" "did not require I should put myself to ye trouble and expences of a journey into Wales."

<sup>22</sup> Edward Lhuyd to John Lloyd, 2 May 1695, *ibid.*, 14:269-270.

<sup>23</sup> Nicholas Roberts to Edward Lhuyd, 3 August 1695, Oxford, Bodleian, Ashmole MS, 1817A, fol. 316.

<sup>24</sup> Frank Emery, "A Map of Edward Lhuyd's Parochial Queries in Order to a Geographical Dictionary, etc., of Wales (1696)," Transactions of the Honourable Society of Cymmrodorion (1959):43-44; also, Oxford, Bodleian, Ashmole MS, 1820A, fols. 221, 222, 224, and 226, respectively.

<sup>25</sup> For Machell see John Rogan and Eric Birley, "Thomas Machell, The Antiquary," Transactions of the

Cumberland and Westmorland Antiquarian and Archaeological Society 55 (1956):132-153. Machell's motive for his investigations was "That the Northern Counties which abound in Antiquities and Ancient Gentry, may no longer be bury'd in Silence"; Oxford, Bodleian, Ashmole MS, 1820A, fol. 226. His queries were divided into three main groupings; those concerning every city, town, village, etc.

<sup>26</sup> Rupert H. Morris, ed., Parochialia, 3 pts. (London, 1909-11), 1(1909):ix-x.

<sup>27</sup> Ibid., 1:x.      <sup>28</sup> Ibid., 1:xiii.

<sup>29</sup> They have been published in ibid.

<sup>30</sup> For Lhuyd's adventures in Scotland see J. Wreford Watson, "Edward Lhuyd and Scottish Studies," Scottish Studies 2 (1958):117-119; and, J. L. Campbell and Derick Thomson, Edward Lhuyd in the Scottish Highlands, 1699-1700 (New York, 1963).

<sup>31</sup> See Gunther, Science in Oxford, 14:338-339.

<sup>32</sup> Edward Lhuyd to Henry Rowlands, 10 March 1701, ibid., 14:440.

<sup>33</sup> Edward Lhuyd to Richard Rawlinson, 8 June 1701, ibid., 14:457. The term "tories" is here in its original usage, not in its adopted English one.

<sup>34</sup> W. Pryce, Archaeologia Cornu-Britannica (Sherborne, 1790), footnote to Lhuyd's first letter.

<sup>35</sup> Parts of this work appear in the Philosophical Transactions, while much of it was published posthumously.

<sup>36</sup> Emery, "A Map," 44; E. G. Brown, The Settlements of the Celtic Saints in Wales (Cardiff, 1954), chap. 8.

<sup>37</sup> This work was published in eight volumes as "a pocket book to be carried into stonepits, etc. such large draughts being folded in, would soon be sullied and torn, abroad in the fields"; Edward Lhuyd to Martin Lister, n.d., September 1695, Gunther, Science in Oxford, 14:282. Here again is espoused the practical effect of the new science.

<sup>38</sup> Edward Lhuyd to Richard Rawlinson, 17 December 1699, *ibid.*, 14:425; also see Piggott, "Antiquarian Thought," 111.

<sup>39</sup> For the Lhuyd-Aubrey relationship see Glyn Daniel, "Edward Lhuyd: Antiquary and Archaeologist," Welsh History Review 3 (1967): passim.

<sup>40</sup> Edward Lhuyd to Martin Lister, 15 December 1699, Gunther, Science in Oxford, 14:419.

<sup>41</sup> See [Sir Robert Sibbald], The Autobiography of Sir Robert Sibbald (Edinburgh, 1833), 37-38.

<sup>42</sup> Frank Emery, "The Geography of Robert Gordon, 1580-1661, and Sir Robert Sibbald, 1641-1722," Scottish Geographical Magazine 74 (1958):3-12. To do justice to the regional work done in Scotland a separate dissertation would be required.

<sup>43</sup> Robert Sibbald, An Account of the Writers Ancient and Modern of North-Britain called Scotland (Edinburgh, 1710).

<sup>44</sup>Ibid., 3; here Sibbald is referring to the works of Ptolemy, Tacitus, and others.

<sup>45</sup>Ibid., 17-24. For Pont, see C. G. Cash, "The First Topographical Survey of Scotland," Scottish Geographical Magazine 17 (1901):399-414; Ian A. G. Kinniburgh, "A Note on Timothy Pont's Survey of Scotland," Scottish Studies 12 (1968):187-189; and, D. G. Moir and R. A. Skelton, "New Light on the First Atlas of Scotland," Scottish Geographical Magazine 84 (1968):149-159.

<sup>46</sup>Robert Gordon to Sir John Scotstarvet, 24 January 1648, *ibid.*, 149.

<sup>47</sup>Emery, "Geography," 5.

<sup>48</sup>Robert Gordon, quoted in *ibid.*, 4-5.

<sup>49</sup>See *ibid.*, 6.

<sup>50</sup>Much of this and other such materials (whether in their original state or transcribed), collected by Sibbald, eventually found its way into the Advocate's Library; see Mitchell and Clark, Geographical Collections; in particular see *ibid.*, 2(1908):xix-xx, "What Sibbald Received from James Gordon."

<sup>51</sup>The quotation regarding the number of Scotsmen at Leyden is taken from L. W. Sharp, ed., Early Letters of Robert Wodrow, 1698-1709 (Edinburgh, 1937), xli-xliii. E. W. Gudger, in "George Marcgrave, The First Student of American Natural History," The Popular Science Monthly 81 (1912):255, states that Marcgraf "would certainly have

raised himself to the rank of the first natural historian of his time, and possibly that of greatest since Aristotle," had he lived long enough to properly organize his Brazilian collections. Marcgraf's Historia Naturalis Brasiliae comprised 303 folio pages and was illustrated by 429 figures. It described such items as plants and animals, the diseases of the country, the uses of herbs as remedies, as well as the aboriginal inhabitants and their character and customs (only one section is devoted to the native population); see Gudger's article, 260-261.

<sup>52</sup> Robert Sibbald, quoted in F. Paget Hett, ed., The Memoirs of Sir Robert Sibbald, 1641-1722 (London, 1932), 64.

<sup>53</sup> [Sibbald], Autobiography, 28.

<sup>54</sup> The second volume, the "Description of Ancient and Modern Scotland, with a Scottish Atlas," was to have contained the material from Gordon, and from his own correspondents.

<sup>55</sup> Robert Sibbald, Scotia Illustrata, sive Prodromus Historiae Naturalis (Edinburgh, 1684), pt. 2, bk. 4, 48-49; 55.

<sup>56</sup> Robert Sibbald, The History, Ancient and Modern, of the Sheriffdoms of Fife and Kinross (Edinburgh, 1710), 25; see Piggott, "Antiquarian Thought," 112.

<sup>57</sup> Ibid. Sibbald did not have much to say on the origin of these; see Stuart Piggott, "The Ancestors of Jonathon Oldbuck," Antiquity 29 (1955):151.

<sup>58</sup> Robert Sibbald, Historical Enquiries Concerning the Roman Monuments and Antiquities in the North Part of Britain Called Scotland (Edinburgh, 1707), preface.

<sup>59</sup> This quotation is taken from Anonymous, Sibbald's History and Description of Stirling-Shire, Ancient and Modern (Stirling, 1892), 16-17, a reprint of part of the original work (which is dated here as 1707).

<sup>60</sup> Camden, Britannia, 1695 ed., col. 883. Sibbald's contribution to this work also included, besides the general additions to the section on "Scotland," a separate "Disclosure Concerning the Thule of the Ancients."

<sup>61</sup> Symson revised this work in 1692; it was published under the title: A Large "Description of Galloway" by Andrew Symson (Edinburgh, 1823), and was edited by Thomas Maitland, according to Mitchell and Clark, Geographical Collections, 2:xxviii; it is also contained in ibid., 2:51-99. For the life of Symson, see Maitland, Galloway, v-xvi.

<sup>62</sup> See Emery, "Geography," 8-9.

<sup>63</sup> Andrew Symson to Edward Lhuyd, May 1708, Oxford, Bodleian, Ashmole MS, 1817A, fol. 499. This work represents one of the earliest parish by parish surveys of any county, although it appears that Symson never had it published.

<sup>64</sup> Martin Martin, quoted in Frantz, English Traveller, 21.

<sup>65</sup> Martin Martin, quoted in ibid., 29.

<sup>66</sup> Martin Martin, A Late Voyage to St. Kilda, The Remotest of all Hebrides, or Western Isles of Scotland (London, 1698), preface.

<sup>67</sup> Ibid., 51, 271. The results of Martin's travels had previously appeared in "Several Observations in the North Islands of Scotland. Communicated to the Royal Society by Mr. Martin Martin," Philosophical Transactions 19 (1697):727-729.

<sup>68</sup> Donald J. Macleod, ed., "A Description of the Western Islands of Scotland" by Martin Martin (Stirling, 1934), 64-65.

<sup>69</sup> Ibid., 63. Many other seventeenth-century natural historians and scientists, such as William Molyneux, also upheld the notion of an affinity between the study of natural history and religion; see K. Theodore Hoppen, "The Royal Society and Ireland: William Molyneux, F.R.S. (1656-1698)," Notes and Records of the Royal Society of London 18 (1963):129. In many respects this outlook can be traced to Bacon himself who, according to Moody E. Prior, "Bacon's Man of Science," Journal of the History of Ideas 15 (1954):362, "represents his scientist as a religious man." Although to some extent, perhaps, Bacon considered it necessary to "defend the New Learning against the charge that it leads to atheism," conceding that "a little natural philosophy inclineth the mind to atheism," further consideration "bringeth the mind back to religion" (ibid., 362-363). For

Bacon, then, the glory of God is inspired by the (scientific) investigation of His works, and therefore he claimed that the New Philosophy does a service to religion. Nevertheless, according to Prior (*ibid.*, 363), for Bacon the true basis of religion was "the knowledge of God's will and law, matters which lay beyond man and hence were knowable only through divine speculation," so that in the long run Bacon did not presume to be able to attain to the mysteries of God solely through the contemplation of nature. Such matters, apparently, ~~were~~ knowable only through Divine revelation.

<sup>70</sup> See Mitchell and Clark, Geographical Collections, 2:219-223.

<sup>71</sup> *Ibid.*, 2:221.      <sup>72</sup> Emery, "Geography," 11.

<sup>73</sup> Edition of 1716, published in London.

<sup>74</sup> *Ibid.*, opposite the title page. Toland, perhaps best known for his inquiries into comparative religion, was also supposed to serve as Gibson's consultant on Ireland when the latter was putting together the revised Britannia. However, a quarrel between the two men soon put an end to this short-lived association.

<sup>75</sup> *Ibid.*, col. 1073.

<sup>76</sup> This quotation is taken from *ibid.*, col. 1075, which I have used instead of the original A Description of the Isles of Orkney (Edinburgh, 1693).

<sup>77</sup> James Wallace, An Account of the Islands of Orkney (London, 1700); also see Anonymous, "An Abstract of a Book, Viz. An Account of the Islands of Orkney. By James Wallace, M.D. and Fellow of the Royal Society. To Which is Added, an Essay Concerning the Thule of the Ancients," Philosophical Transactions 22 (1700):543-546.

<sup>78</sup> See Emery, "Geography," 11. The extent of the interaction among the natural historians is further exemplified by Nicolson's correspondence with Lhuyd, which ranged over subjects such as the comparison of Cumbria and North Wales, described here as "much of a piece" in their natural history (Oxford, Bodleian, Ashmole MS, 1816, fol. 454f.).

<sup>79</sup> See the comments on Leigh in the letter of Richard Rawlinson to Edward Lhuyd, 14 September 1701, Oxford, Bodleian, Ashmole MS, 1817A, fol. 278.

<sup>80</sup> For example, see Charles Leigh to William Musgrave, 5 January 1685, Gunther, Science in Oxford, 12:250-251, which contains references by Leigh to Plot's lectures and experiments.

<sup>81</sup> Charles Leigh, The Natural History of Lancashire, Cheshire and the Peak in Derbyshire (Oxford, 1700), 65, 75, 80.

<sup>82</sup> Ibid., 62, 100-101. Leigh also describes the head of a "Stag of Canada" found eight yards within Marle in Lancashire, stating that (page 184): "These Creatures being

Foreign to this Island, I think, sufficiently demonstrate the Universality of the Deluge."

<sup>83</sup>Ibid., 99, 119-120.      <sup>84</sup>Ibid., preface.

<sup>85</sup>Ibid., 64-65.

<sup>86</sup>Lhuyd possessed, if not the actual book, a copy of Leigh's proposals for his Lancashire, on which he jotted a drawing of a marine plant, with some notes. Leigh's biographer in the Dictionary of National Biography, "C. W. S.," claims that all of Leigh's writings are of little value.

<sup>87</sup>The correspondence between the two men is contained in Oxford, Bodleian, Ashmole MS, 1816, fols. 397-443, amongst other places.

<sup>88</sup>Edward Lhuyd to John Morton, 15 May 1700, London, BL, Sloane MS, 4063, fol. 25.

<sup>89</sup>Edward Lhuyd to John Morton, 2 April 1704, ibid., fol. 243.

<sup>90</sup>Morton, "Proposals."      <sup>91</sup>Ibid.

<sup>92</sup>John Morton to Hans Sloane, 22 June 1706, London, BL, Sloane MS, 4040, fols. 183-184.

<sup>93</sup>John Morton, The Natural History of Northamptonshire (London, 1712), 14-17.

<sup>94</sup>Ibid., 19.      <sup>95</sup>Ibid., 14-15.      <sup>96</sup>Ibid., 26.

<sup>97</sup>Ibid., 75, 97.      <sup>98</sup>Ibid., 345.      <sup>99</sup>Ibid., 538.

<sup>100</sup>See Oxford, Bodleian, Ashmole MS, 1816, fol. 442.

<sup>101</sup>Morton, Northamptonshire, 97.

<sup>102</sup>See Gunther, Science in Oxford, 14:270.

## CHAPTER X

### CONCLUSION

. . . all the main Heads of Natural History have receiv'd aids and increase from the famous Verulam, who led the way to substantial Wisdom, and hath given most excellent Directions for the Method of such an History of Nature.<sup>1</sup>

The study of localities or regions made considerable progress in the seventeenth century. It was not, however, an entirely new subject, as the works of the ancient geographers such as Solinas<sup>4</sup>, Strabo, and Ptolemy had originally established such study long ago. The voyages of discovery, buccaneering and trading of the sixteenth century, the vision of colonising the new-found lands of America, as well as other factors, all helped to stimulate interest in the subject during the late sixteenth and the early seventeenth centuries. Before the work of John Leland, Britain had a tradition of regional study, but it was not firmly established and the chronicles that were produced contained perfunctory descriptions; so that examples of the genre were disparate. Leland, who sought to glorify his native England by the presentation of chorographic and antiquarian information, inaugurated a steady stream of chorographic literature. Most subsequent chorographers recognized the importance of his work and

sought to imitate it. From their point of view, chorography constituted a distinct genre, a branch of antiquarian study. Writers who came much later still acknowledged their debt to their sixteenth-century predecessors. Nathaniel Salmon, the eighteenth-century surveyor of Surrey, regarded his own work as following as much in the tradition of Camden as Aubrey. He expressed his "Acknowledgment to all those Gentlemen [i.e., regional writers] who have gone before me," while accepting the extensive use of documentary sources such as Camden. Therefore, as far as Salmon was concerned, since "Mr. Camden's and Mr. Aubrey's Labours were intended for general Use," both were of equal value to his own research.<sup>2</sup>

Although F. Smith Fussner and others have described the late sixteenth- and early seventeenth-century emergence of empirical theories of history in general, and have outlined the development of antiquarian researches, such approaches are usually confusing and lack unity. While modern authors tend to show clear evidence of the wide range of historiography during this period, they do not always demonstrate how one specific body of historical or antiquarian writings developed in form and function as time progressed, and as newer ideas replaced the old. This is the case, for example, with Fussner's Historical Revolution, where one finds short analyses of historical writing (universal, theoretical, territorial, local, and problematic); but these analyses do not show the continuity of each

as the century went by.<sup>3</sup> Thus, although the new techniques, attitudes, and facilities that were developed for historical and antiquarian research have been examined rather closely, there is plenty of room for studying these in the light of a particular context, or body of literature, and over an extended period of time.<sup>4</sup> The investigation of seventeenth-century regional studies has presented the opportunity of redressing, in part at least, this situation, while at the same time examining an entire field which has been relatively neglected. This neglect is especially surprising when one considers that the body of regional writings allows one considerable scope for an integrated study of both historical and antiquarian methodologies. Gradually, the men involved in regional study came to be more involved in the disinterested reconstruction of the past based on the study of antiquarian material remains, than in the polemical, political, or legal value of antiquarian or historical data, which was left the preserve of men engaged in civil history. Less and less, therefore, did the regional writers treat a subject for discussion on a strictly historical-topographical basis. There was, in fact, a growing objective attitude on the part of most authors, who preferred to make few personal comments or criticisms, content to allow the facts to speak for themselves. There are fewer signs of contempt for Catholicism, but the patriotic pride in their own regions

and in their native countries remained strong. Most of the works, be they chorographies or natural histories, exhibit many variations in style, but by and large they display basic similarities and virtues. For example, the authors are frequently motivated by no other purpose than a practical one--to communicate truthfully what they have witnessed. At the very least, they quite consciously eschewed ornamentation in their narrative. But certainly most of these were deliberately written as a literature of a sort, and some authors who were more aware of an audience and more enthusiastic about their subject matter than others sought to convey as effectively as possible their own impressions of what they had witnessed or examined.

The earliest works therefore, the chorographies, formed a new genre in English literature as much as did the travel and voyage narratives of Elizabethan literature. As a body they aided greatly in undermining the Elizabethan view which considered history more in terms of the remote than of the immediate past. When Elizabethans talked of histories, they generally had in mind the lengthy chronicles or the works of such Classical historians as Livy, Herodotus, Tasso, etc. But the chorographers were in the forefront in making history "perhaps the most prized learning in Tudor England because it seemed the most immediately useful."<sup>5</sup> Just as the natural historians of the latter part of the seventeenth century promoted the practi-

cal usefulness of knowledge of natural phenomena, so too does one find statements of the utility of history in the chorographic literature. This attitude is immediately suggested by the fact that many chorographers were inclined to emphasize the historical element of their work over topography. In some cases, in fact, topography or geography were considered as the subject matter of history, thus justifying their inclusion in chorographic literature.

The authors of these works were largely country gentlemen about whom usually little is known beyond their education or their participation in regional study. In some cases, details of their existence may be construed from their participation in other phases of Elizabethan or Stuart life, and from their works other than their regional studies. As was shown, their chorographic productions were more or less comprehensive descriptions of counties and towns, often combining geographical and historical information with notes on the local families and antiquities. As Fussner states: "Such works probably served as guidebooks and introductions to local history, but primarily they conveyed some information about the history and topography of the area and about contemporary life"; that is why they are "of considerable interest to present-day historians who want to know what the Tudors thought important in their own society and in their own past."<sup>6</sup> Their array of topographical-historical-genealogic materials

contains a great deal of information about economic resources, agriculture, and the contemporary social setting. It is astonishing how much of what they described yet survives, and one has to be grateful that the regional writers recorded what they did, and when they did. This is still true if one remembers that they also recorded the type of dry local and national history that the modern reader will be glad to ignore. Equally superfluous to any reader but the specialist are the lengthy passages of genealogy that occur in some works.

Even if they were faulty in performance or erratic in gathering notes, the chorographers usually had a clear idea of what they wanted to learn and convey about a region. Their task was often facilitated by the fact that they were familiar with the region they investigated. They asked questions about the landowning families and their origins, observed the extent of arable and enclosed land, noted the walls, gates, castles, parish churches, main streets and markets, suburbs, and staple industry of a town, and so on. Even if they simply preferred to record such observations, on the odd occasion their personal comments on these were set out. Their architectural knowledge was usually slight, as was their knowledge of surveying (except in John Norden's case), and much of their information was taken from books, inscriptions, local hearsay, or else was derived from their fellow chorographers.

Perhaps what is most perplexing about the chorographies is their use of sources. With limited access to dictionaries, bibliographies, library catalogues, record offices, or even the learned societies (most of which were in their formative stages of development), and with few previous researches to fall back upon, the magnitude of their task was enormous. Citations from local records, the earlier chronicles and other documentary evidence were common, and therefore many chorographies display a fair amount of random information and miscellaneous matter which do little to contribute to an organized schema or plan. Furthermore, authors were not always scrupulous in their use of evidence. Camden himself at times altered a form of a place-name from one edition of the Britannia to the next in order that it could better fit into some preconceived notion that he had of its origin. Douglas says of seventeenth-century scholars that: "sometimes they allowed the intensity of their beliefs to distort their use of evidence," and that Camden did not display "a sufficient regard for accuracy or a nice discrimination in . . . his choice of materials."<sup>7</sup>

But while freely acknowledging the defects in their work, one must also claim great merit for the chorographers. Their surveys were as often as not founded on an ample base of documentary evidence, which they located in the muniments and registers of old religious houses, churches, private collections, the public archives, Cotton's library, etc.

And, cumbrous as their arguments often appear to the modern reader, one can hardly fail to believe that they were honestly committed to the discovery of facts and truths. In most instances, men such as Camden were careful to base their narrative on documentary evidence rather than guess-work or preconception.<sup>8</sup> When documentary proof was not accessible, these men rarely resorted to conjecture; when they did, the general practice was to inform the reader that guesswork was involved. At other times all that was required of the authors was a keen eye and a reliable horse, in order to visually examine the places they describe. In general, their methodical scholarship marks a real advance beyond the desultory antiquarianism of the chroniclers, who were dismissed by John Earle, in his Microcosmographie of 1628, in these terms:

Hee is a man strangely thrifty of Time past. . . . Hee is one that hath that unnaturall disease to bee enamour'd of old age, and wrinckles, and loves all things (as Dutchmen doe cheese) the better for being mouldy and worme-eaten. He is of our Religion, because wee say it is most ancient; and yet a broken Statue would almost make him an Idolater. A great admirer hee is of the rust of old Monuments, and reads only those Characters, whose time hath eaten out the letters. Hee will goe you forty miles to see a Saint's Well, or a ruin'd Abbey: and if there be but a Crosse or stone footstoole in the way, hee'll be considering it so long, till he forget his journey. His estate consists much in shekels, and Roman Coynes, and he hath more Pictures of Caesar than James or Elizabeth. Beggars coozen him with musty things which they have rak't from dunghills, and he preserves their rags for precious Reliques. He loves no Library, but where there are more Spiders' volums than Authors, and lookes with great admiration on the Antique works of Cob-webs. . . . His chamber is hung

commonly with strange Beasts' skins, and is<sup>9</sup> a kind of Charnel-house of bones extraordinary. . . .

Chorography itself did not remain static. While in nearly all cases utilizing history as a base, the chorographers shifted the interest of their studies from geography (or, more specifically, topography) to both genealogy and heraldry. By the time of the English Civil War and Protectorate chorography apparently had lost a sense of purpose, with the workers in the field now viewing such occupation primarily as a solace in days of danger. But despite the suppression of the embryonic Elizabethan College of Antiquaries and of the Office of King's Antiquary, antiquarian studies continued to flourish in the later seventeenth century in Britain, with the regional writers once again coming to the forefront. It is somewhat ironic that the renewed interest--though in a different form--in antiquities and in regional study was in large part facilitated by the eclipse of chorography as an attractive scholarly pursuit. The new course was charted by the scientific ideas that were being promulgated by scholars such as Bacon and Browne, by the Fellows of the Royal Society, and by the new standard in scholarship established by Dugdale. Humanistic and scientific scholarship--fields conventionally seen as belonging to different and perhaps mutually exclusive traditions--were now combined in the person of the virtuoso, who used historical and natural

materials and scientific methods to make accurate statements of fact about both past and present, and who applied these to regional description.<sup>10</sup> The militant experimentalists of the Royal Society attacked speculative philosophy while attempting to define the proper province of their methodology. But before the consolidation of modern science was accomplished, original thinkers appeared at first timidly but later more assertively in the liberal atmosphere of Oxford. Before the ideas on natural philosophy found full expression, therefore, "It was only in the face of abnormalities or casualties that writers paused to consider phenomena belonging to the realm of Nature."<sup>11</sup>

Herbert Butterfield has pointed out that the history of science "could never be adequately reconstructed by a student who confined his attention to the few men of supreme genius," and the present study, therefore, is in part an attempt to chart the outlooks and researches of a particular group of contemporary natural philosophers, or natural historians, who did not necessarily possess great wisdom, but who played an important role in spreading the ethos of the scientific revolution.<sup>12</sup> Since no group of this kind can operate in isolation, it was relevant to examine the general intellectual background against which the regional writers, who were also exponents of the Baconian philosophy, prosecuted their studies. These regional writers relied heavily on the advice and assistance of the Royal Society,

of which many of them were Fellows, while some of their most important observations were published in the Society's Philosophical Transactions, founded in 1665 by Henry Oldenburg.

Bacon propounded a system, but his philosophy in many aspects was fragmentary and unsystematic, containing many ambiguous elements. Perhaps his preeminence lay as a visionary, supplying the psychological motivation for the New Philosophy. Also, despite his faults, Bacon believed that science should be advanced so as to establish "the power and dominion of the human race itself over the universe," and this spurred on the English scientific community, which generally accepted as its talismanic words "progress," "utility," and "truth."<sup>13</sup> Most of the regional writers of the second half of the seventeenth century adhered uncritically to the aims of Bacon, believing that the natural world must be studied because discoveries bear visible fruit. They, along with the other Fellows of the Royal Society, would have agreed with Robert Hooke, one of its most brilliant members, who succinctly set out the aims of the Society:

To improve the knowledge of naturall things, and all useful arts, manufactures, mechanick practices, engines, and inventions by experiments (not meddling with divinity . . . ). To examine all systems, theories, principles, hypotheses, elements, histories, and experiments, . . . practised by any considerable authors ancient or modern. In order to the compiling of a complete system of solid philosophy for explicating all phenomena produced by nature or art.<sup>14</sup>

Regional study was now characterized by at least two major features. First, the debt to Dugdale is evident in that regional study required an even more critical use of authorities, which had to be carefully compared with one another. The natural historians took this one step further, prescribing that such authorities should also be checked against natural phenomena known by means of experiment and observation. This implied a reliance upon experimentation and an attitude which allowed one to accept the results thereof, even if acceptance necessitated the rejection of Classical authority. Second, there was a growing faith in the ability of human reason to classify data and to arrive at conclusions from facts in order to formulate "laws" to which natural phenomena seemed to conform.

These regional writers collected most of their evidence from outside the traditional literary sources. Minerals, the accounts of changes in river courses and in other topographical features, etc., were sources generally overlooked by the chorographers. In the same fashion, the natural historians made precise drawings and plans of barrows and ruins, and recorded the archaic speeches of Wales, Ireland, and other parts of Britain. There was, then, a markedly increased awareness of a sense of process and change, a more vibrant feeling for the past. New developments in the techniques of investigation in the

natural sciences were not only adopted, but quite often initiated and developed by the regional writers, making possible new geological and archaeological approaches to the past. In any modern studies of the origins of such approaches, therefore, we find that the regional writers are usually--and quite justifiably--considered to be amongst the founders of these branches of scientific studies. The concern of the regional writers for intensively studying the natural history of a place was fostered primarily by the ideas of Bacon, who considered natural history as fact-finding, and who was concerned with the variety and peculiarity of things. Bacon conceived of knowledge as an hierarchical pyramid, with natural history as the essential basis, and metaphysics, as generalized physics, forming the apex.<sup>15</sup> This alone would have encouraged them to devalue the importance of civil history in their study of a region.

The enthusiasm for the inclusion of natural history in regional study, generated by the early workers in the field, was for the most part still unabated by the time the century came to a close. This is evident in the following suggestion, extrapolated from John Morton's "Proposals for Subscriptions" to his natural history (1704):

Indeed the Natural History of England would be an Undertaking of too great Weight and Extent for any one single Person; but it may be happily accomplished successively and by Parts. Would several Persons of due Skill, Application, and Abilities, engage in this work, and each take upon him the Search, and Survey of only a single County, we might hope to see the whole finished

in good time. Dr. Plot began in this Method, and the great Encouragement he met with from the Nobility and Gentry of Oxfordshire, and Staffordshire, the Natural History of which two Counties he wrote, show that such an undertaking is not like to be unacceptable in any other part of England. And indeed partly this, and partly the Commands of some Persons of great Note and Judgment have engaged me in the Composure of the Natural History of Northamptonshire. . . .<sup>16</sup>

It is perhaps significant that it was only as an after-thought that Morton added the following words to the above: "with some Remarks on the Antiquities thereof."<sup>17</sup> Regional study was now centred on the study of natural history, with the study of antiquities, even through scientific enquiry, of less importance.

The majority of the regional writers of the second half of the seventeenth century concretely expressed their faith in the harmony of science and religion, as did many of the other virtuosi, concluding that "the discoveries of natural philosophy would not contradict the teachings of Christianity which they believed in and practiced."<sup>18</sup>

Again, John Morton is representative of this attitude, as applied specifically to the study of natural history:

Whereas Exact Descriptions of Things, however small and seemingly contemptible: and faithful Accounts of what is observable in them, will always be of Use to those who study Nature, to what End soever that be: Whether to take a clearer View of the Infinite Wisdom of the Great Creator, in the Artful Contrivance of so vast a Variety of Organiz'd Bodies, which appear as remarkable in the smallest as in the largest Animals and Vegetables: or to enquire into the Structure of the Terrestrial Globe, and the Changes it has undergone: Or lastly, to improve or apply Natural Products of any Kind, to the Uses of Human Life.<sup>19</sup>

Morton's position is also revealed in his handwritten note which is found in one copy of Northamptonshire, which reads: "I will give Thanks unto Thee, O Lord, with my Whole Heart: I will speak of all Thy marvellous Works [of Nature]." <sup>20</sup>

This teleological approach to nature, which convinced British scientists of the late seventeenth century that God's benevolence was everywhere revealed in the universe, was perhaps given its best known topographical expression in John Ray's designation of mountains as serving eight specific and divinely ordained ends; which ranged from forming convenient political boundaries and creating habitats for upland dwelling flora and fauna, to being the seat from which rivers flow. In so mundane a thing as denudation, Ray could thus observe the workings of the Almighty:

. . . the Rain brings down from the Mountains and higher grounds a great quantity of Earth, and in times of Floods spreads it upon the Meadows and Levels, rendering them thereby so fruitful as to stand in need of no culture or manuring.<sup>21</sup>

Many others were equally convinced of the benevolence and power of God as displayed in nature, but this is not always clear in all of their writings. When Ray's friend Edward Lhuyd, for example, discussed the power of denudation, he "merely" displayed an inkling of the modern concept of morphoclimatic regions. Having reached the conclusion that the steepest slopes in Wales were to be found on the highest mountains, he reasoned:

This I can ascribe to nothing else but the Rains and Snow which fall on those great Mountains, I think, in ten time the Quantity they do on the lower Hills and Valleys. . . . I affirm That by this means not only such Mountains as consist of much Earth and small stones, or of softer Rocks, and such as are more easily dissoluble,<sup>22</sup> are thus wasted, but also the hardest Rockes in Wales.

Despite their juxtaposition of religion and nature, few of the regional writers were deeply original thinkers in the philosophy of science. Their major contribution to the New Philosophy, as a group, was in their leadership in the areas of empirical research and observation. Some of them, such as Robert Plot and Edward Lhuyd, were men of genius who contributed substantially to scientific knowledge. Others remained relatively obscure figures, tending to be followers of contemporary fashions in experiments and scientific disciplines. But then, a similar observation might be made of the membership of the Royal Society as a whole.

Similarly, throughout the entire period under investigation in this study, the regional writers who claimed to be exponents of the New Philosophy varied widely in outlook and, as in the case of John Aubrey and even Robert Plot, were often ready to abandon rational scientific beliefs when faced with disturbing religious or mystical phenomena. Right up to the end of the century there remained some tension between the "Ancients" and the "Modernes" within the field of regional study. In most cases, those who were hostile to the Baconian message, which stressed the immediate importance of fact-finding combined

with the interpretation of nature, tended to cling--almost as if out of desperation--to chorography as a vehicle for their investigations.

The conflict between Baconian and pre-Baconian philosophy was especially pronounced in the early years of the Royal Society, as seen in the thought and work of John Aubrey and Joshua Childrey. These two men displayed varying degrees of credulity in their studies, thus demonstrating substantially less scientific scruple than do most of the latter regional writers. Occasionally their means of verification was faulty. A typical example is Aubrey's belief in the tradition that when an oak is being cut down, "It gives a kind of shreikes or groanes, that may be heard a mile off, as if it were the genius of the oake lamenting." Aubrey, by way of verifying this tradition, merely adds that his friend "E. Wyld, Esq. hath heard it severall times."<sup>23</sup> The fascination of these early virtuosi with the freakish or monstrous also today seems to have been antithetical to sober scientific thought (unless, perhaps, one views such activity as having been based on a desire to rationally explain the mysterious). As for their continued interest in astrology, Keith Thomas believes that it was only because of the pretensions of astrology "to be a genuinely scientific system" that it retained its credibility for some time to come.<sup>24</sup> It began to slowly lose its appeal only after influential figures such as Thomas Hobbes began condemning

it as a mere "human device for mulcting the stupid populace."<sup>25</sup>

In most respects the regional writers were no different from the other scientific thinkers of the age who, although not necessarily protectors of traditional beliefs, still thought that the limits of the possible were wide and therefore warranted investigation. Although some men did not achieve greatness in scientific inquiry, their failure cannot be blamed on a backward-looking mentality. Stuart Piggott, a renowned archaeologist in his own right, called Aubrey an "engaging and whimsical dilettante," but in the next breath he acknowledged Aubrey's contribution to science:

. . . . when he [Aubrey] turned to prehistoric antiquities his collecting of notes came as near to system and method as his grasshopper mind could ever achieve, and his observations on such Wessex monuments as Stonehenge and Avebury are still of value, and show the beginning of what has become a great British tradition in archaeology, the study of field monuments by observation and survey without excavation.<sup>26</sup>

Similar observations may be made of many of the researches of the other regional writers and perhaps with even greater justification, for they built upon the edifice first constructed by Aubrey in the field of prehistoric studies. Thus, as we have seen, natural history was coupled with an early tradition of antiquarianism and historical scholarship to form the backbone of regional study in the late seventeenth century. The figure of the provincial

antiquarian, the scientist, and--to a lesser degree--the country historian, were all combined in the person of the regional writer.

In their work we see the birth of serious field studies. Utilizing new methods, the regional writers studied the antiquities of a region for themselves and not merely as one element in the cultural landscape. Regional study was no longer considered the realm of the rank amateur, whose major claim to such study lay in his legal training or in his familiarity with the area he investigated. It became, in the second half of the seventeenth century, the proper concern of the scientist, the man who had considerable interest and ability in the newly-developing, increasingly specialized fields of scientific enquiry. These included archaeology, geology, zoology, palaeontology, botany, chemistry, and so on. The chorographers and other writers on history had already covered the civil history of the various regions of Britain; now it was the turn of a new breed of investigators to pick up the torch, to expose and to explicate the natural phenomena of these regions. In so doing, this second generation of British regional writers borrowed certain ideas and methods from the chorographers. But, basically, their ability to apply new scientific ideas to their work was innovative and ingenious. A common thread, however, is that the unit most frequently investigated by both groups was the county or

region. Just as distance was a major factor in determining the area a chorographer could reasonably be expected to describe in a detailed and factual manner, the virtuoso-scientist who sought to examine the works of nature almost always decided that he alone could not adequately accomplish a detailed study of the seemingly infinite variety of natural phenomena of all of Britain. The only viable alternative was to focus in on one region and then to compare his findings with the similar studies of his fellow investigators.

The regional writers, in their archaeological exploits, were not searching for treasure. Aside from their scientific interests, they had a normal curiosity about the prehistoric sites and pre-Roman monuments which had long been prominent features of many part of Britain. It is not surprising that John Aubrey came originally from Wiltshire, which had more than its share of such sites. These men, through their studies, greatly helped to popularize such sites, to the extent that they soon became the tourist attractions they remain today. Of Stonehenge, the eighteenth-century archaeologist William Stukeley could write: "The mighty carcase of Stonehenge draws great numbers of people, out of their way every day, as to see a sight: and it has exercis'd the pens of the learned."<sup>27</sup>

Measurement became a basic part of archaeological field method during the seventeenth century, the most

frequently measured monuments being stone circles, barrows, and stone tools. The diameter of the first two was usually ascertained in terms of feet or yards, and often the height of any upright stones was also included in the calculations. But there still appeared to be little inclination to count types of artefacts, e.g., the proportion of long barrows to round barrows in a region usually went unrecorded, if not unnoticed. In this regard Aubrey, Plot, and the other regional writers were not overly concerned with the application of some sort of statistical analysis to the prehistoric sites they examined or to any artefacts they unearthed. But, at times, some of them did consciously set down field procedures, perhaps as a guide for others to follow. Furthermore, there was a growing tendency on their part to think in terms of maps, plans, and drawings rather than merely written description. This is seen in Aubrey's conceptualization of a land use map, in his sketch of Stonehenge (which is the first record of the series of depressions on the inner edge of the bank), in Plot's two major natural histories, which contained the first published British drawings of local stone artefacts, and in the work of the other regional writers. As Piggott states, the appearance of archaeological illustrations in the seventeenth century was intimately connected with the development of technical draughtsmanship in the natural sciences:

By the end of the seventeenth century we have the devoted production of fully illustrated catalogues, or material collected in corpus form, by such as Edward Lhwyd [Lhuyd] himself, polymathically turning from Celtic philology and antiquities to publish his 'collection of Figur'd Stones'; the fossils set out with Michael Burgher's engravings in the Lithophylacii Britannici Ichnographia of 1699. Such publications were now appearing in some numbers, stemming from the influence of the Royal Society and of the interest in the ordered presentation of natural and artificial phenomena implicit in the late seventeenth-century questionnaires, of which Lhwyd's<sup>28</sup> own Parochial Enquiries are a representative.

Only a minority of the artefacts and structures known to belong to ancient times could be directly related to written records. This only served to widen the distinction between archaeology and history. By 1717 this distinction was considered important enough that an article was omitted from the Philosophical Transactions because it was regarded as "being chiefly Historical, [therefore] it seems not so properly the subject of these Transactions."<sup>29</sup>

The regional writers, as antiquaries, were faced with the task of trying to make sense of problems such as determining the date and method of construction, function, and value within society of ancient artefacts, manuscripts, etc. In this some progress was made. Plot, for example, speculated on the flake scars on flint points while trying to recognize some of the processes involved in their manufacture, and arrived at the correct conclusion that they had been worked with a tool.<sup>30</sup> Both he and Lhuyd were, perhaps, the first to attempt to determine the possible uses

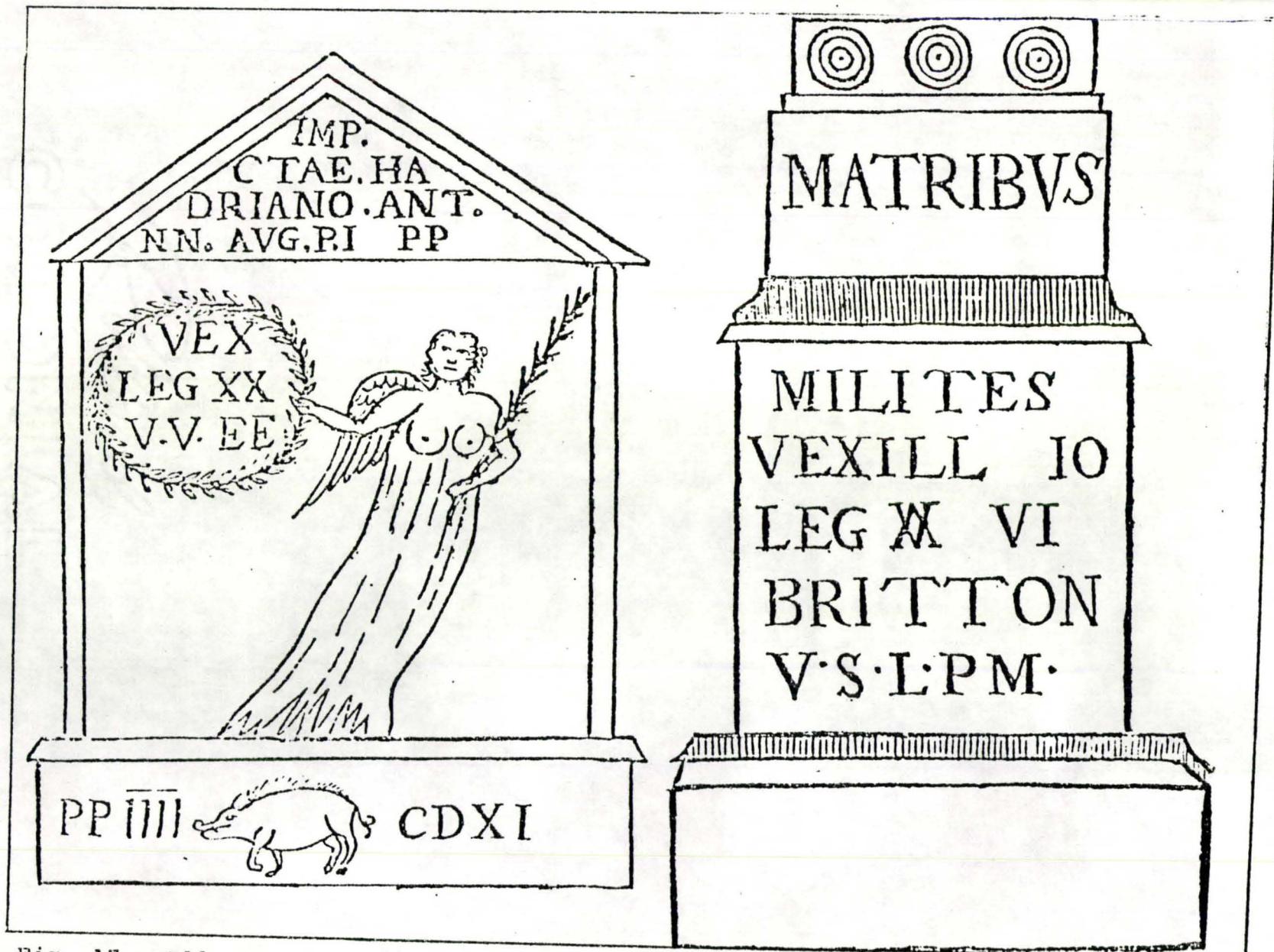


Fig. 17. Illustration of Roman Inscriptions, from Gibson's Edition of the Britannia

for stone tools, largely through analogy with Indian and Oceanic uses for similar artefacts. As for the problem of dating, these investigators could not rely on artefact typologies in establishing a relative chronology for a given area, even if they had thought of this method. This was due to the relatively limited number of sites and artefacts which, up to then, had been examined. They had to rely on a simple sort of deductive reasoning, as seen in Aubrey's assignment of the scattered stone circles of Britain to a period before political organization, and thus before the Roman occupation. This objective concern for field monuments and artefacts was an integral part of regional study in the second half of the seventeenth century, and the importance of such studies to early archaeological investigation in general cannot be overestimated. Aubrey was undoubtedly the founder of British field archaeology, just as Plot was one of the founders of natural history. Anyone contemplating the production of a regional study had to decide which of the two fields was to be emphasized in their work, i.e., the natural historical side or the antiquarian one. In some cases a relative balance was struck, but in most instances the interests and abilities of the man dictated the final outcome; usually natural history won out.

What may be stated with certainty is that seventeenth-century field archaeology was partly a by-product of the great range of antiquarian work motivated,

as Douglas has emphasized, by the search for precedent in ecclesiastical and political matters.<sup>31</sup> New questions were being asked based on information gained in the field, and the answers to these were to eventually provide fresh insights into the origins of the pre-Roman peoples of Britain. This invariably meant, however, that the regional writers, as pioneers, implanted some tenacious misconceptions in the public mind. Aubrey, for example, gave substance to the false notion that stone circles were the work of Druids.<sup>32</sup> But such false explanations are perhaps unavoidable where any new approaches to human inquiry are concerned.

Closely related to the interest of the regional writers in archaeology was their involvement in geological and palaeontological pursuits. It only needs to be said that, in cataloguing the strata and fossils of Britain, at least some of the regional writers understood that they were founding a new science. Yet they remained unaware of its full implications. Fossils especially were used as important elements in any account of the history of the earth. They were utilized to support either the theory of their inorganic or their organic origins. Lhuyd was particularly active in the collection and classification of fossils, but in general this is one field where non-regional writers led the way; like Lhuyd, they regarded Martin Lister as "the first great discoverer of our country fossils."<sup>33</sup>

Perhaps the greatest contribution of the regional writers to future science was their effectiveness in slowly building up a body of data. This was partly accomplished by recording their findings in learned journals such as the Philosophical Transactions, and by reporting them to the scientific societies, many of which they had helped to organize. Future researchers would now have access to information outlining where the greatest concentration of certain types of archaeological sites were located and, in some instances, would have the details of those sites at their fingertips.

Scientifically-oriented men often became interested in antiquarianism because of their awareness that the English Civil War had fractured the continuity of English social culture. Valuable relics of the past had been destroyed, and many men came to the realization, as the conflict progressed, that it was essential to preserve the fragments which still remained. In Aubrey's case the desire to preserve nearly everything resulted in the indiscriminate and voracious amassing of various details, epitaphs, inscriptions, anecdotes, and so forth, and constituted what might be labelled as an "antiquarian labour of love." Despite the historiographical weaknesses of his work, however, Aubrey combined the systematic researches of the Royal Society to add new life in the 1660s to regional study. He accomplished this while building upon the post-

civil war revival of interest in regional study, and in the study of antiquities, which William Dugdale had stimulated.

It seems logical to conclude that, overlooking natural history, many of the most important scientific achievements of the regional writers resulted from their antiquarian pursuits, and that science and antiquarianism were mutually reinforcing areas of human thought. In this respect, a scientist searching for the antiquities of a region was not as retrogressive as one might at first think. Over the course of the seventeenth century antiquaries had progressed from mere awareness of antiquities to the actual measurement and investigation of the "shipwrecks of time," as Bacon called them. Thus, history was studied more methodically and natural history was approached more scientifically. As the scientists acquired an increasingly sophisticated perception of the past, many of them chose to apply this perception to their study of the regions of Britain. The linkage of science and history was eventually to produce an historical science of the earth, and a large share of the credit for this has to go to the men engaged in regional study in late seventeenth-century Britain.<sup>34</sup>

Whether involved in antiquarianism or in natural history, men began to recognize that they could not always depend on written reports and the reports of witnesses, but that first hand observations were also required; that stories of fabulous and mythical beasts, or even of men such

as Brutus, needed dispelling, and that impartiality was the key to accurate investigation. It was thought that even conjecture, which was sometimes unavoidable in the absence of hard data, would prove beneficial if it was accompanied by meticulous experiment and accurate observation. Truth, therefore, might be reached through the use of induction and experiment. Nevertheless, the men involved in regional study, the natural historians, appeared to have been considerably less inclined to theorize than were many of the other virtuosi (on whom Bacon may have had less of an influence). Few of the regional writers, examined in the present study, bothered to explore in any systematic way such methodological and epistemological problems; they left that to men such as Hooke, Hobbes and Newton. Perhaps it is exactly for this reason that the natural historians usually take a back seat to mathematicians, physicists, and other scientists where histories of science and philosophy are concerned; and so the regional writers of the second half of the seventeenth century have been largely overlooked.<sup>35</sup>

On certain occasions the natural historians themselves found it impossible to avoid totally the use of documentary evidence. Also, their explanations of the physical changes they observed in geology were often fitted into the scriptural account of the earth's past, i.e., the Creation and the Great Deluge or Flood. They, like many of the other scientists of the late seventeenth century, were

not averse to becoming involved in chronological studies or in scriptural commentary, although it seems that many of the regional writers preferred to leave such studies to the ecclesiastical historians, who were increasingly treating scripture as historical documents. By the mid-eighteenth century elegant language and literary values seemed to be of more concern to anyone involved in regional study, at least after the first few decades of the century. And so, few workers in the field retained the same spirit of scientific enquiry as did Lhuyd, for example. Lhuyd was aware of the passing of an age-old culture, especially in Wales, a culture previously jealously safeguarded by guilds of bards throughout the ages. It was now "in extremis" because the guilds had been eliminated, the result of their loss of patronage following the social and political changes going back to the Tudors. Lhuyd therefore considered himself quite fortunate to meet anyone who still possessed knowledge of the old traditions and languages.<sup>36</sup>

As the eighteenth century progressed the writing of regional works continued unabated, largely invigorated by the Romantic Movement. But a great deal of the interest in antiquities was now directed to the study of Classical rather than British antiquities. The ancient Britons, the Druids, and the sites and artefacts attributed to them were now being romanticized. Only a minority of the investigators, with the exception of William Stukeley, were

seriously involved in science or in the scientific circles of the day. The interest in the natural history of a region therefore also suffered a considerable decline by mid-century, and was primarily rekindled by the activities of the Board of Agriculture which had been set up near the end of the century to stimulate landowners to follow the newly-developed agricultural techniques. As Allen points out, as the "exceptional generation" of seventeenth-century naturalists began to pass away, thus causing a drastic reduction in the total number of naturalists in the ranks of the Royal Society, by the 1720s the result was a marked narrowing in the Society's outlook as a whole.<sup>37</sup> When in 1719 the Cornish ornithologist Walter Moyle bemoaned the fact that he could find "no room in Gresham College for Natural History," adding the comment that "Mathematics have engrossed all," William Wotton had already (in 1694) sought to explain why "Natural and Mathematical Knowledge . . . begin to be neglected by the generality of those who would set up for Scholars," and John Locke had only reluctantly admitted Natural Philosophy into the school curriculum, while ignoring antiquities, in his Thoughts Concerning Education (1693).<sup>38</sup> It is no wonder, therefore, that "The golden age of the virtuosi was over," for the most part.<sup>39</sup> In fact, if there are any exceptions to this statement, they are to be found mainly in the work of some of the early eighteenth-century regional writers, including John Morton.

After them came men who tended to "paint the landscape" in terms which were much more figurative than those of their seventeenth-century predecessors.

It could be argued that in some respects regional study had gone the full circle between the mid-seventeenth and mid-eighteenth centuries, with the pioneering scientific researches of the natural historians providing the main break between the two periods.<sup>40</sup> All of the most important eighteenth-century works were significantly closer in appearance to the early chorographic literature than to the natural histories. This group included many of the following studies: John Harris's The History of Kent (1719); the several works by Nathaniel Salmon; John Bridges's The History and Antiquities of the County of Dorset (1774); Edward Hasted's The History and Topographical Survey of the County of Kent (1778-99); and Samuel Rudder's A New History of Gloucestershire (1779).

This is not to say that there were absolutely no exceptions. Some eighteenth-century regional writers did inherit, even if unconsciously in some cases, the tradition developed by their late seventeenth-century predecessors. The basis of a gentleman's education continued to be scripture as well as the classics, and in a few quarters the trend toward quantification in natural science continued to increase. That antiquarianism and natural history did not completely fade away is reflected in the continued establish-

ment and growth of scientific societies, such as the Linnaean Society and the Society of Antiquaries, the latter formed in London on much the same lines as had been the earlier Elizabethan Society of the same name. "The world of natural history," however, "came to exist almost solely on paper."<sup>41</sup> But even the odd regional writer maintained an interest in science. William Borlase, for example, in his The Natural History of Cornwall (1758) followed Plot in the framework for a natural historical study, while devoting one volume of this work to antiquities.

Generally, then, during a good part of the eighteenth century fieldwork and the exact study of natural phenomena disappeared from regional study, even if topography still had its place. The public seemed to accept this situation without much displeasure. This is in contrast to the late seventeenth and early eighteenth centuries when a critical public had soon learned to discriminate against regional work that neglected natural history and scientific antiquarianism. For this very reason, Sir Henry Chauncey's Historical Antiquities of Hertfordshire (1700) had been "not much commended," and William Sacheverell's Account of the Isle of Man (1702) was reported by one astute observer to make "but a small figure here" (i.e., London).<sup>42</sup> Martin Martin perhaps stated the situation most succinctly: "Description of Counties without

the Natural History of them are now justly reckoned to be defective."<sup>43</sup>

It was not until the end of the eighteenth century that there occurred a significant leap in interest in natural history, partly due to the activities of the Board of Agriculture, partly Linnaean in inspiration, and partly the result of the growing interest of rich collectors in acquiring cabinets of natural "curiosities" in their pursuit of self-aggrandizement. (Unlike Cotton's cabinet, however, theirs was not based upon a useful consideration of the value of scientific endeavour). These factors, combined with the influential interest generated within the court circles of George III for natural history, went hand in hand with the discovery of the picturesque, and with the general aesthetic advance associated with the Romantic outlook. But now the lead in the study of natural history had fallen from the hands of the regional writers to others--and even then not necessarily into the hands of scientists:

The results of this for natural history were not altogether happy. In a few, rare cases the power of observation, and even more the later recording remained . . . unclouded and understated. . . . Far more often the eye misted over, the pen trembled, Sense gave out as Sensibility came in. The accepted approach to nature had become no longer to set down what one saw plainly and accurately; the aim now was to record one's reaction--and the livelier these reactions appeared, the more beneficial, the more exciting, the more "tasteful" the contact with nature was assumed to have been.<sup>44</sup>

It is significant that "For fifty years after 1705 not one British scholar made a contribution of any

significance to the literature of geomorphology," a period which saw the production only of "scraps of material in this field culled from the publications of untutored travellers, second-rate topographers, and long-forgotten clerics."<sup>45</sup> Natural history and the earth sciences at this time provided little scope, except for mineralogy, for the type of serious taxonomic work which had now become favoured by the majority of researchers; researchers who were strongly imbued with the Linnaean desire for classification.<sup>46</sup> It was only in the last decade of the eighteenth century that British interest in geomorphology was totally restored. When one considers scientific antiquarianism in general, one discovers, similarly, that by the eighteenth century it was being conducted by men with few pretensions to archaeological learning. Its eclipse lasted even longer, so that by the middle of the nineteenth century any remaining interest in prehistoric archaeology came in the form of "a companion to the all-pervading interest in Gothic."<sup>47</sup>

\* \* \* \*

In conclusion, it may be said that even though the seventeenth century does not form a natural unit in the history of British regional study, divided as it is into the two basic types of chorography and natural history-scientific antiquarianism, it is hoped that by explicating

the most significant works of this period the present study has revealed not only the differences but also the connective tissue between the two. The mighty sixteenth-century tomes of Leland, Lambarde and Camden had laid out the paths for others to follow, allowing them to describe the past and contemporary history and geography of Britain, her institutions and folkways, and the pleasant appearance and bounty of her regions and her proud cities. These works, once they were produced, soon found ready outlets. A growing number of people spent their leisure hours lost in the wonders of Britain as revealed in these descriptive works, many of which were handsome volumes to look at in their heavy bevelled and sometimes embossed boards, and with much of the narrative enhanced by lavish illustrations or stylized maps.

As the seventeenth century progressed, regional study contributed greatly to new standards of scholarship. Even judged by the standards of their own day, and taking into account their limitations in knowledge, the hypotheses of the regional writers were generally sound, and were distinguished by a growing historical and scientific sophistication. However, whether the work was a chorography or a natural history, one thing is certain: its purpose was to give the region it covered national fame. The total effect was also one of displaying to the whole world the human and natural resources of the entire nation. Thus, the

men who executed these works of merit, and the works themselves, are entitled to a prominent place in the literary canon of seventeenth-century Britain. And so, Britain was as thoroughly described or "painted" as the fact-finding techniques of the age permitted, and as the attractiveness of her landscape invited.

## NOTES: CHAPTER X

<sup>1</sup>Joseph Glanvill, Plus Ultra: Or, the Progress and Advancement of Knowledge Since the Days of Aristotle. In an Account of some of the most Remarkable Late Improvements of Practical, Useful Learning (London, 1668), 75.

<sup>2</sup>Nathaniel Salmon, Antiquities of Surrey (London, 1736), preface.

<sup>3</sup>It is interesting to note that very little study has been done of the antiquaries or the historians of the period 1640-60, i.e., in the interval between the time of Fussner's "historical revolution" and the period covered by Douglas's English Scholars, 1660-1730.

<sup>4</sup>The possible exception to this statement might be the political and legal bodies of writing, areas in which some research has been conducted.

<sup>5</sup>Lily B. Campbell, Tudor Conceptions of History and Tragedy in "A Mirror for Magistrates" (Berkeley, 1936), 2.

<sup>6</sup>F. Smith Fussner, Tudor History and the Historians (New York, 1970), 277.

<sup>7</sup>Douglas, English Scholars, 23, 165.

<sup>8</sup>In Kent Surveyed, attributed to John Philipot, the author purported to rely on "common Records, . . . [on material] shut up in the private Muniments, Escripts, and Registers of particular Families. . . ." ("To the Reader").

Edward Leigh, meanwhile, in England Described, cited as his major sources the following chorographers, whose books he had "perused": Leland, Camden, Lambarde, Stow, Drayton, Burton, Norden, Carew, Somner, Dugdale and Daniel King.

<sup>9</sup> John Earle, Microcosmographie, ed. A. S. West (London, 1897), 57-58.

<sup>10</sup> The modern writers who have emphasized the conflict between science and the humanistic disciplines include: Douglas Bush, Science and English Poetry: A Historical Sketch, 1590-1950 (New York, 1950); Herschel Baker, The Wars of Truth: Studies in the Decay of Christian Humanism in the Earlier Seventeenth Century (Cambridge, 1952); and C. P. Snow, The Two Cultures and the Scientific Revolution (Cambridge, 1959).

<sup>11</sup> Taylor, Stuart Geography, 85-86. "The more popular earlier standpoint," states Taylor (page 86), ". . . was that Nature's mysteries were not intended to be unravelled, a knowledge of them being a prerogative of the Deity."

<sup>12</sup> Herbert Butterfield, Man on His Past (Cambridge, 1955), 32.

<sup>13</sup> Bacon, Works, 4:114.

<sup>14</sup> Written by Hooke in 1663 and quoted in H. Lyons, The Royal Society 1660-1940: A History of its Administration under its Charters (Cambridge, 1944), 41.

<sup>15</sup> See Sir Francis Bacon, The Advancement of Learning (London, 1605; reprint ed., London, 1915), 95.

<sup>16</sup> Morton, "Proposals," fol. 79. This passage is an elaboration of what was quoted from the same work in Chapter Nine.

<sup>17</sup> Ibid.

<sup>18</sup> Richard J. Westfall, Science and Religion in Seventeenth Century England (Cambridge, 1958; reprint ed., Ann Arbor, 1973). Sir Thomas Browne was one of the first to consider such intellectual endeavours as a form of repaying God for having endowed man with reason. A favourite idea of Browne's was that "Man's special gift of reason impelled him to glorify God through the pursuit of knowledge as well as through religious worship," according to Nathanson, "Sir Thomas Browne and the Ethics of Knowledge," 13.

<sup>19</sup> Morton, Northamptonshire, ii.

<sup>20</sup> Ibid.; the note is located immediately before the title page.

<sup>21</sup> John Ray, Wisdom, 3rd ed. (London, 1701), 199-206; also see Gordon L. Davies, "The Concept of Denudation in Seventeenth-Century England," Journal of the History of Ideas 27 (1966):281. In the Preface of the fourth edition of Ray's Wisdom Ray had written:

Note that 'by the Works of the Creation in the bible, I mean the Works created by God at first, and by him conserved to this Day in the same State and Condition in which they were at first made; for Conservation, accord-

ing to the Judgment both of Philosophers and Divines, is a continued Creation.

<sup>22</sup> See Lankester, Correspondence of John Ray, 242.

<sup>23</sup> Britton, Wiltshire, 53.

<sup>24</sup> Keith Thomas, Decline of Magic, 636.

<sup>25</sup> Thomas Hobbes, Opera 2 (1839), 127, quoted in Lynn Thorndike, A History of Magic and Experimental Science, 8 vols. (New York, 1923-58), 7(1958):74-75.

<sup>26</sup> Stuart Piggott, British Prehistory (London, 1949; reprint ed., London, 1955), 10.

<sup>27</sup> William Stukeley, Palaeographia Britannica: or Discourses on Antiquities in Britain (London, 1743), 15. Stukeley's interest in some of these sites was probably aroused by his reading, in 1719, a transcript of Aubrey's "Monuments Britannica": see Stuart Piggott, William Stukeley, 45.

<sup>28</sup> Piggott, "Archaeological Draughtmanship," 171.

<sup>29</sup> See John Tabor "An accurate Account of a Tessellated Pavement, Bath, and other Roman Antiquities, lately discovered near East Bourne in Sussex. Being part of a Letter of January 26, 1717, from the learned Dr. John Tabor of Lewis, to Dr. John Thorpe, R.S.S. and by him communicated to the Royal Society," Philosophical Transactions 30 (1717):563.

<sup>30</sup> Plot, Staffordshire, 397.

<sup>31</sup> Douglas, English Scholars, passim.

<sup>32</sup>See Stuart Piggott, The Druids (London, 1968), 143-145.

<sup>33</sup>Edward Lhuyd to William Nicolson, 20 April 1698, Gunther, Science in Oxford, 14:362.

<sup>34</sup>Sir Matthew Hale, The Primitive Origination of Mankind (London, 1677), and Margaret C. Jacob, The Newtonians and the English Revolution, 1689-1720 (Ithaca, 1976), have more to say on this and related subjects.

<sup>35</sup>Fussner, Tudor History, 245, speculates that there might be a "connection between the methods of history and science," noting that "This is still a dark plain, on which anyone may stumble."

<sup>36</sup>Lhuyd was one of the first to foresee the impending decline in natural history. On 15 October 1695, Lhuyd complained to Lister (Oxford, Bodleian, Lister MS, 36, fol. 133) that none of the divines and few masters of colleges at Oxford were "sensible of the value" of natural history.

<sup>37</sup>Allen, Naturalist in Britain, 18. Allen, ibid., 17, believes that perhaps "the very brilliance of the Royal Society under Newton helped to ensure an unusual violence in the inevitable reaction," i.e., there had occurred a swing away from empirical thought altogether after Newton's death in 1727. As far as British natural history as a whole is concerned, Allen rightly identifies the period 1725-60 as "largely a blank," except for "signs of energy in entomology"; ibid., 15-16.

<sup>38</sup> Walter Moyle, quoted in *ibid.*, 18; William Wotton, Reflections upon Ancient and Modern Learning, 2d. ed. (London, 1697), 418-419; John Locke, Thoughts Concerning Education (London, 1693), secs. 181, 174, 190-194, 197, 203.

<sup>39</sup> Houghton, "English Virtuosi," 219.

<sup>40</sup> It would not be inappropriate to apply Allen's statement (in Naturalist in Britain, 17-18) that "scientific genius tends to display itself in sudden, brief bursts of magnificent intensity followed by long periods of comparative darkness," to the particular context of the history of British regional study.

<sup>41</sup> *Ibid.*, 20-21.

<sup>42</sup> These were the comments of Thomas Tanner (Oxford, Bodleian, Ashmole MS, 1817B, fol. 9), and Tancred Robinson (*ibid.*, MS 1817A, fol. 344), respectively.

<sup>43</sup> Martin, Western Islands, preface.

<sup>44</sup> Allen, Naturalist in Britain, 54.

<sup>45</sup> Gordon L. Davies, The Earth in Decay: A History of British Geomorphology 1578-1878 (London, 1969), 96.

<sup>46</sup> *Ibid.* Davies (page 31) refers to the death of Ray in 1705 as "a convenient terminus to that first phase in the history of British geomorphology. . . ."

<sup>47</sup> Stuart Piggott, "Prehistory and the Romantic Movement," Antiquity 11 (1937):35; also see Piggott's "The Origins of the English County Archaeological Societies," Archaeological Society 86 (1974):1-15.

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<sup>e</sup>Davis, Godfrey. Bibliography of British History: Stuart Period, 1603-1714. Oxford, 1928.

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