THE "LIVING FORM" OF BLAKE'S PICTORIAL STYLE

VISIONARY IDEOLOGY AND THE VISUAL IMAGE: THE "LIVING FORM" OF BLAKE'S PICTORIAL STYLE

By

JAMES ANDREW MARTIN

A Thesis

Submitted to the School of Graduate Studies

in Partial Fulfilment of the Requirements

for the Degree

Master of Arts

McMaster University

MASTER OF ARTS (1993) McMASTER UNIVERSITY

(English) Hamilton, Ontario

TITLE: Visionary Ideology and the Visual Image:
The "Living Form" of Blake's Pictorial Style

AUTHOR: James Andrew Martin, B.A. (Trent University)
B.Ed. (Queen's University)

SUPERVISOR: Dr. Brian John

NUMBER OF PAGES: viii, 93

ABSTRACT

This thesis explores the relationship between William Blake's pictorial style and the rational, empirical values that characterized the age in which he lived. Blake revolted against the systematization of art in eighteenth-century England and rejected the scientific principles that supported linear perspective and the illusionist aesthetic. He held that visual art should produce conceptual images rather than emulate fallen, corporeal perception of the material world. This conviction came in response to the scientific reasoning that influenced art during the Enlightenment and threatened to turn artists into mechanical labourers governed by the laws of optics.

After examining the influence of science and mathematics on visual art in the Age of Reason, this paper focuses on Blake's repudiation of linear perspective. This study concludes with a discussion of compositional schemata in Blake's designs, modifying the interpretations offered in W.J.T. Mitchell's *Blake's Composite Art* and Stewart Crehan's *Blake in Context*. The observations put forward in this final chapter are supported by a detailed analysis of *The Ancient of Days*.

ACKNOWLEDGEMENTS

I would like to thank Dr. Orm Mitchell for fostering my interest in Blake. I am also grateful for the encouragement and advice of Dr. Brian John who has guided me in the preparation of this thesis. My time at McMaster University has been both challenging and enlightening thanks, in part, to the talents of Dr. Joan Coldwell, Dr. Donald Goellnicht, and Dr. Lorraine York.

I send my constant gratitude to Laurie Deviney for supporting me in this project and showing me that "To create a little flower is the labour of ages" (*MHH* 152).

CONTENTS

LIST OF ILLUSTRATIONS

ABBREVIATIONS

A	-	*America*
AB	-	*Annotations to Berkeley's "Siris"*
AR	-	*Annotations to Reynolds' "Discourses"*
AW	-	*Annotations to Watson's "Apology"*
DesC	-	*A Descriptive Catalogue*
EG	-	*The Everlasting Gospel*
FZ	-	*Vala, or the Four Zoas*
GP	-	*For the Sexes: The Gates of Paradise*
J	-	*Jerusalem*
L	-	*The Book of Los*
Lao	-	*The Laocoön*
LJ	-	*A Vision of the Last Judgement*
M	-	*Milton*
MHH	-	*The Marriage of Heaven and Hell*
NNR	-	*There is no Natural Religion*
PA	-	*Public Address*
PPM	-	*Poems from the Pickering Manuscript*
SI	-	*Songs of Innocence*
U	-	*The Book of Urizen*

INTRODUCTION

William Blake repeatedly voiced his opposition to the "Serpent Reasonings" (*GP* 770) of scientific intellectualism that shaped the Enlightenment understanding of visual art. Much of his writing directly addresses the effect of rational analysis on the study and practice of art, and it is apparent that references to this issue are visually expressed in his designs. Blake's pictures can, thus, be seen as self-reflexive commentaries on the process of visual representation. His manipulation of compositional techniques and visual allusions to academic methods reveal an awareness of the principles that informed contemporary theories of art, and many of his designs can be read as ironic statements that comment on the scientific, rational approach that was fostered by the art establishment of his time. There often appears to be a double irony involved in such pictures, for the very principles that are the subject of Blake's critique also seem responsible for the aesthetic success of these works.

In order to demonstrate the correlation between Blake's pictorial style and the visionary ideology embedded in his designs, it is first necessary to consider a number of aspects of rational, academic theory that he revolted against in his work. To this end, the following chapters will explore matters of science and mathematics, linear perspective, and compositional schemata before addressing in detail an example of Blake's manipulation of visual theory.

This study will attempt to unravel the apparent double irony of Blake's designs and establish the distinction between the contrary ideologies manifested in the "Mathematic Form" of rational systematization and visionary "Living Form" ("On Virgil" *K* 778).

CHAPTER I: VISUAL ART IN THE AGE OF REASON

(i)

What has Reasoning to do with the Art of Painting?

(*AR* 458)

Blake's distinctive pictorial style developed in response to the social context in which he lived. The rational and empirical values of the Enlightenment had prepared the eighteenth century to embrace scientific principles in matters of education, philosophy, politics, and religion; it should come as no surprise that scientific reasoning also influenced visual art. In Blake's view, the unholy trinity of Bacon, Newton, and Locke was responsible for the fall into the state of materialism that had debased all aspects of British culture throughout the Age of Reason. The reduction of art to a set of demonstrable axioms and general principles was anathema to Blake, and, in revolt against the "Spectre, who is the Reasoning Power in every Man" (*J* 685), he insisted that Imaginative Vision is the inspiration of the true artist.

The influence of the Enlightenment on the visual arts is understandably profound. Rational and empirical methods of inquiry gained prominence in the seventeenth century as the application of science and natural philosophy was widely accepted as the source of human knowledge. Newton's monumental treatise, *Philosophiae naturalis principia mathematica* (1687), demonstrated the mathematical laws of gravitation and motion, and established

that phenomena ranging from tidal motion to the earth's orbit could be explained by a single scientific theory. This revelation was embraced by the Deists who used the *Principia* to support their notion of the universe as a creation that functions according to the impassive laws of reason. Newton conceived of the world as a machine governed by rational terms, and this reduction of the universe to mathematical demonstration was mocked by Blake as "Single vision & Newton's sleep" (letter 24 *K* 818). The impact of Newton's natural philosophy was evident in attitudes toward visual art, for, since the universe operates in accordance with scientific laws, art must also subscribe to these rules. The development of visual theory within a mechanistic, analytical framework was the logical extension of the Newtonian world view.

Newton made a more direct contribution to the study of visual art with the publication of *Opticks* (1704). This investigation into the nature of light advanced the understanding of light and colour, revealing the presence of the colour spectrum within white light. Newton's discovery proved to be of great consequence to academic artists who continued to theorize on the behaviour of light, and prescribed methods of colour application from the eighteenth century onward.[1] In academic circles, the treatment of light was no longer to be judged simply by the discretion of the artist's eye, but by rational methods based on scientific principles.

John Locke's *Essay Concerning Human Understanding* (1690) also exerted a significant influence on the approach to visual art in the Enlightenment. The empiricist epistemology propounded by the *Essay* denied the presence of *a priori* knowledge and the existence of innate ideas. Locke

asserted that all ideas are derived from external sensory experience, and internal reasoning is based on these perceptions. Mathematical qualities of shape and weight are perceived as ideas representing objects that exist in the world, but the essences of the objects of perception cannot be known. According to Locke, certainty can be achieved only through mathematical abstraction. In such a system, artistic expression is not rooted in imaginative inspiration, but, instead, reflects the experience of the material world through quantifiable properties that can be measured, numbered, and weighed.

Blake recognized Newton and Locke as exponents of Bacon's experimental science that had "Ruin'd England" (*AR* 456). The popular acceptance of the scientific method and the triumph of reason over mysticism garnered support in the arts community of eighteenth-century England, substantially affecting Blake's experience as a visual artist. The development of aesthetics as a specific discipline was instrumental in bringing rational analysis to the arts, and the rise of Neoplatonism in England provided the impetus for the aesthetic movement. The Earl of Shaftesbury played a prominent role in reviving the aesthetic issues considered by the ancients. Shaftesbury maintained that beauty is linked to virtue, for aesthetic and ethical values correspond; he also promoted the concept of the sublime as a quality separate from beauty -- classical sources had made no such distinction. Shaftesbury was followed by a number of British authors who explored standards of taste and impressions of beauty, most notably Addison, Hutcheson, and Hume. Although the term "aesthetics" was not used by these authors to define their field of inquiry, the area of study was firmly established as a

recognized discipline, reflecting the degree to which the analysis of art had gained currency.[2]

One of the texts that forged the link between science and art was Edmund Burke's *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful* (1756), which sought to research the laws of aesthetics by empirical means. Burke makes use of the works of Newton and Locke, as well as the ancient authorities, drawing from Longinus' *On the Sublime*, Lucretius' *De Rerum Natura*, and Vitruvius' *De Architectura*, in an attempt to systematize the faculties of perception. Burke's treatise set out to discern aesthetic principles

> from a diligent examination of our passions in our own breasts; from a careful survey of the properties of things which we find by experience to influence those passions; and from a sober and attentive investigation of the laws of nature. (Burke 1)

The *Enquiry* enjoyed great popularity as one of the most influential forces in English aesthetics, and encouraged further empirical analysis of proportion, beauty, sublimity, and perception.

Blake was intimately familiar with Burke's work and, in annotating Reynolds' *Discourses*, he observed:

> Burke's Treatise on the Sublime & Beautiful is founded on the Opinions of Newton & Locke; on this Treatise Reynolds has grounded many of his assertions in all his Discourses. I read Burke's Treatise when very Young; at the same time I read Locke on Human Understanding & Bacon's Advancement of Learning; on Every one of these Books I wrote my Opinions, & on looking them

> over find that my Notes on Reynolds in this Book are exactly Similar. I felt the Same Contempt & Abhorrence then that I do now. They mock Inspiration & Vision. (*AR* 476, 477)

By aligning Burke with Bacon, Newton, and Locke, Blake assembles a rogue's gallery of villains responsible for England's fall into materialism. Joshua Reynolds is identified by Blake as a member of this intellectual circle, and is indicted as the proponent of rational thought who was most responsible for the application of the analytical method to the realm of visual art.[3]

As the first President of the Royal Academy of Arts, Reynolds exercised the authority of his position in delivering a series of lectures that set forth the aesthetic standards of the "Grand Manner" as an empirically grounded, academic doctrine of art. Reynolds' endeavour to "reduce the idea of beauty to general principles" (Reynolds 53) is consistent with the tendency of eighteenth-century aesthetics to operate within a framework of rational analysis. In *William Blake's Theory of Art*, Morris Eaves observes that it is pedagogically necessary for Reynolds to systematize and depreciate the "oracular aspect of genius" (94). Eaves explains: "The arts come to seem teachable because the unstatable values traditionally associated with unteachable faculties like the imagination are altogether secondary in the theory as a whole" (94). In Reynolds' *Discourses*, art is the subject of academic analysis and it is accordingly treated as a phenomenon that can be intellectually defined. With the founding of the Royal Academy in 1768 and the subsequent publication of Reynolds' *Discourses*, academic theory was consolidated as the tool of the establishment in English visual art.[4]

The Royal Academy was a late addition to the substantial group of European art academies that grew with the popular appreciation of neoclassicism. The Palladian architecture of Inigo Jones enjoyed a revival early in the eighteenth century, causing the Baroque to fall from favour. In the mid-century, the excavation of the ruins at Pompeii and Herculaneum continued to excite the interest in antique art and architecture. Classical standards were championed by such prominent figures as Anton Mengs, whose ideas were the source of Daniel Webb's *Inquiry into the Beauties of Painting* (1760), and J.J. Winckelmann, whose first book was translated into English by Fuseli as *Reflections on the Painting and Sculpture of the Greeks* (1765).[5] The rise of neoclassicism in England contributed to the dominance of reason through the emphasis on unity of design and harmony of proportion. Reverence for antique works as models of perfection had generated a number of systematized canons and these aesthetic doctrines were embraced by Enlightenment art institutions as rational precepts that could be taught within academic curricula. The success of the academy as a place of instruction was ensured by the imposition of an artistic orthodoxy founded on the study of visual theory and the copying of antique casts that were exclusively available to the students of the institution.

The "Instrument" of the Royal Academy set forward an instructional program based on the conventional models of eighteenth-century art institutions. Academic instruction was to include a series of lectures given by Professors of Anatomy, Perspective and Geometry, Architecture, and Painting.

The mandate of the Academy is apparent in the prescribed content of these lectures; the Professor of Architecture, for example, was required to

> read annually six public Lectures, calculated to form the taste of the Students, to instruct them in the laws and principles of composition, to point out to them the beauties or faults of celebrated productions, to fit them for an unprejudiced study of books, and for a critical examination of structures. (Sandby 53)

The school was also to provide a "Library of Books of Architecture, Sculpture, Painting, and all the Sciences relating thereto" (54) along with casts, models, and prints of masterpieces to be emulated.[6] Student work was to be monitored in the "School of Design" where Academicians were to "set the figures, to examine the performances of the students, to advise and instruct them," and "to endeavour to form their taste" (52). Although the Council of the Royal Academy claimed that "no academic restraint is imposed on the student," and that "no arbitrary type, in tastes or methods is proposed" (70), it is clear that the institution embodied the spirit of intellectualism and entrenched the analytical method as the standard of practice in the visual arts.

(ii)

God forbid that Truth should be confined to Mathematical Demonstration!

(*AR* 474)

Newton's *Principia* was a remarkable achievement for mathematical physics. By providing a quantitative, mathematical description of celestial mechanics, Newton showed that the forces of the universe could be scientifically understood and articulated through mathematics. The natural world was regarded as a machine designed by God to operate according to rational principles, and Newton's physics expressed this divine design in mathematical terms. As a result, mathematical demonstration was entrenched as the accepted method of scientific inquiry.

Although it was Newton who "placed the Keystone in the great arch of mathematical astronomy and physics" (Bredvold 30), the ambition to reduce the workings of the universe to mathematical formulae was shared by many of the seventeenth century's most distinguished figures. In *The Brave New World of the Enlightenment*, Louis Bredvold describes the passion for mathematical reasoning as a *furor mathematicus* that shaped the materialistic philosophy of the Age of Reason. Thomas Hobbes' Utopia was inspired by geometry, and Bredvold credits him as "the first notable writer to proclaim that we could solve our social and moral problems if only we made our social sciences as scientific as mathematics and physics" (33). Similarly, Locke's *Essay Concerning Human Understanding* "repeatedly affirmed his conviction that morality is as capable of exact demonstration as mathematics" (41).[7] Both

Descartes and Spinoza proposed systems of mathematical ethics, and Leibnitz hoped to apply mathematics to the study of law. The excitement of the *furor mathematicus* carried mathematical reasoning to absurd extremes: John Craig's *Theologiae Christianae Principia Mathematica* (1699) proposed a calculus by which the decay of Gospel truth could be measured; Francis Hutcheson's *An Inquiry into the Original of Our Ideas of Beauty and Virtue* (1725) introduced an algebra of morality that earns Bredvold's appraisal as "a strange and futile pretense at algebraic reasoning" (38).[8] As the scientific spirit affected virtually all fields of study in the Enlightenment, every aspect of the rational, mechanized universe (including human behaviour) became the subject of mathematical calculation.

Visual art was not exempt from the *furor mathematicus*, and the eighteenth century brought a number of mathematical systems to the attention of British artists. Canons of proportion from ancient and Renaissance sources were taught at private drawing schools and the Royal Academy, for it was expected that artists should appreciate the mathematical principles of harmony. Renaissance theories of linear perspective were also studied at the Academy, for they provided rational systems for the mechanical construction of illusional depth.[9] The geometrical foundations of perspective theory accounts for the fact that British artists were introduced to scientific perspective by two eminent mathematicians, both associates of Newton. In *The Science of Art*, Martin Kemp notes that Humphry Ditton's *A Treatise of Perspective, Demonstrative and Practical* (1712) and Brook Taylor's *Linear Perspective* (1715) were specialized mathematical treatises that appeared "well in advance of any

perspectival painting of comparable sophistication, and almost fifty years before the specifically artistic treatise of John Kirby [*Dr. Brook Taylor's Method of Perspective Made easy both in Theory and Practice* (1754)]" (Kemp 148). Visual theory in England clearly followed the mathematical principles that were enshrined with the triumph of science. With the spectacular accomplishments of British scientific inquiry and the circulation of ancient and Renaissance mathematical systems, the English art establishment was prepared to heed Alberti's pronouncement: "I want the painter, as far as he is able, to be learned in all the liberal arts, but I wish him above all to have a good knowledge of geometry" (Alberti 88).

Blake was certainly aware of the influence of mathematics on visual art in his time. Through his early interest in print collecting, Blake was exposed to the works of the High Renaissance masters, most notably, the geometrically technical works of Raphael and Dürer. Blake's first formal instruction in the use of geometry in graphic art likely came when he attended Henry Par's drawing school where, in copying antique casts, students would have learned the fundamentals of geometrical schematics, proportion, and perspective.[10] When Blake later apprenticed as an engraver under James Basire, mathematical precision in faithfully reproducing original works was taught as an aspect of the "Art and Mystery" (Bentley 10) of the engraver's profession. A common practice of copy engraving was the squaring of an original work in order to guide the artist in accurately scaling the design to a different size -- a method employed by Blake perhaps as late as 1807 (figs. 1 & 2). Although Robert Essick describes the use of squared drawings as

"antithetical to the unity of conception and execution intrinsic to Blake's relief etching" (Essick *Printmaker* 197), the uncharacteristic use of this technique in Blake's later work reveals the extent to which the skills of his early art education affected his method.

Blake's knowledge of the application of mathematics to visual art was surely augmented by the instruction that he received as a student at the Royal Academy Schools. Academicians supervising the School of Design would have coached students in matters of balance, rhythm, and harmony that depend on the geometrical armature of a work. Attending lectures at the Academy, Blake would have heard Edward Penny's advice on compositional order in painting and Dr. William Hunter's discussion of anatomical proportion. Whereas the Professors of Painting and Anatomy would have likely made passing references to mathematical systems, the Professors of Architecture and Perspective were required to give geometry considerable attention. Architecture is dependent on mathematical principles, and Thomas Sandby's lectures would have conveyed some of the knowledge of applied geometry that earned him the distinction of designing the Freemasons' Hall in London.[11] Similarly, as Professor of Perspective and Geometry, Samuel Wale was expected to illustrate "all the useful propositions in Geometry, together with the principle[s] of Lineal and Aerial Perspective, and also the projection of shadows, reflections, and refractions" (Sandby 53).

Blake's early work as a journeyman engraver also provides evidence that he was familiar with the geometry of visual art. His sketches for Joseph Ayloffe's *Some Ancient Monuments in Westminster Abbey* and Richard Gough's

Sepulchral Monuments in Great Britain, executed as Basire's apprentice, were used to produce accurate scale renderings. Drawings attributed to Blake of Edward I in his coffin are, in fact, complete with measurements (figs. 3 & 4). Furthermore, these plates of Westminster Abbey's tombs, along with many of Blake's commercial engravings, demonstrate a proficiency in the representation of recessional perspective. Blake also illustrated canons of mathematical proportion in the designs that he engraved with the aid of compasses and a straight-edge for Henry Emlyn's *A Proposition for a New Order in Architecture* (fig. 5).

In addition to Blake's exposure to the mathematization of art, it appears that he learned something of Euclidean plane geometry. When engraving Thomas Stothard's vignette for John Bonnycastle's geometry primer, *An Introduction to Mensuration and Practical Geometry* (fig. 6), Blake copied diagrams of the Pythagorean Theorem (Euclid's 47th proposition), and may well have given the text's contents some consideration. Theories of Renaissance linear perspective are essentially derived from Euclidean geometry, and this application may have sparked Blake's interest, for on another occasion he studied at least the first five propositions of Euclid's *Elements*. An anecdote in William Meredith's notebook tells of Blake's instruction by the eminent Neoplatonist, Thomas Taylor:

> T. Taylor gave Blake, the artist, some lessons in mathematics & got as far as the 5th propositn wch proves that y two angles at the base of an isosceles triangle must be equal. Taylor was going thro the demonstration, but was interrupted by Blake, exclaiming "ah never mind that -- what's the use of going to prove it. Why I see

> with my eyes that it is so, & do not require any proof to make it clearer." (King "Merediths" 157)

Blake's dismissal of the need for a mathematical demonstration of a proof that is apparent to the eye reflects his favouring of intuitive insight over methods of rational certainty.

The figure of the geometer repeatedly appears in Blake's work as a symbol of misguided reasoning. In *There is No Natural Religion* (Second Series), a bearded mathematician hunches beneath a vigorous, life-affirming tree and myopically ponders a triangle sketched on the ground before him (fig. 7); the compasses in his hand mirror the triangle, comprising a 1:1 ratio in which the product of reasoning equals the tool of reason; the accompanying "Application" reads: "He who sees the Infinite in all things, sees God. He who sees the Ratio only, sees himself only" (*NNR* 98). Limited to "the ratio of all we have already known," the possessor of reason is bound to the mechanism of demonstrable truth, transforming the universe into "a mill with complicated wheels" (*NNR* 97).

This same fall into the error of mathematical reasoning and materialistic philosophy is illustrated in two of Blake's most celebrated designs: the colour print *Newton* (fig. 8), and *The Ancient of Days* (fig. 9). The protagonists in both pictures wield the geometer's compasses in their tasks of mensuration and mathematical abstraction. Entirely absorbed in their labours, Newton examines a geometrical diagram and Urizen circumscribes the material world while their human forms take on geometrical shapes that reflect their

acts of mathematical reasoning. Both geometers see only the application of their rational powers and, as a result, come to mirror their mathematics.

Blake attributes the fall into error and the material world of Ulro to Urizen, the embodiment of Reason, who propounds the rational laws of the "Vegetative Universe" (*J* 633) by mensuration and mathematical calculation. Urizen's creative powers are expressed through the geometrically based arts of cartography, astronomy, and architecture, and he uses the tools of quantification to chart the "endless Abyss of space" (*U* 231):

> He form'd a line & a plummet
> To divide the Abyss beneath:
> He form'd a dividing rule;
>
> He formed scales to weigh,
> He formed massy weights;
> He formed a brazen quadrant;
> He formed golden compasses,
> And he began to explore the Abyss.
> (*U* 233 234)

Urizen and his sons also number and order the stars that travel within the Mundane Shell; the orbits of celestial bodies are plotted as they move "In intricate ways, biquadrate, Trapeziums, Rhombs, Rhomboids, / Paralellograms triple & Quadruple, polygonic / In their amazing [fructifying *del.*] hard subdu'd course in the vast deep" (*FZ* 287). In a similar act of mathematical reasoning, he structures a Golden Hall on the principles of architectural geometry:

> First the Architect divine his plan
> Unfolds. The wondrous scaffold rear'd all round the infinite,
> Quadrangular the building rose, the heavens squared by a line,
> Trigons & Cubes divide the elements in finite bonds. (*FZ* 284)

These creations are products of Urizen's desire to "bind the infinite" (*E* 239), and his obsession with the faculty of reason reduces the Eternal to finite quantities that can be numbered and measured.

Urizen's geometrically ordered cosmos bears a marked resemblance to the universe that is described in Plato's *Timaeus*. In *The Neoplatonism of William Blake*, George Harper establishes that Plato's doctrines and the Neoplatonic commentaries of Plotinus and Proclus made a significant impression on Blake's metaphysics. Blake was intrigued by aspects of Greek philosophy, and likely drew ideas for his own cosmology from Thomas Taylor's English translations of Plato and the Neoplatonists. Although Blake "underwent a radical aesthetic and religious regeneration" (Harper 36) and revised his views on Greek art and literature after visiting the Truchsessian Gallery in 1803, his critique of mathematical systems is evident in work that preceded this rejection of the Greeks. Blake's early prose work, *An Island in the Moon*, gently satirizes Obtuse Angle, a mathematician whom Harper identifies as Thomas Taylor (Harper 40). In *The First Book of Urizen* and subsequent prophetic books, Blake conceives of creation as a fall from Eternity facilitated by Urizen's mathematical reasoning. Harper suggests that it was the mathematical emphasis of Taylor's translations that was "partially responsible for Blake's ultimate repudiation of Greek art and literature" (44), and it is

evident that, from his earliest acquaintance with Greek philosophy, Blake consistently objected to mathematical reasoning. In any case, after 1803, Blake's former ambition "to renew the lost Art of the Greeks" (letter 4 *K* 792) is replaced by a desire to see beyond Grecian mathematics.

Having condemned the mathematical foundations of Greek philosophy, Blake rejects Plato's metaphysics as the delusion of mechanistic calculation: "The Gods of Greece & Egypt were Mathematical Diagrams -- See Plato's Works" (*Lao* 776). Since this same mathematical framework characterizes Greek art, Blake asserts that the classical models are, in truth, mechanical reproductions of Hebrew originals, and "What we call Antique Gems are the Gems of Aaron's Breast Plate" (*Lao* 777). Blake maintains that the Hebrew masterpieces were "executed in a very superior style to those justly admired copies, being with their accompaniments terrific and grand in the highest degree" (*DesC* 565). Contending that the works attributed to the Greeks are copies "from greater works of the Asiatic Patriarchs" (*DesC* 565), Blake assigns the status of journeyman to the Greek artists and all who follow their method.

When Blake rejected Greek models as mathematical copies of lost Hebrew works, he established Imaginative Vision as the means by which art could be delivered from the bonds of Reason and returned to the level of the original masters. The prophet's inspiration, not science, is put forward as the artist's guide:

> The Old & New Testaments are the Great Code of Art.
>
> Art is the Tree of Life. God is Jesus.
>
> Science is the Tree of Death. (*Lao* 777)

By replacing the mathematics of Grecian art with the Vision of the Hebrew patriarchs, Blake counters the attempt of Reason and the scientific method to dominate the practice of visual art.

Blake does not, however, deny that Reason serves a vital function in the Vegetative Universe. Reason is a faculty of "the Divine Humanity" (*LJ* 612) that is divided from its Contrary, the Imagination, when manifested in the material world. Both Reason and Imagination are essential: "Without Contraries is no progression. Attraction and Repulsion, Reason and Energy, Love and Hate, are necessary to Human existence" (*MHH* 149). Reason defines shape and determines lineation; it serves as "the bound or outward circumference of Energy" (*MHH* 149). The "bounding line" of Reason is a fundamental of art and life:

> The great and golden rule of art, as well as life is this: That the more distinct, sharp, and wirey the bounding line, the more perfect the work of art .... What is it that distinguishes honesty from knavery, but the hard and wirey line of rectitude and certainty in the actions and intentions? Leave out this line, and you leave out life itself; all is chaos again, and the line of the almighty must be drawn out upon it before man or beast can exist.
>
> (*DesC* 585)

It is only when the Spectre's rational power seeks to negate the Imagination that the balance of Contraries is disturbed:

> The Spectre is the Reasoning Power in Man, & when separated
> From the Imagination and closing itself as in steel in a Ratio
> Of the Things of Memory, It thence frames Laws & Moralities
> To destroy Imagination, the Divine Body, by Martyrdoms & Wars.
> (*J* 714)

With the dominance of natural philosophy, mathematics, and the scientific method during the Enlightenment, the Spectre's destructive machinery was constructed in British society, and, ultimately, in the arts community of eighteenth-century England. It is this mechanism of misguided Reason that Blake attempts to dismantle.

Blake's concern was not limited to an abstract level of aesthetic and philosophical discourse. In *Blake in Context*, Stewart Crehan observes that "Blake's revolt is not ... simply against rational analysis and the general laws of science *per se*, but against their *social consequences*" (46). The division of labour and rational systematization of the workplace that accompanied the rise of industrial capitalism reduced workers to cogs in an efficient machine. The creativity of the independent artisan was lost, for increased profits could be realized through the organization of specialized tasks performed by a productive, but alienated work force. Crehan notes that at Wedgewood's Etruria pottery works in the 1790s,

> 273 out of the 278 workers were already specialists. Increased mechanization, the scientific analysis of skilled handicrafts into their constituent detailed operations, and hence the more "efficient" (and more dehumanizing) re-organization of the work process resulted in the de-skilling of the worker, the cheapening of labour power, and a greater degree of control exerted by the calculating brain of the capitalist -- a rational tyranny that Andrew Ure, in his *Philosophy of Manufactures* (1835) cynically endorsed. (Crehan 49)

In response to the de-skilling of crafts by capitalist enterprise, the Romantic artist found it necessary to "mystify artistic creativity, and to give a special, unique status to the artist himself. It is not merely *skill* (which is vulnerable) that makes an artist, but *sensibility*" (Crehan 50).

Blake's objection to the mathematical systems that influenced British society during the Age of Reason comes as a response to the threat of further mechanization of art and the alienation of artists from their work. Eaves identifies a passage from *The Four Zoas* as social commentary addressing the plight of journeymen: the sons of Urizen (Eaves names Reynolds as one) change "the arts of life ... into the arts of death," inventing intricate wheels

> To perplex youth in their outgoings & to bind to labours
> Of day & night the myriads of Eternity, that they might file
> And polish brass & iron hour after hour, laborious workmanship,
> Kept ignorant of the use that they might spend their days of wisdom
> In sorrowful drugery to obtain a scanty pittance of bread,
> In ignorance to view a small portion & think that All,
> And call it demonstration, blind to all the simple rules of life.
> (*FZ* 337 / Eaves 115)

During his experience as a copy engraver, Blake was similarly required to labour at polishing the metal plates that he used in reproducing the compositions of other artists -- a task that could not have been artistically rewarding for the young visionary.[12] The role of the copyist did not satisfy Blake, and he clearly stated that "To Engrave after another Painter is infinitely more laborious than to engrave one's own inventions" (letter 5 *K* 794). Furthermore, Essick observes that the invention of mechanical copy devices such as the "parallelogram" or "mathematical compass" "could only have represented the ultimate reduction of his profession to a mathematical machine" (*Printmaker* 13).[13] Mathematically based theories of perspective and proportion were also viewed by Blake as opponents of creativity, for they turned art into mechanical geometry and the artist into a "slave grinding at the mill" (*FZ* 291).

NOTES

[1] See Kemp's *The Science of Art* (chapter VII) for a detailed summary of the applications of colour theory.

[2] Alexander Baumgarten was the first to use the term "aesthetics" to describe an analytical theory of perception in his *Meditationes philosophicae de nonnullis ad poema pertinentibus* (1735). It was not until the 1830s, however, that aesthetics came to be popularly associated in England with the perception of the beautiful in art (*OED*).

[3] The degree to which Reynolds can be seen as Burke's successor is apparent in the fact that a "report circulated after his [Reynolds'] death that either Johnson or Burke aided him in the composition of his discourses" (Sandby 75). Although this rumour proved to be unfounded, it reflects the influence of Burke on Reynolds' thought.

[4] The *Museum Minervae*, founded by Charles I in 1636, is a notable precursor to the Royal Academy. The *Museum* and a number of private academies testify to the interest in the academic study of art throughout the seventeenth and eighteenth centuries (see Sandby, chapter II).

[5] Bentley confirms that Blake acquired a copy of Winckelmann's *Reflections* while he was apprenticed to Basire (Bentley 12).

[6] The Academy's collection was a particularly valuable resource, for it was not until 1824 that the National Gallery was established for public viewing.

[7] Bredvold provides the following references to support this assertion: "Locke, *Essay*, I, ii, 1; III, xi, 16; IV, iv, 7-9; IV, xii, 8" (Bredvold 160 n 13).

[8] For a truly ludicrous excerpt from Hutcheson's treatise (accompanied by Sterne's satirical remarks), see Bredvold (39).

[9] See chapter II for details on perspective.

[10] My discussion of Blake's instruction in the mathematical principles of art is necessarily speculative. I am not aware of any biographical evidence that can confirm my assumptions (e.g. Blake's attendance at Royal Academy lectures), but it seems improbable that Blake would not have received formal instruction in the application of geometry to visual art.

[11] The rise of Freemasonry in eighteenth-century England is, itself, linked to the Enlightenment passion for mathematics.

[12] Essick quotes a virtually identical passage from *Jerusalem* [*J* pl. 65 6-32 = *FZ* N7 164-190] and makes similar observations regarding the transformation of art into menial labour (*Printmaker* 9, 10).

[13] For a description of the "parallelogram," and other devices of mathematical reproduction, see Essick (*Printmaker* 13).

CHAPTER II: LINEAR PERSPECTIVE

The Sun's Light when he unfolds it
Depends on the Organ that beholds it.
(*GP* 760)

When Fillippo Brunelleschi developed a system of centrally converging perspective in Quattrocento Italy, he had the benefit of two thousand years of geometrical optics to guide him. Although Brunelleschi is credited as the founder of scientific linear perspective, his achievements, and the accomplishments of the Renaissance artists who followed his method, are deeply indebted to the geometers who preceded them. Linear perspective is inextricably linked with the study of optics, a subject of interest to Epicurean, Pythagorean, and Stoic philosophers.[1] It was Euclid, however, who prepared the foundations for Renaissance perspective theory by introducing geometry as a tool to explain the workings of sight. After Euclid's *Optica* established the geometrical framework for the science of optics, his method was adopted by Ptolemy, who described the principle of the centric ray, and subsequently informed the Arab scientists of the ninth, tenth, and eleventh centuries. Alhazen's optical treatise, entitled *Perspectiva* in its translation from Arabic to Latin, succeeded in merging the abstractions of geometry with empirical science, and yielded a demonstrable mechanistic theory of vision.

The development of optics as a mathematical science had extensive repercussions in Christian metaphysics. In the thirteenth century, Robert Grosseteste, the bishop of Lincoln and chancellor of Oxford University, accepted that Euclidean space was uniform and isotropic, and conjectured that "light, around us in the universe, propagates in exactly the same way. By no coincidence, God created *lux* on the first day, as the essential medium through which to dispatch his divine grace, according to the geometric laws of *perspectiva*" (Edgerton *Heritage* 44). The principles of optics could, thus, be used to comprehend God's design of the material world. Grosseteste's student and fellow Franciscan, Roger Bacon, shared the belief that God's grace could be recognized through geometry, and called for the pictorial representation of Scripture that conformed to the laws of optics. In *Opus majus*, Bacon proclaims,

> Oh, how the ineffable beauty of the divine wisdom would overflow, if these matters relating to geometry, which are contained in Scripture [Noah's ark, Solomon's temple, Aaron's vestments, etc.] should be placed before our eyes in their physical forms! .... I count nothing more fitting for a man diligent in the study of God's wisdom than the exhibition of geometrical forms of this kind before his eyes. (Edgerton *Rediscovery* 17, 18)

By establishing a system of linear perspective that observed the laws of Euclidean geometry, Brunelleschi answered Bacon's invocation. Samuel Edgerton observes that

> It was no coincidence, therefore, that the first Renaissance painting structured according to Brunelleschi's geometric perspective rules, Masaccio's *Trinity*, had as its subject the most recondite of all Christian miracles. Henceforth Renaissance pictorial realism could be defined as not only replicating human vision but revealing the actual process of God's divine grace working on earth. (Edgerton *Heritage* 89, 91)

It is not surprising that virtually all of the early paintings in Renaissance perspective treated religious subjects, for optical geometry made it possible to depict objectively an image of the divine creation.

Linear perspective was not formally introduced in Britain until the eighteenth century, and when perspective theory was eventually explained in Humphry Ditton's *A Treatise of Perspective, Demonstrative and Practical* (1712) and Brook Taylor's *Linear Perspective* (1715), the intended audience was the mathematics community. However, as the Enlightenment yielded a growing interest in scientific approaches to art, this rational, geometrically based system of pictorial representation became particularly attractive to artists who desired a scientifically sophisticated method. Perspective became a fundamental skill taught in the flourishing art academies of the eighteenth century, and, as Kemp observes, "once perspectival mathematics was absorbed into the context of the new academies, it took vigorous hold and resulted in a series of notable publications by Kirby, Fournier, Highmore, Malton, Edwards and a succession of less prominent authors" (Kemp 148).[2]

The function of perspective in the Enlightenment had significantly shifted from the devotional nature of the first illusionist Renaissance works.

Rather than portraying scenes from Scripture, British artists applied linear perspective primarily to technical illustrations of machinery, followed by studies of landscapes and architecture. This concentration on material subjects can be attributed to the spread of Deism in the Age of Reason. The Deists substituted intellectualism for the mysticism of naive faith, and the natural world was viewed as a divine creation governed by the laws revealed by Newtonian science. Natural Religion had no use for the depiction of miracles but, instead, revered the material universe and the rational principles that ordered its operation; the mathematical science of linear perspective provided an appropriate system for representing this rational, mechanical world.

When approaching Blake's visual art, it is immediately apparent that he avoids the illusionism of linear perspective and, instead, foregrounds human forms against a backdrop of two-dimensional space. Blake eschewed the scientifically correct technique of recessional perspective, for it merely replicates the sensory image of the material world. His pictures do not present objective images that are constructed in accordance with the laws of optical geometry, for science is "a Delusion / Of Ulro & a ratio of the perishing Vegetable Memory" (*M* 513). Blake's rejection of the perspective theory that dominated the art academies of his day leads Crehan to assert that

> More than a hundred years before the modernist reaction against classical (i.e. Euclidian/Newtonian) concepts of space and empiricist views of reality (i.e. the systematic perception of external phenomena from a single perspectival viewpoint), Blake consciously reacted against naturalistic illusionism. (Crehan 252)

In his discussion of eighteenth-century aesthetics, Kemp similarly remarks that "Perhaps more directly than any other artist of his age, Blake mounted an unrelenting assault on the tradition of scientific rationalism and its underpinning by empiricist philosophy" (Kemp 251). Kemp defends this claim with a quotation from Blake's *Descriptive Catalogue*:

> He who does not imagine in stronger and better lineaments, and in stronger and better light than his perishing mortal eye ... does not imagine at all. The painter of this work [Blake is referring to his own *The Bard from Gray*] asserts that all his imaginations appear to him infinitely more perfect and more minutely organized than anything seen by his mortal eye. (Kemp 252)

The sensory delusions of the natural world support the concept of a mathematically ordered, Newtonian universe and obscure the faculty of Vision with "the unreal forms of Ulro's night" (*FZ* 283).

Blake names Vision as the inspiration of all true art, declaring that "One Power alone makes a Poet: Imagination, The Divine Vision" (*AW* 782). Foster Damon succinctly defines Blakean Vision as "The perception of the human in all things" (Damon 436), and clarifies that Newtonian "Single vision" (letter 24 *K* 818) is the erroneous practice of seeing only the material world as it appears to the physical eye. Such sensory information is deceiving, for

> This Life's dim Windows of the Soul
> Distorts the Heavens from Pole to Pole
> And leads you to Believe a Lie
> When you see with, not thro', the Eye. (*EG* 753)

The subjects of Imaginative Vision are "incomprehensible / To the Vegetated Mortal Eye's perverted & single vision" (*J* 684), and do not subscribe to the rules of optical geometry that inform linear perspective.

Blake may, in fact, be alluding to linear perspective in coining the term "single vision." The objective, naturalistic illusion of perspectival depth is achieved by geometrically constructing a design on a two-dimensional picture plane that replicates the retinal image of a three-dimensional object. The object appears as if it is viewed through a window from a single, fixed viewpoint. Blake maintains that such images of the objective, material world are delusory, for "If Perceptive Organs vary, Objects of Perception seem to vary: / If the Perceptive Organs close, their Objects seem to close also" (*J* 661). The natural world cannot be objectively represented, for "Every Eye Sees differently. As the Eye, Such the Object" (*AR* 456). Single vision is the state of material error in which all eyes see alike, and single point perspective reproduces this scientifically consistent, objective reality.

The optical geometry that describes the behaviour of light and informs systems of scientific perspective contributes the error of Single vision. The light of a "sulphur Sun" (*A* 204) illuminates the material world, allowing for the empirical study of phenomena and the practice of naturalistic art. Baconian science, Deist Natural Religion, and illusonist art all view creation in the light of this physical sun. Renouncing these delusory practices, Blake dispels the illusion of Time and Space on which empirical science and linear perspective is based, and announces to the material sun,

"Thou measurest not the Time to me,"
"Nor yet the Space that I do see;"
"My Mind is not with thy light array'd."
"Thy terrors shall not make me afraid."
(letter 24 *K* 818)

He calls for "an overwhelming of Bad Art & Science", asserting that "Mental Things are alone Real" (*LJ* 617) and urges artists to cast off the "World of Generation & death" (613). Blake's own pictures are, accordingly, illuminated by Imaginative Vision rather than physical sources of light, and Crehan notes that "his handling of light subverts the whole post-Renaissance tradition of plastic modelling and perspectival depth. Instead of indicating a recessional, three-dimensional space ... Blake's lighting is nearly always *frontal*" (Crehan 253). By the light of the Imagination, the visionary perceives the "Eternal World" and "the Permanent Realities of Every Thing which we see reflected in this Vegetable Glass of Nature" (*LJ* 605).

Blake's revolt against the illusionist convention of linear perspective transforms the picture plane from a window viewing three-dimensional material reality to a flat backdrop for the presentation of human forms. An example of this conceptualization of pictorial space can be seen in *Our End Is Come* (fig. 10) as the psychological state of the three accusers is reflected by the swirling mass of colour that fills the non-naturalistic background. Similarly, in *The Good and Evil Angels Struggling for Possession of a Child* (fig. 11), the contrary "angels" are suspended in irrational space, set against the symbolic flames of energy and a flattened sunscape (signifying either the setting of the imaginative sun or the rising of the material sun). W.J.T. Mitchell contends

that Blake uses two-dimensional pictorial space to serve as an "extension of the consciousness of the human figures it contains":

> the shape and significance of spatial reality is not objective or given, but derives its form and meaning from the human consciousness that inhabits it. The environments of Blake's paintings thus serve as a kind of malleable setting for human form: there are no mathematically consistent perspectives, and very few landscapes or architectural backgrounds which would make any sense without the human figures they contain.
>
> (Mitchell 38)

Although Blake's backgrounds subvert the tradition of illusionist perspective, he does not completely eschew techniques of depth representation. In spite of his vehement objections to the use of chiaroscuro by Venetian and Flemish artists, Blake himself uses gradations of shade to define the musculature of human forms, the folds of garments, and the contours of rocks, clouds, and vegetation. He is also particularly fond of oblique profiles, and postures that require foreshortening; his depiction of the fettered Orc in *The Good and Evil Angels* (fig. 11), for example, employs both an oblique facial position and extreme foreshortening of the torso. The resulting effect is often like that of a bas-relief -- the foregrounded figures are projected from two-dimensional space, causing the viewer to concentrate on the "human form divine" (*SI* "The Divine Image" 117).[3]

Blake's classically idealized human figures symbolically express the insights of Imaginative Vision through a variety of archetypal gestures, postures, and expressions, constituting what Janet Warner describes as a "visual

vocabulary" (Warner xviii). The body is used a "concrete symbol or icon of the imagination" (Mitchell 38), and, in fusing human form and human imagination, Blake unifies aspects of the Divine Humanity that are divided when "the Reasoning Spectre / Stands between the Vegetative Man & his Immortal Imagination" (*J* 663). The fall into division and materialism occurred when the Spectre "made himself a God & destroyed the Human Form Divine" (*M* 521); material existence is structured by "Satan's Mathematic Holiness, Length, Bredth & Highth," and human form is maintained only by "Divine Humanity & Mercy" (*M* 521). Blake reunites the Human Form Divine by merging the imagination and the human form in his visual art. In this act, he rejects empirical reality, replacing scientific perspective with non-illusionist pictorial space in which "Length, Bredth, Highth again Obey the Divine Vision" (*J* 664).

Although Blake largely abandons linear perspective, he sometimes manipulates spatial conventions in order to subvert them. In *Transformations in Late Eighteenth Century Art*, Robert Rosenblum provides a revealing analysis of Blake's rendering of space in the sepia drawing, *A Vision* (fig.12):

> At first glance, the convergent perspective lines of the outer and the inner sanctum seem to create two Renaissance box spaces of rudimentary clarity; yet ... this simplicity is more apparent than real. Thus, the shading of the web-like component planes obeys no natural laws, but is manipulated in such a way that the would-be effects of recession are constantly contradicted, producing instead a series of simultaneously convex and concave planes.
> (Rosenblum 190)[4]

In this "apparition of a Poet and his divine Muse working in some shrine of the imagination" (190), recessional perspective appears to be deliberately corrupted. Within this appropriately irrational space, the visionary sits, inspired by the light of the imagination, and composes poems or draws sketches, "Mocking Druidical Mathematical Proportion of Length, Bredth, Highth" (*M* 484).

Conventions of linear perspective are again manipulated in *The Soldiers Casting Lots for Christ's Garment* (fig. 13), in which Blake depicts the crucifixion, a popular subject of Renaissance perspectival works. Anthony Blunt notes that Blake manages a "brilliant inversion of the normal order, so that the crosses are seen in the background and from behind and the foreground is filled with the evil-looking soldiers" (Blunt 72). Blake alludes to the standard compositional structure of illusionist paintings (here viewed from a point within the picture plane) by positioning the crosses of the two thieves so that the orthogonals suggested by the cross-beams converge on the central figure of Christ. The Passion of Christ brings Mercy to the group assembled at Calvary, and also to the shadowy throng lined between the material parapet and the looming Gothic Cathedral who gaze at the Renaissance painting. Through Imaginative Vision, it is possible to step through the picture plane, and Blake takes us behind the Renaissance composition to reveal the gambling soldiers, symbols of the materialistic Empire that has crucified its visionaries.

Blake's manipulation of perspective conventions is also evident in his watercolour, *Pestilence* (fig. 14). This scene of affliction and suffering has the foregrounded figures arranged in a chaotic mass of swirling garments and

reclined postures. The perspective scheme reflects this social disorder, most notably in the strangely positioned pedestal of the foreground column, and the irregularly drawn plinths of the five columns in the facade of the temple in the background. Raymond Lister comments that the distorted architecture "imparts a dreamlike, almost surreal quality to the work" (Lister pl. 2). This tainted perspective provides an effective, apocalyptic setting for the ominous dark figure who floats through irrationally constructed space tolling a bell for the collection of the dead. Blake's deliberate corruption of perspective is made evident when two versions of *Pestilence* are compared: the roughly sketched, early study (fig. 15, c. 1779-80) is in fact closer to "correct" perspective than the later version (fig. 14, c. 1784). In revising this design, Blake enhanced the distortions of the architecture (as is clearly seen in the handling of the plinths and the position of the step under the arched doorway) to intensify the apocalyptic effect of the setting.

It can, of course, be argued that Blake was simply unskilled in the use of linear perspective. The execution of designs conforming with scientifically correct perspective requires considerable practice and technical expertise; since Blake's visual art largely devalues recessional space, he would not have devoted himself to honing his skills as an illusionist artist. However, many of his copy engravings demonstrate a firm understanding of spatial conventions, as evident in the centrally converging perspective that is strongly delineated in the brickwork and floorboards in *Beggar's Opera, Act III* engraved after Hogarth (fig. 16). Furthermore, as Lister maintains, Blake's unfinished *Landscape near Felpham* "amply demonstrates what the main body

of his work has led some to doubt, that he was capable of painting straightforward [i.e. perspectivally correct] landscapes" (Lister pl. 25).[5] The realistic perspective of this landscape is neither complex, nor is it expertly handled, yet it does testify to the artist's modest abilities in composing with perspective.

Blake's objection to the illusionism of linear perspective "places him in the mainstream of experimental movements in late eighteenth-century art" (Mitchell 36). Like his contemporaries, Fuseli, Flaxman, Barry, and Mortimer, Blake responded to the social conditions of the Enlightenment by rejecting the rationalist, empiricist framework that dictated that art should represent objective reality. Linear perspective profoundly affected British art in Blake's time, for it provided a system by which the empirical world could be graphically depicted in a standardized, mathematically consistent manner. Indeed, Brook Taylor's influential treatise increased the mathematical precision of projective geometry with the introduction of "a new method which was to become a particular characteristic of British perspective technique, namely the use of what was later called 'measure (or 'measuring') points'" (Kemp 150). Though this method "proved notably useful to architectural draughtsmen" (150), Blake would certainly have associated it with materialistic delusion, for it is founded on the perceptions of "'The Eye of Man a little narrow orb, clos'd up & dark, / 'Scarcely beholding the great light, conversing with the Void" (*M* 484). He questions rhetorically, "'Can such an Eye judge of the stars? & looking thro' its tubes / 'Measure the sunny rays that point their spears on Udanadan?" (485).[6]

Scientific perspective in its most mechanical form was represented by a wide variety of machines and devices available to aid artists in the correct handling of perspective. These instruments ranged from the simple stringed grid of Alberti's "velo" to elaborate, complex perspectographs and, with the invention of the camera obscura, verisimilitude could be achieved with mathematical precision.[7] Although the velo and the drawing frame had long been accepted as aids to guide the artist's eye, instruments such as the camera obscura, or its variant, the camera lucida, were generally regarded as too literal for the production of "high" art.[8] These devices were, however, used for the instruction of novices, and contributed to the growing interest in optical geometry and the increasing technical precision in naturalistic art.

Blake despised the "sordid drudgery of fac-simile representations of merely mortal and perishing substances" (*DesC* 576), for he believed that the social, spiritual, and economic consequences were disastrous: through the illusionist aesthetic, art is reduced to mechanical copying and artists become mindless labourers. Renouncing linear perspective and the illusionist aesthetic, Blake declares, "No man of Sense ever supposes that Copying from Nature is the Art of Painting; if the Art is no more than this, it is no better than any other Manual Labour; anybody may do it & the fool often will do it best as it is a work of no Mind" (*PA* 598). The Romantic artist escaped the dehumanizing effect of the rational, capitalist mechanization of life and labour by entrenching the creative imagination as the source of art.

NOTES

[1] My discussion of the history of perspective is based primarily on Edgerton's *Rediscovery* and *Heritage*. See Edgerton's *Rediscovery* (67) for the optical theories of the Greek philosophers.

[2] For descriptions of the influential treatises in British perspective theory see Kemp (148-162).

[3] The comparison of Blake's graphic art to bas-relief seems especially appropriate when engraving is viewed as a form of sculpture. Essick notes that "the plates of the illuminated books are shallow bas-reliefs. Even conventional engraving was generally considered to be a type of sculpture in Blake's time" (Essick *Printmaker* 215). The connections between sculpture and engraving are "intimated by every engraver [including Blake] when he inscribes a plate with his name followed by 's' or 'sc' - abbreviations for 'sculpsit'" (216).

[4] Rosenblum concludes by comparing *A Vision* with Georges Braque's *Houses at L'Estaque*, arguing that Blake's work "appears to prophesy the conditions of twentieth century art" (Rosenblum 191). Crehan refutes this claim, maintaining that Blake in no way represents the modernist aesthetic (Crehan 268 -270).

[5] The lines of this uncharacteristic landscape are, unfortunately, too faint for photocopied reproduction in this thesis. Please see Lister, plate 25.

[6] Damon identifies Udanadan as "the condition of formlessness, of the indefinite" (Damon 416).

[7] See Kemp (167-220) for descriptions and illustrations of a number of perspective machines.

[8] Reynolds owned a camera obscura, and Kemp speculates that it may have been "regarded as a subsidiary tool rather than as a precise guide for the making of a painting" (Kemp 198). Kemp also makes a convincing case for Vermeer's extensive use of the camera (194-196).

CHAPTER III: THE ORDERED IMAGINATION

(i)

Art and Science cannot exist but in minutely organized particulars.

(*J* 687)

Blake's rejection of scientific perspective was a decision of both aesthetic and ideological consequence. His resistance to the illusionist representation of objective reality was inextricably linked to the social and economic conditions of late eighteenth-century England, for he recognized that mechanical systems of artistic production posed a threat to the independence of visual artists. In response to the systematic dehumanizing of culture and the rational, capitalist organization of labour, the Romantic artist entrenched individual creativity, inspiration, and imagination as fundamentals of artistic practice that resisted the alienating potential of science and industry.[1]

The historical conditions that were responsible for Blake's support of the notion of the artist as an unmitigated creative genius also determined the characteristics of his pictorial style. Opposition to the oppressive forces of the art establishment was a crucial element in shaping Blake's approach to visual art, and "Certain formal tendencies already present in the art of the time are recombined, pushed to their extreme, then combined with other, hitherto suppressed traditions" (Crehan 190). The resulting aesthetic draws from a variety of influences in the depiction of conceptual images that oppose the

objective, empirical representation of the material world. Crehan describes this art as embodying four main features:

> an uncompromising linearity and emphasis on "spiritualized" human forms deriving both from Gothic art and from idealised human anatomies of neoclassicism; the use of expressive postures, involving distortion, together with an emotional and dramatic intensity of gesture, deriving from late mannerism; a diagrammatic concentration and use of *symbolic* gesture, deriving from Christian iconographic, emblematic and possibly Oriental tradition; and a strong anti-illusionism, deriving from the non-naturalistic tradition of medieval graphic design and illustration.
> (Crehan 190)

It is the last of these characteristics that is the central concern of this discussion.

When Blake renounced scientific perspective and naturalistic art, he rejected the illusionist ambition to make the picture plane appear as a window into three-dimensional space. In departing from the conventions of linear perspective, Blake moves away from a system of structuring designs according to the framework of a horizontal horizon line, a vanishing point (or points), and converging orthogonals (regularly suggested in Renaissance works by architectural features such as coffered ceilings and tiled floors). For the purposes of Blake's conceptual art, the picture plane becomes a flat, irrational space on which dramatic, expressive human forms are set. It is immediately apparent that these designs are organized in two-dimensional space by compositional schemata that invite comparisons between Blake's work and Gothic art. Blake's pictures are not spatially ordered by the pure insight of

imaginative vision, but are, instead, dependent on structural principles inherited from the medieval tradition that informed his work. It is particularly ironic that this influence shares the same geometrical foundation as scientific perspective and, before examining Blake's use of planimetric schemata, it is necessary to discuss the link with ancient geometry.

Greek systems of graphically representing three-dimensional space gradually disappeared in the early Middle Ages. Edgerton explains that when Rome subsumed Greek civilization,

> The new conquerors, unfortunately, were interested more in *ars* than in *scientia*, appreciating Greek geometry only when they found it applicable to military engineering and building technology. Furthermore, as Roman rule itself decayed in western Europe, theoretical geometry all but disappeared.
>
> (Edgerton *Heritage* 24)

Conventions for the pictorial representation of space shifted from the "unifying fluid" of early Christian works, to total planar compression of objects and space in the Romanesque era, to the eventual re-emergence of objects from the flattened plane in the Gothic period.[2] Medieval artists did not, however, abandon the practice of depicting three-dimensional volumes, and "In the pre-Renaissance medieval West ... the habit of illustrating natural forms by means of two-dimensional geometric schemata became a conscious strategy, not just passively reflecting but actively determining scientific attitudes" (Edgerton *Heritage* 28). The development of two-dimensional schematic systems for the portrayal of three-dimensional space allowed illustrators of scientific treatises

to diagram volumetric objects such as cones, cylinders, and spheres, albeit with limited practical application. Blake's watercolour, *The Night of Peace* (fig. 17) is composed on a similar principle for, while the Gothic arched stable is viewed from the side, the Christ child is viewed from above; to eyes trained in post-Renaissance perspective, Christ appears to float over the manger, whereas the medieval audience would have accepted the use of anomalous viewpoints as a convention for representing three-dimensional space. Drawing on the influence of his Gothic predecessors, Blake ironically adopts a technique of signifying objective reality that anticipated linear perspective.

In spite of the transformations in the handling of perspective, medieval art remained fundamentally dependent on the heritage of classical geometry. In *Continuity of the Platonic Tradition*, R. Klibansky certifies that Plato's *Timaeus*, the seminal work of geometrical metaphysics,

> was studied and quoted throughout the Middle Ages, and there was hardly a medieval library of any standing which had not a copy of Chalcidius' version ... The *Timaeus* with its attempted synthesis of the religious teleological justification of the world and the rational exposition of creation was, throughout the earlier middle ages, the starting point and guide for the first groping efforts towards a scientific cosmology. (Plato 21)

The Platonic idea of a geometrically designed universe combined with the twelfth-century revival of Euclid to lead medieval artists such as Villard de Honnecourt to devise planimetrical schema that were "superimposed upon the human form like an independent wire framework" (Panofsky 83).[3] These schema represented the universal Platonic forms rather than individual

manifestations of these eternal patterns, and the use of this scaffolding reflects the continuing legacy of ancient geometry that offered a "metaphysical interpretation of the structure of the human body" through the geometrically based, "God-ordained correspondence between the universe and man" (Panofsky 88). This use of geometry to reveal the eternal framework of Platonic Forms influenced the Renaissance theories of human proportion that sought to discover the ideal dimensions of the human body. In Renaissance art, however, reverence for classical canons and ancient authorities (especially Vitruvius) was augmented by the empirical studies of Alberti, Leonardo, and Dürer, as artists endeavoured to determine the ideal human form.[4]

Perhaps the most significant influence on Blake's handling of the human body was Michelangelo. Blake was inspired by Michelangelo's devotion to the nude, fondness of line, and dissatisfaction with Flemish painting; not surprisingly, Michelangelo's dialogues with Francisco de Hollanda, express opinions that were later echoed by Blake: Michelangelo asks, "And who is of such barbarous judgement (*barbaro juizo*) as to not understand that the foot of a man is nobler than his shoe, and his skin nobler that than of the sheep with which he is clothed?" (Summers 290) -- Blake proclaims, "I cannot paint Dirty rags & old shoes where I ought to place Naked Beauty" (letter 6 *K* 795); Michelangelo contends, "the man who can merely draw well and make a foot or a hand or a neck will be able to paint all created things" (Summers 290) -- Blake invites his audience to "attend to Hands & Feet, to the Lineaments of the countenances" (*LJ* 611) for these are the all-important "Infinite Particulars" (letter 4 *K* 792) of a work; Michelangelo states that "in a mere straight line

Apelles was known from Protogenes" (Summers 291) -- Blake champions the "distinct, sharp, and wirey" line, and states that "Protogenes and Apelles knew each other by this line" (*DesC* 585). Michelangelo also held the classical conviction that "the living human figure was the visible sign and sum of all creation" (Summers 286). Blake shared this opinion and concentrated on the "human form divine" ("The Divine Image" 117) as the central element of his visual art. Michelangelo sought an understanding of universals through careful attention to particulars for, as David Summers observes, "it is not delight in the appearance of things, but rather evidence of perfection ... which leads the mind through sight to prospect of the hierarchy of forms leading to God" (Summers 287). Blake similarly maintains that "General Forms have their vitality in Particulars" (*J* 738), and it is "the Divine- / "Humanity who is the Only General and Universal Form" (*J* 672).

A clear example of Michelangelo's influence on Blake's treatment of human body is the handling of the plunging figures in *The Rout of the Rebel Angels* (fig. 18) which Lister claims "were probably derived from engravings of Michelangelo's *Last Judgement* in the Sistine Chapel" (Lister pl. 45). Michelangelo's nudes were constructed with the benefit of a considerable knowledge of classical proportion, for the universal ideals described by the ancient canons guided the artist in his effort to emulate the "perfect intentional forms of nature" (Summers 313) that expressed the divine order.[5] Profoundly affected by Michelangelo's art and the classical sculpture from which it was derived, Blake inherited the idealized human form and, with it, a legacy of proportional geometry and Platonic metaphysics.

Blake did not, however, adopt outright the classical model of idealized human proportion. The human form is used expressively in his designs and is extensively subjected to mannerist distortions to serve the artist's conceptual needs.[6] In *The Ancient of Days* (fig. 9), for example, Urizen's elongated arm testifies to the enormous burden of his labour. The human form is similarly distorted in *Newton* (fig. 8), as the anatomically incorrect musculature of the protagonist's back suggests the segmented body of the mortal "worm of sixty winters" (*J* 661), and his fingers are contorted to the shape of the compasses that he holds. Many of Blake's most extreme distortions of the human form are found in his illustrations to Edward Young's *Night Thoughts* (note, for example, the radical treatment of the demon's left hand and leg in *Night IV, page 8* [fig. 19]). In these designs, human limbs are impossibly elongated to generate a sense of movement, creating a dynamic frame in which Young's verses were set. Blake made extensive use of such mannerist distortions throughout his visual art, for he applied the idealized human form as an expressive, subjectively proportioned image, not as a mathematically prescribed diagram.

Blake's familiar design, *The Dance of Albion* (fig. 20) has long been identified as a commentary on mathematical canons of human proportion. Blunt has noted that this picture likely alludes to the Vitruvius' diagram of a figure inscribed within a circle and square, reproduced in Vincenzo Scamozzi's *Idea dell' Architettura Universale* (Blunt 34).[7] Blake would also have encountered a description of Vitruvian proportional schema in Burke's *Essay* where the ideal human form is discussed as a canon for determining

architectural design. Burke summarizes: "they represent a man with his arms raised and extended at full length, and then describe a sort of square, as it is formed by passing lines along the extremities of this strange figure" (Burke 100). This practice of inscribing the human form in geometrical figures was well known in Blake's day and, although *The Dance of Albion* may well have been inspired by illustrations of a Roman sculpture of a dancing faun from Herculaneum (Blunt 34), the allusion to proportional diagrams seems obvious.

Mitchell is among the many critics who observe that Albion is freed from the rigid scaffolding "which allows the novice to grasp the quantitative, rational proportions of the figure" (Mitchell 55). Lister notes that "some have claimed that the design is a celebration of Blake's first year (1780) of freedom from his apprenticeship" (Lister pl. 10). This biographical interpretation is shared by Essick who adds that Blake's revision of this design in 1804 (fig. 21) celebrated "another release, this time from the more depressing features of copy work and Hayley's patronage, and an emergence into 'light and liberty' (letters 106)" (Essick *Printmaker* 182). In support of this interpretation, Essick links the legend that Blake added to the 1804 version -- "Albion rose from where he laboured at the Mill with Slaves" -- with the complaint that Blake voiced in a letter to William Hayley: "I was a slave bound in a mill among beasts and devils" (182).

Although both versions of *The Dance of Albion* mark the artist's release from conditions of aesthetic and economic bondage, Blake's designs owe a great deal to the very systems of classical proportion that he critiques as oppressive. Blake recognized the value of rational systems in guiding artist in

the composition of figures, and Robert Blake's sketchbook contains schematic studies prepared by William as models for the younger brother's practice.[8] These drawings include a study of a woman's head (fig. 22), and sketches of standing figures (figs. 23, 24) revealing the geometrical foundations and proportional schemata used in rudimentary composition. William would have followed similar models in developing his own skills as a youth at Par's drawing school, and many of the preliminary sketches for his later work reveal the use of geometrically derived schemata (figs. 25, 26). Although the use of compositional geometry aids the novice in acquiring the fundamental drawing skills, Blake holds that the artist must transcend these prescriptive canons, balancing rational method and imaginative insight. Thus, in *The Dance of Albion*, "liberation from the mill is also a pictorial triumph over the tyranny of 'mathematic form.' This liberation involves not a suppression or avoidance of the mathematical model, but its transformation and inclusion in a new context" (Mitchell 55). For the true artist, geometry is a tool, not an oppressor.

Blake's distinction between Gothic "Living Form" and Grecian "Mathematic Form" ("On Virgil" *K* 778) is built on the crucial distinction between the use of geometry as a subjectively handled "tool" and its prescriptive function as an "oppressor" of art. Although the Gothic practice of graphing figures with planimetric schemata preserved the Platonic notion of concordances between the human form and a geometrically ordered cosmology, the understanding of proportion in the Middle Ages differed significantly from classical and Renaissance ideas. Panofsky explains that the objective, anthropometric theories of classical proportion that were revived in the

Renaissance attempted to determine the normative dimensions of the human body in order to frame laws of aesthetics. Thus, the Polyclitian canon (the seminal authority of Greek anthropometry) sought to "ascertain the 'objective' proportions of the normal human being" (Panofsky 64); these proportions were expressed as mathematical fractions, providing artists with a code of harmonic relationships. In contrast to the ancients, Late Gothic artists relied "on subjective observation and equally subjective sentiment," and their schematization of forms "cannot be looked upon as either an aid to construction or as an expedient for determining the proportions" (88). According to Panofsky, the medieval system of proportions dispensed with the objective anthropometry of the classical method and "restricted itself to organizing the planar aspect of the picture" (73). Rather than following the rules of mathematical harmony, the Gothic artist used geometry subjectively to proportion the human form and the two-dimensional space in which it was set.

Blake's use of planimetrical schematization is immediately recognized as one of the fundamental characteristics that distinguishes his visual art. Virtually all of his work is structured by clearly pronounced schemata, at times so rigidly imposed as to elicit negative responses from otherwise favourable commentators.[9] In spite of the prevalence of geometrical order in Blake's art, surprisingly little critical analysis of significant depth has been devoted to this subject. With the exceptions of references to bilateral symmetry, observations regarding the geometrization of human forms consumed by reason (notably in *Newton* and *The Ancient Days*), and cursory discussions of recurring geometrical shapes, the study of the planar

organization of Blake's designs has not only been relatively neglected but, in fact, discouraged.

One interpretation of a compositional framework employed by Blake is "Blake's *Arlington Court Picture*: The Moment of Truth" (Essick *Visionary* 452-482) by Robert Simmons and Janet Warner. As a key to their analysis of the *Arlington Court Picture* (fig. 28), Simmons and Warner undertake a study of the plane geometry involved in what is certainly one of Blake's most elaborately structured designs. A number of aspects of the essay are, however, clearly problematic, and John Grant responds to these "basic errors of theory and methodology" (485) in his paper, "Redemptive Action in Blake's *Arlington Court Picture*" (483-491). Grant's critique of the Simmons-Warner paper, maintains that they "depend too heavily on the latent geometry of the picture as a guide to its meaning" (484). Although there are, admittedly, difficulties with Simmons and Warner's geometrically based study (most evident in the construction of their schematic diagram [fig. 29]), Grant does not object to this particular interpretation of the painting's geometry, but to the very practice of basing an analysis on the formal geometry of a picture. He contends:

> Blake himself had little use for diagrams -- he said they were the gods of the Greeks -- and was never content to let much rest on so abstract a basis. In a noteworthy discussion of the problems of interpretation Northrop Frye once usefully reminded us that the geometry of a (representational) painting is what we attend to last as we back away from it. And we can never know what to make of such geometry until we have enjoyed an intimate encounter with its more human levels of meaning.
>
> (Essick *Visionary* 484, 485)

These remarks need to be addressed, for they reflect methodological convictions that account for the relative lack of critical attention given to the planimetrical schemata of Blake's designs. Grant's approach supports the Romantic notion of the artist as a self-constructed visionary whose imaginative powers invest a work with its "human levels of meaning." Elements of form are secondary considerations which surface only after the viewer of a work has experienced an intuitive response to these "human" aspects.[10] Such convictions entrench a hierarchy in which the content of a work (where Grant locates the "human levels of meaning") holds priority over the structure. Grant aligns content with imagination and structure with reason, yet these are purely arbitrary associations. Blake's use of geometry in the conceptual ordering of his pictures clearly subverts the paradigm that identifies structure as a purely rational element. Furthermore, by subordinating "rational" structure to "imaginative" content, Grant devalues reason, creating an imbalance of contraries; in Blake's view, however, both Reason and Imagination are aspects of the Divine Humanity that are united in Eternity. Blake champions the Imagination in a revolt against the Enlightenment's Spectre of Reason that imbalanced the contraries through negation; when this Spectre is annihilated, Reason and Imagination are harmoniously balanced, and even the formerly unholy trinity of Bacon, Newton, and Locke is celebrated (*J* 745). Grant's reluctance to ascribe much value to the geometrical underpinnings of Blake's designs appears to be a strategy to defend Blake's work from critical methods that would negate the Imagination; what this approach accomplishes, however,

is simply the suppression of analyses which concentrate on the planimetrical schematization of Blake's visual art.

Perhaps the most extensive and provocative study of Blake's organization of two-dimensional space is presented by W.J.T. Mitchell in *Blake's Composite Art* (58-77). Mitchell begins his analysis by acknowledging the use of linear, geometrical forms as schematizing elements in Blake's designs. The use of schematized, two-dimensional space serves to "create a sense that the space 'external' to the human form is nonobjective, a created entity or projection of the consciousness it contains" (Mitchell 59). Mitchell cautions that "Terms such as 'outer' and 'inner' may mislead us, however, into seeing Blake's style as governed by a kind of subjectivism or solipsism, when his real point is to convey the continuity and interplay between body and space, as a symbol of the dialectic between consciousness and its objects" (59). The subjective and objective realms both reside in the human consciousness and, according to Mitchell, "Blake avoids the objective, homogeneous, visual rendering of pictorial space, then, not to produce a sense of other-worldly subjectivism, but to restore a tactile, synaesthetic quality to pictorial form" (59-60). Mitchell frames a compelling argument, contending that Blake's pictorial style utilizes recurring schematic forms which graphically structure designs in the images of sensory openings; the circle, spiral, arabesque, and arch correspond respectively to the eye, ear, tongue, and nose (fig. 30). Through this "synaesthetic" style, Blake's pictures function as "stained glass windows constructed to fit our sensory openings" (Mitchell 74). Mitchell concludes:

> In formal terms, then, the function of Blake's schematic forms is to give structural consistency to his style; in conveying his "Fourfold Vision" -- the world as sensed through *all* the gates of the body, not merely the eyes; and in rhetorical terms, it is a way of improving the sensual enjoyment of his spectators, designing visual illusions which continually demand and imply all the other senses in their structures. (74).

There are, however, a number of difficulties with Mitchell's neatly dovetailed interpretation. To begin, each of the schematic forms that Mitchell associates with particular sensory openings has been extensively employed throughout the history of graphic representation. The fact that Mitchell (or Blake for that matter) identifies the spiral with the ear is due to conventions that accept this graphic image as signifying the human ear. Despite the pre-condition of his own comprehension of the symbolic values of these images, Mitchell claims, "It is important to recognize that the spiral, S-curve, circle, and inverted U are *not* symbolic forms in the iconographical sense, but rather the schematic constituents of a pervasive symbolic style .... these schematic forms do not represent or symbolize anything in themselves" (63, 64). When the symbolic overtones are removed, however, these linear schemata are reduced to abstract forms which retain no necessary association with the sensory organs. Furthermore, Mitchell allows such extreme variations of these forms (particularly the arabesque and the arch -- see fig. 30) that no meaningful association can be consistently maintained. Not only does Mitchell accept degrees of the arabesque that vary from the straight line to the pronounced S-

curve, but he also links this schematic form with the sensory organ of the tongue in spite of a contradiction in the very lines that Mitchell quotes to support his argument: "Your withring lips and tongue shrink up into a narrow *circle* [my italics]" (63). Although Mitchell provides some valuable insights into Blake's use of linear schemata, his contention that these recurring forms comprise a "'synaesthetic' pictorial style" (74) is highly problematic.

The planimetrical schematization of Blake's designs goes beyond the use of a set of linear forms such as those which Mitchell associates with the senses. Pictorial space is completely organized in Blake's work and, although certain recurring elemental shapes figure prominently, these are ordered by armatures that structure the entire picture plane. This geometrical scaffolding and the linear particulars that are arranged within it function as the bounding lines that give form to imaginative energy. Blake's aesthetic does not call for the destruction of rational order but for the complementary co-existence of Reason and Imagination, and, accordingly, he proclaims that "an Original Invention" can only exist through "Execution, Organized & minutely delineated & Articulated " (*PA* 595). Unlike the illusionist method that creates an image of empirical reality based on the generalizations of optical geometry, Blake's schematization of pictorial space allows for the conceptual depiction of things as they are perceived in Eternity. He insists that "Art & Science cannot exist but in minutely organized Particulars / 'And not in generalizing Demonstrations of the Rational Power" (*J* 687). By viewing through the "Eye of the Imagination" (*AB* 775), the visionary sees lineaments that are "infinitely more perfect and more minutely organized than any thing seen by his mortal eye"

(*DesC* 577). Planimetrical schematization is an aspect of Blake's pictorial style that represents perception with the "imaginative and immortal organs" (*DesC* 576) rather than the "Corporeal or Vegetative Eye" (*LJ* 617).

(ii)

And who shall bind the infinite with an eternal band?

(*E* 239)

Although compositional schemata are apparent in virtually all of Blake's pictures, his most familiar and perhaps most thoroughly analyzed design, *The Ancient of Days* (fig. 31), serves as a fine example to demonstrate the relationship between Blake's visionary beliefs and his highly stylized illustrative technique. Blake himself felt that this was one of his most successful designs and, as many critics have noted, he coloured a copy on his death-bed for Frederick Tatham. As the frontispiece to the prophetic book *Europe*, this picture is readily associated with passages that relate Urizen's moment of supreme, rational glory; printed independently, the plate retains its correlation to the corpus of Blake's work, requiring for the viewer to be familiar with Blake's personal mythology in order to see beyond the level of the literal.

In the context of Blakean myth, *The Ancient of Days* depicts the genesis of the material world by the aged patriarch Urizen -- the human psyche's faculty of reason personified. Following the cyclic path of the zodiac, Urizen inauspiciously moves from the realm of Reason in the South to the northern realm of the Imagination:

> "Again the night is come
> "That strong Urthona takes his rest"
> "And Urizen, unloos'd from chains,

"Glows like a meteor in the distant north.
(*E* 239)

Urthona, the Zoa of the Imagination (materially manifested as Los), sleeps as Urizen escapes his fetters and imposes the binding doctrines of reason on the abyss. The corporeal sensory organs are formed and the "fluxile eyes" are turned into "two stationary orbs, concentrating on all things" (*E* 241), perceiving only the physical light that is described by science. As a result, the serpent of materialism is created and its temple is built by empirical science in Bacon's Verulam: "Then was the serpent temple form'd, image of the infinite / Shut up in finite revolutions, and man became an Angel, / Heaven a mighty circle turning, God a tyrant crown'd" (*E* 241). With virtuous intent, the misguided demiurge attempts to bind the infinite under "One King, one God, one Law" (*U* 224).

The use of the compasses as the instruments of Urizen's labour is especially noteworthy. In "Blake's 'Ancient of Days': The Symbolism of the Compasses" (Essick *Visionary* 71-103), Anthony Blunt investigates the various sources which contribute to Blake's design, tracing the emblematic use of compasses to medieval and Renaissance works in which they serve as symbols of mathematics, science, and philosophy. Blunt asserts that, for Blake, compasses are instruments that signify Platonic philosophy and rationalist knowledge. Compasses are particularly suited to Urizen whose very name has long been identified as a play on "your reason." Kathleen Raine also suggests that Urizen is drawn from the Greek verb "to bound" or "to limit" (Raine

Tradition 56 v.2). Like compasses, reason circumscribes the infinite, leaving a mechanistic universe in its place.

The Ancient of Days depicts Urizen reaching out of the nimbus that encircles him to chart the abyss, impressing the cold mathematics of his reasoning power on a Lockean *tabula rasa*. Urizen's eyes are closed to the infinite as he labours with his compasses. Likewise, in the colour print *Newton* (fig. 8), the fallen spirit of the Enlightenment sits at the bottom of the sea of materialism with his back to the splendid sea of life; compasses in hand, Newton concentrates only on the geometrical figure he has drawn. The geometer depicted in *There is No Natural Religion* (fig. 7) is also deluded by fallen "single vision," for he fails to understand that "He who sees the Infinite in all things, sees God. He who sees the Ratio only, sees himself only" (*NNR* 98). The Urizenic individual sees only the ratio determined by reason -- the principles which support linear perspective; for the visionary, however, it is possible

> To see a World in a Grain of Sand
> And a Heaven in a Wild Flower,
> Hold Infinity in the palm of your hand
> And Eternity in an hour.
> ("Auguries of Innocence" *PPM* 431)

The imaginative correlate to the compasses of reason are the tongs with which Los labours at his forge. Los fashions the form that binds Urizen, keeping reason in check and "'Giving a body to falsehood that it may be cast off for ever" (*J* 631). The flaming sword that severs the tree of doctrinal, Urizenic

religion is also forged with these creative tongs. As David Erdman explains, Los poses with his "compass-like tongs" for a "curtain call" in the final plate of Jerusalem (fig. 32); his tongs are "a creative counterpart of the compasses in *Europe* i" (Erdman 379), and symbolize the redemption of reason. The transfigured serpent temple that appears behind Los leads Erdman to speculate, "Perhaps his building a new Jerusalem is precisely a matter of *illuminating* the serpent line, the Jerusalem we have always known" (Erdman 379). Similarly, the transformation of the compasses is realized through the illumination of Los' tongs. As the tools of the smith, tongs serve the creative imagination in fashioning shapeless metal into an organized form; the compasses of reason perform a related function as they impose order on the infinite. The distinction between these instruments lies in the relationship between the creator and the product: for Blake, the channeling of imaginative energy yields products that possess human value and serve their maker; the Urizenic use of reason for its own sake, however, results in the triumph of the system over its creator -- the relationship between the instrument and its user is perversely inverted.

The *Ancient of Days* demonstrates such an inversion as Urizen becomes the servant of his compasses. The burden of weight (ironically due to Newtonian gravity) pulls downward, elongating Urizen's outstretched arm and placing a great strain on his back. Compared with the effortless manner with which Los holds his tongs (fig. 32), Urizen's difficult labour implies his subjugation to the compasses. Urizen's body itself has become angular in a reflection of his geometrical reasoning. Crehan notes that

> Urizen's body forms a triangle within a circle, whose centre is Urizen's brain ... There is some tension too in the leftward pull of Urizen's wind-blown hair and the downward pull of his arm. The design consists of horizontals, verticals, parallel diagonals, and two concentric circles which can be diagrammatised [see fig. 33].
> (Crehan 271)

The highly structured schematism of this design extends beyond Crehan's observations to lock Urizen in a grid of self-imposed fixity. Unlike *The Dance of Albion* (fig. 20), in which the structure of the design conveys a vibrant dynamism, *The Ancient of Days* suggests stasis by the Urizenic order imposed on pictorial space. The weight of the broad based, dark triangle that is formed within the compass arms is countered by the buoyancy of the concentric circles traced by Urizen's cranium and the sphere. The plate is given additional fixity by the balanced placement of the compass triangle's apex and the circle's centre point -- both are centered on the vertical axis, proportionally distanced from the upper and lower edges of the picture and the horizontal axis (fig. 31, overlay 1). Furthermore, the diagonals which follow the compass arms, extend to meet the picture frame at the vertical point of the sphere's centre (overlay 2, dashed lines). The diagonals that travel along the hypotenuse of Urizen's triangulated human form and the line suggested by the large cloud passing in front of the disc also contribute to the design's rigid structure, for they meet the frame at the vertical point of the compass triangle's apex (overlay 2, dotted lines). The symmetrical division along the vertical axis implies fragmentation as well as fixity, for the two elementary geometrical forms (the circle and triangle) are bisected as they would be in a standard geometry exercise.

Bilateral symmetry is a common device in Blake's visual art and can allude to wholeness and harmony in pictures such as *The Dance of Albion*, or the contrary process of division as is the case in *The Ancient of Days*. The spatial arrangement of this design is ironically centered on Urizen's pivot foot which roots his physical form as he orders material space. A strong wind holds his beard at a right angle, emphasizing his immobility.

Blake insists that he perceives the subjects of his designs through Imaginative Vision. As Crehan points out, Blake's visions are illuminated by the light of Eternity (Crehan 251-256), and it is this light, not that of the material sun, which is frontally cast on Urizen in *The Ancient of Days*. The guinea-sun of reason (*LJ* 617), which is Urizen's sphere, eclipses the light of the imaginative realm and accounts for the back-lighting of *The Ancient of Days*. The frontal, visionary light of eternity contradicts naturalistic lighting and "defies rational explanation through its conscious anti-illusionism" (Crehan 271), presenting an image drawn not from delusory "objective" reality but from visionary insight. Blake's imaginative, conceptual lighting and the lack of a receding background combine to diminish spatial depth of *The Ancient of Days*. Pictorial space is, thus, two-dimensionally flattened, discarding the illusionist techniques of linear perspective and emphasizing the planimetrical schemata of the design.

The visual irony of *The Ancient of Days* becomes apparent when the rigidity of the design's schematic organization is exposed. Crehan comments that

> The first impression conveyed by *The Ancient of Days* is one of divine creative power, but this is negated by the "minute particulars" and underlying irony of the whole design. Urizen is not "God" at all, nor is he creative. He is merely the "Supreme Being" of rational theology. Who resides in the breasts of the dominant class. Blake's visual language opposes as well as exposes the profound irrationality of a governing Reason that tries to make the infinite finite, binds what cannot be bound, and with terrible compulsion keeps on measuring what cannot be measured. (Crehan 273)

Crehan's analysis of the ironic function of this design is most convincing, but his assertion that "Blake's visual language ... is ironic *and satiric* [my italics]" (Crehan 273) seems to have missed the point. Mitchell's "reading" of *The Ancient of Days* and *Newton* avoids such an oversight and recognizes that creation is "an act of mercy in that it prevents man from falling endlessly into the 'indefinite'" (Mitchell 56). He continues:

> the contracted figures of Newton and Urizen, the archetypal creators of boundaries, are not simply being satirized, and they certainly are not being ridiculed of depicted as evil. When Blake wanted a figure to look ridiculous he knew how to go about it ... see, for instance, his treatment of the Popish George III in plate 11 of *Europe* [fig. 34]. Urizen and Newton are more accurately seen as examples of heroic or sublime error: they may be mistaken, but they cannot be ignored or dispensed with, and the clarifying power of their mistakes can serve as a catalyst for the progress of vision. (56)

Urizen labours heroically in his effort to "bind the infinite" (*E* 239), but in this error he binds himself within the confines of his system of reasoning. Fixed in

static, schematized, pictorial space, his human form contorted to geometrical shape, Urizen's moment of glory is depicted in an ironically structured design.

When the geometrical scaffolding of *The Ancient of Days* is exposed, Blake's use of this rigid schematic framework gives rise to an apparent double irony: the aesthetic success of the picture seems to be derived from its purely rational organization of forms. To unravel this "double irony" it is necessary to return to the distinction between linear perspective and planimetrical schematization. Blake eschewed the illusionist convention of linear perspective, for it constructs an image of material reality through the application of objective, empirically based, optical geometry. The schematization of two-dimensional space also involves the application of geometrical reasoning, but in this method, rational order is balanced by imaginative insight. The artist is not confined to the practice of copying the perceptions of "Time & Space fixed by the Corporeal Vegetative Eye" (*LJ* 614) and, with his senses cleansed of fallen single vision, Blake sees instead with his "Imaginative Eye" (*LJ* 606). The schematic organization of Blake's designs gives structure to his visionary insight. Like the "firm and determinate outline" (*DesC* 585) that distinguishes form, geometrical order channels imaginative energy and serves as the means by which visionary perception is manifested as art.

Planimetrical schematization is an aspect of Blake's pictorial style that balances Reason with Imagination and liberates the artist from the oppressive doctrine of illusionism. As with many elements of Blake's art, however, the organization of his designs can suggest contrary meanings depending on the

context of the work. Emblems such as the compasses, for example, also derive their meaning from the contexts in which they appear. The use of compasses can signify the imposition of rationalism in pictures such as *The Ancient of Days*; alternatively, in *Christ in the Carpenter's Shop* (fig. 35), the ease with which the young Christ handles the compasses demonstrates the resolution of the conflict between reason and imagination.[11] The schematic organization of Blake's designs can similarly yield contrary meanings. The schematism of *The Dance of Albion* is as pronounced and thorough as that which is employed in *The Ancient of Days*, yet these pictures illustrate opposing processes. Whereas the harmonious balance of the former design celebrates liberation from the fetters of the reasoning Spectre and the return to fourfold vision, the structure of the latter reflects the binding laws of Urizen's fallen rational power.[12] Blake extensively employs schemata to serve emblematic functions throughout his visual art. The circle and triangle which are prominently featured in *The Ancient of Days* are appropriate elementary plane figures for the depiction of Urizen's incipient act. The illustrations to The *Book of Urizen* and The *Song of Los* are composed on similar schemata, effectively symbolizing the primordial content of these prophetic books (figs. 36, 37).

It should be recognized, however, that planimetrical schematization does not simply perform a symbolic function; it is a fundamental characteristic of Blake's pictorial style. Blake's organization of pictorial space is not dependent on an empirically based system that emulates material reality, for his designs are conceptual images in which "Length, Bredth, Highth again Obey the Divine Vision" (*J* 664). Reason and Imagination are unified in the execution of these

designs and, although some plates are structured by frameworks that symbolize the triumph of Reason, the artistic process that generates these pictures is not limited by single vision. The apparent double irony of *The Ancient of Days* is, thus, dispelled, for the rational schematization of Blake's visual art is a method that works in concordance with Imaginative Vision.

NOTES

[1] This notion of the individual as the unmitigated creator of meaning is an expression of the "bourgeois illusion of individual freedom" that Crehan interprets as "the product of a historic split within the intelligentsia" (Crehan 50). This thesis is primarily concerned with the aesthetic influence of the social and economic conditions that are detailed in Crehan's *Blake in Context* but, in order to focus on Blake's artistic practice, I have devoted little of this paper to the historical evidence and materialist analysis that Crehan provides.

In keeping with this conception of the Romantic artist as the creative talent who invests a work with meaning, Blake's commentators have often characterized his pictorial style as the expression of a purely personal vision. If, however, art is seen as discourse practiced through the signifying of visual, rather than linguistic signs, the figure of the artist, like the author, can be seen in a poststructuralist light. Michel Foucault opposes the claim that the individual is the originator of discourse who constructs meaning and issues it forth into the world. Foucault sees the subject as a function existing between spaces in the circulation of discourse, and he asserts: "it is a matter of depriving the subject (or its substitute) of its role as originator, and of analyzing the subject as a variable and complex function of discourse" (Foucault 118). The author does not fill a work with significations but, instead, "allows a limitation of the cancerous and dangerous proliferation of significations within a world where one is thrifty not only with one's resources

and riches, but also with one's discourses and significations" (Foucault 118). This principle of thrift regulates the economy of meaning, constructing the artifice of value by impeding the free circulation of discourse. Seen in this light, the Romantic artist's creative genius is established as a principle of exclusion that limits the circulation of discourse to those individuals who have realized their imaginative potential. Although imaginative insight resists the mechanization and commodification that threatened art in eighteenth-century England, it contributes to the notion of art as the product of a free, self-determining subject. Thus, as the "author" of a work, the artist appropriates significations and is credited as the originator of discourse that is claimed as the expression of an individual's unique sensibility.

[2] This gloss on the transitions in medieval representations of space is a direct précis of Edgerton's study (*Rediscovery* 158).

[3] For examples and interpretations of Villard's schema, see Panofsky (83-88).

[4] See Panofsky (89-107) for details on Renaissance theories of proportion.

[5] Summers provides an informative analysis of Michelangelo's studies in proportion (380-396).

[6] Although the late work of Michelangelo has been described as "mannerist," Summers asserts, "he was not a mannerist, nor was he considered to be a mannerist by most Renaissance writers, even though his license and extreme 'difficulty' were often condemned" (Summers 19). In any case, Michelangelo's early work, like that of Raphael (who was equally revered by Blake), represented the height of Renaissance classicism.

[7] Blunt's observations were first published in "Blake's Glad Day," *Journal of the Warburg Institute*, II (1938), 65ff.

[8] It is widely accepted that William Blake was the source of these studies; however, Butlin notes that "David Bindman, although he accepts that 'Robert's participation is slightly more plausible than William's,' doubts whether either artist was involved" (Butlin 617). The authenticity of these sketches is not, however, critical to my argument.

[9] Crehan's unfavourable comments regarding *The Holy Family, or Christ in the Lap of Truth* (fig. 27) are unusually evaluative for his largely objective analysis. He writes: "my own impression here is that of a weak, derivative, and nerveless Byzantine stasis. The symmetry is all too worked out, too overdone: the eye flags when faced with such predictable reconciliations" (Crehan 264).

[10] There are some difficulties with Grant's reference to Frye's reminder that "the geometry of a (representational) painting is what we attend to last as we back away from it" (Essick *Visionary* 484, 485). First, the need to back away from a painting to take in its geometry only applies to works of monumental dimensions; since even Blake's largest paintings rarely exceed one square meter in area, the geometrical schemata of his designs are immediately apparent. Secondly, although the compositional geometry of a painting may be among the final elements considered by some critics, this reflects the priorities of a particular critical method rather than the intrinsic character of a work.

[11] See Blunt's analysis of this picture (Essick *Visionary* 82, 83).

[12] See Mitchell's comparison of these designs (Mitchell 54-56).

CONCLUSION

Planimetrical schematization is one of the most distinctive characteristics of Blake's visual art. In rejecting the illusionism of linear perspective, Blake developed a pictorial style that unified the rational and imaginative faculties; the contrary forces of Reason and Imagination are harmoniously balanced as complementary elements in his work. Just as Newton, Bacon, and Locke are redeemed when the reasoning Spectre is annihilated (*J* 745), so is geometry liberated when it is employed in the creative organization of art. Like the mysticism of cabbala numerology, the geometrical structure of Solomon's Temple, or the fourfold order of Golgonooza and Jerusalem, Blake's designs are composed on geometrically inspired schemata. As geometry is redeemed, Grecian "Mathematic Form" is transfigured into Gothic "Living Form" ("On Virgil" *K* 778).

As argued throughout this thesis, Blake's aesthetic developed in response to the rationalism and empiricism of the Enlightenment. He objected to the illusionist aesthetic, for the scientifically demonstrable laws of linear perspective reduced artists to mechanical labourers confined to copying the material world. The production of visual images based on a conceptual framework, however, defended the artist from the dehumanizing forces of science and industry that Blake described as an "Empire against Art" (*Lao* 777). Blake's planimetrically schematized designs resist the systematic

rationalization of art, for they are ordered according to the Romantic artist's sensibility and creative insight. The artist's humanity is preserved, for these works cannot be conceived by scientific or mechanical means. Blake's pictorial style, thus, produces visual images that are consistent with the social values of his visionary ideology.

WORKS CITED OR CONSULTED

Alberti, Leon Battista. *On Painting.* 1435. Trans. Cecil Grayson. London: Penguin Books, 1991.

Bentley, G. E., Jr. *Blake Records.* London: Oxford University Press, 1969.

Bindman, David. *Blake as an Artist.* Oxford: Phaidon Press, 1977.

- - - - -. *The Complete Graphic Works of William Blake.* London: Thames and Hudson, 1978.

Butlin, Martin. *The Paintings and Drawings of William Blake.* New Haven: Yale University Press, 1981.

Blake, William. *Blake: Complete Writings.* Ed. Geoffrey Keynes. London: Oxford University Press, 1976.

Blunt, Anthony. *The Art of William Blake.* New York: Columbia University Press, 1959.

Bouleau, Charles. *The Painter's Secret Geometry: A Study of Composition in Art.* 1963. New York: Hacker, 1980.

Bredvold, Louis I. *The Brave New World of the Enlightenment.* Ann Arbor: The University of Michigan Press, 1962.

Burke, Edmund. *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful.* 1757. Ed. James T. Boulton. London: Routledge and Kegan Paul, 1967.

Crehan, Stewart. *Blake in Context.* Dublin: Gill and MacMillan, 1984.

Cumberland, George. *Thoughts on Outline, Sculpture, and the System That Guided the Ancient Artists in Composing Their Figures and Groups.* London: W. Wilson, 1796.

Damon, S. Foster. *A Blake Dictionary.* Hanover: Brown University Press, 1988.

Easson, Roger R. and Robert N. Essick. *William Blake: Book Illustrator.* Vol. II. Memphis: American Blake Foundation, 1979.

Eaves, Morris. *William Blake's Theory of Art.* Princeton: Princeton University Press, 1982.

Edgerton, Samuel Y., Jr. *The Heritage of Giotto's Geometry.* Ithaca: Cornell University Press, 1991.

- - - - -. *The Renaissance Rediscovery of Linear Perspective.* New York: Basic Books, 1975.

Erdman, David V., and John E. Grant, eds. *Blake's Visionary Forms Dramatic.* Princeton: Princeton University Press, 1970.

Erdman, David V. *The Illuminated Blake.* Garden City: Anchor Books, 1974.

- - - - -, ed. *The Notebook of William Blake.* Oxford: Oxford University Press, 1973.

Essick, Robert N., and Donald Pierce, eds. *Blake In His Time.* Bloomington: Indiana University Press, 1978.

Essick, Robert N., ed. *The Visionary Hand: Essays for the Study of William Blake's Art and Aesthetics.* Los Angeles: Hennessey and Ingalls, 1973.

- - - - -. *William Blake: Printmaker.* Princeton: Princeton University Press, 1980.

Foucault, Michel. "What is an Author?" 1979. Trans. Josue V. Harari. *The Foucault Reader*. Ed. Paul Rainbow. New York: Pantheon Books, 1984. 101-20.

Frye, Northrop. *Fearful Symmetry*. 1947. Princeton: Princeton University Press, 1969.

Gombrich, E.H. *Art and Illusion*. Princeton: Princeton University Press, 1960.

Hagstrum, Jean H. *William Blake, Poet and Painter*. Chicago: University of Chicago Press, 1964.

Harper, George Mills. *The Neoplatonism Of William Blake*. Chapel Hill: The University of North Carolina Press, 1961.

Kemp, Martin. *The Science of Art*. New Haven: Yale University Press, 1990.

Keynes, Geoffrey. *Blake Studies*. 2nd ed. Oxford: Oxford University Press, 1971.

King, James. "The Meredith Family, Thomas Taylor, and William Blake", *Studies in Romanticism*. II (1972) 153-7.

- - - - -. *William Blake: His Life*. New York: St. Martin's Press, 1991.

Kline, Morris. *Mathematics: The Loss of Certainty*. New York: Oxford University Press, 1980.

Lister, Raymond. *Infernal Methods: A Study of William Blake's Art Techniques*. London: Bell, 1975.

- - - - -. *The Paintings of William Blake*. Cambridge: Cambridge University Press, 1986.

Mellor, Anne Kostelanetz. *Blake's Human Form Divine*. Berkeley: University of California Press, 1974.

Mitchell, W.J.T. *Blake's Composite Art.* Princeton: Princeton Univesity Press, 1978.

Panofsky, Erwin. *Meaning in the Visual Arts.* Garden City: Doubleday Anchor Books, 1955.

Plato. *Timaeus and Critias.* Trans. Desmond Lee. Harmondsworth: Penguin Books, 1987.

Raine, Kathleen. *Blake and Tradition.* 2 vols. Princeton: Princeton University Press, 1968.

- - - - -. *William Blake.* London: Thames and Hudson, 1970.

Reynolds, Joshua. *Discourses on Art.* 1797. Ed. Robert R. Wark. New Haven: Yale University Press, 1975.

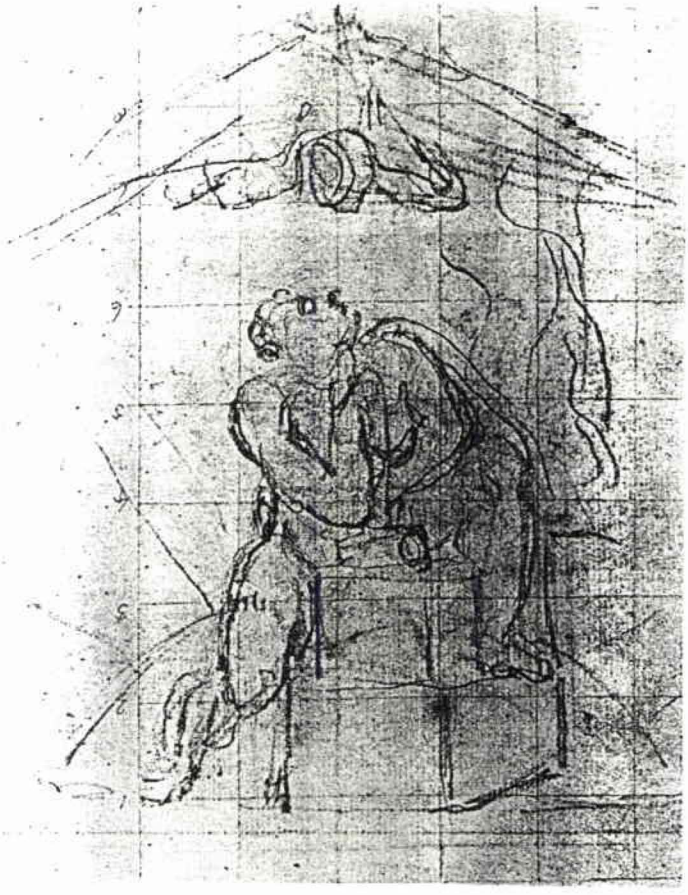
Rosenblum, Robert. *Transformations in Late Eighteenth Century Art.* Princeton: Princeton Universty Press, 1967.

Sandby, William, *The History of the Royal Academy of Arts.* Vol. I. 1862. London: Cornmarket Press, 1970.

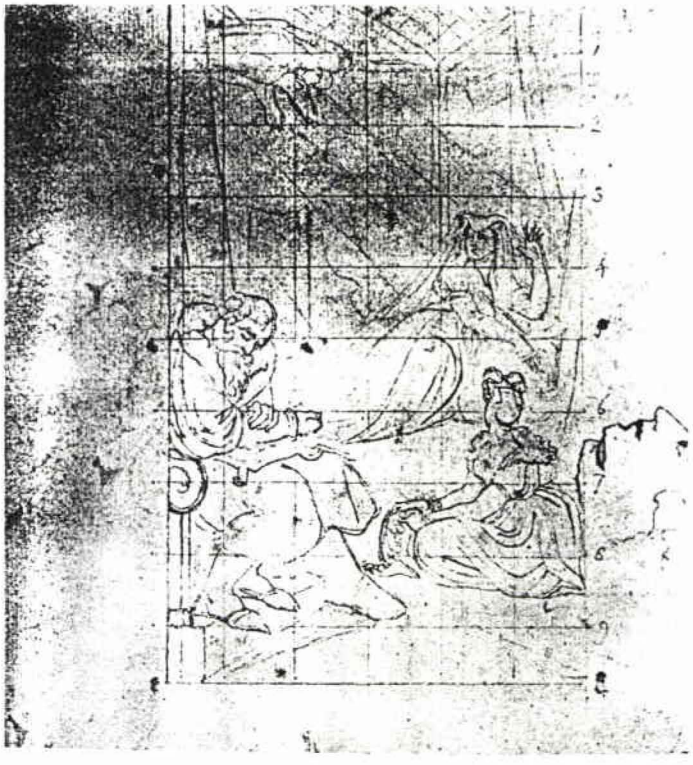
Summers, David. *Michelangelo and the Language of Art.* Princeton: Princeton University Press, 1981.

Warner, Janet. *Blake and the Language of Art.* Kingston: McGill-Queen's University Press, 1984.

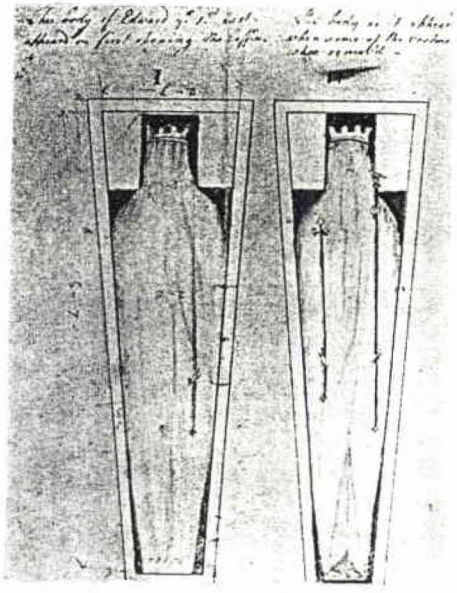
Winckelmann, Johann Joachimm. *Reflections on the Painting and Sculpture of the Greeks.* 1765. Trans. Henry Fusseli. Menston: Scolar Press, 1972.



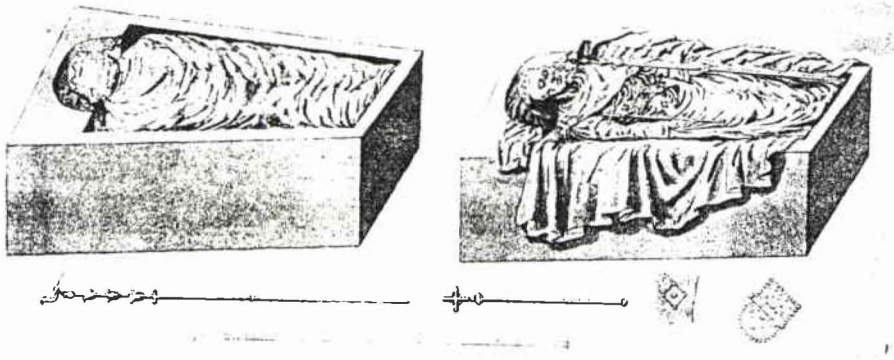
1. *Sketch for "Jerusalem" Plate 6: Los and his Dream.* (Butlin 797)



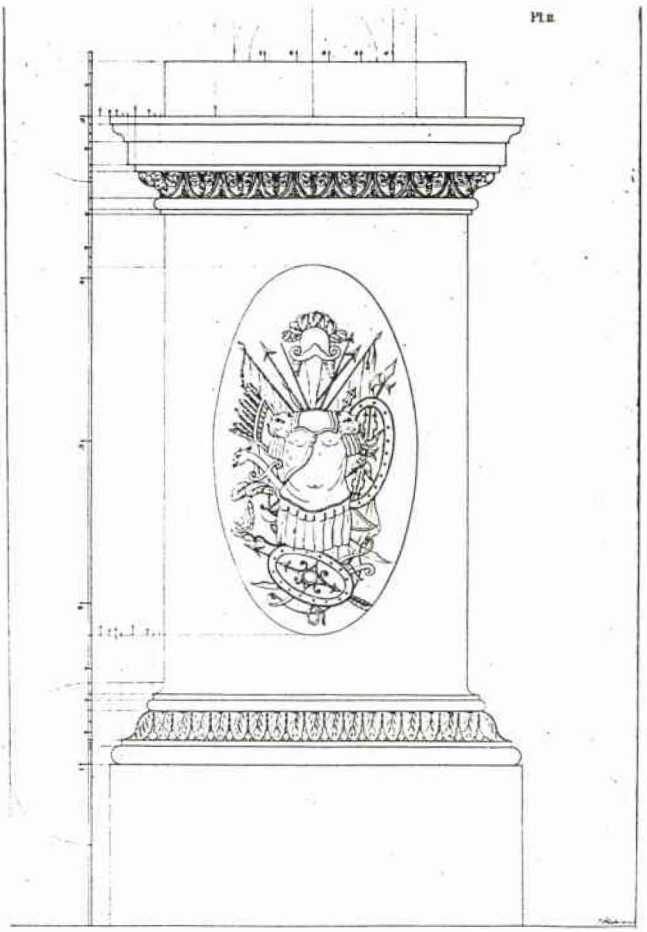
2. *Queen Katharine, Awakening from her Dream, after Fuseli.* (Butlin 796)



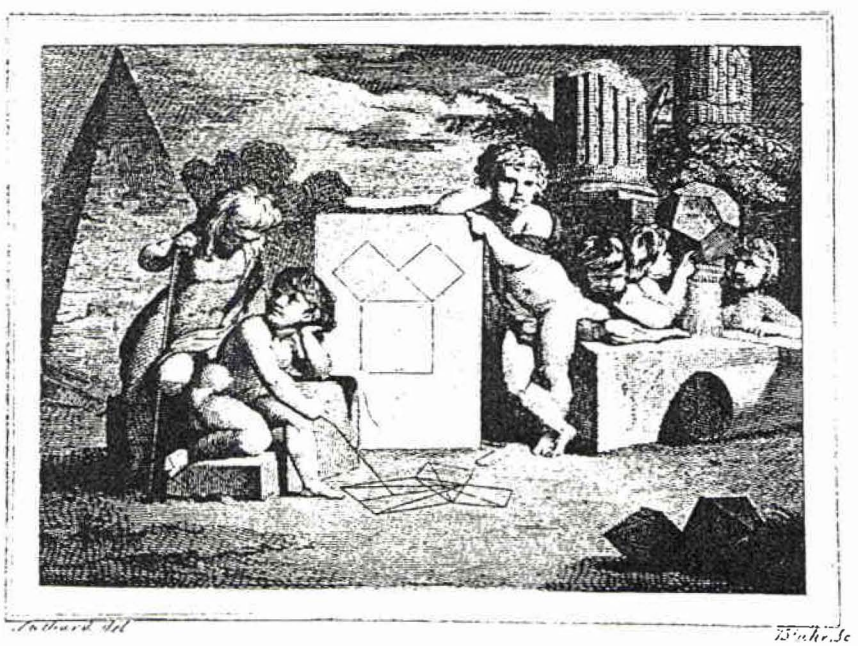
3. *The Body of Edward I in his Coffin (two rough drawings).* (Butin 1)



4. *The Body of Edward I in his Coffin (two finished drawings).* (Butlin 2)



5. *A Proposition for a New Order in Architecture Pl. II.* (Easson XVII)



6. *An Introduction to Mensuration and Practical Geometry Pl. 1A.* (Essick *Printmaker* 23)

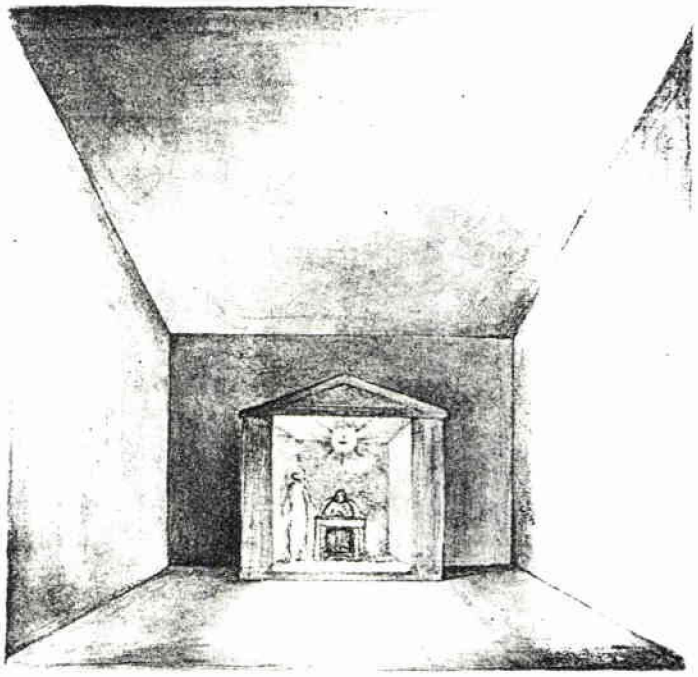
7. *There is No Natural Religion* [Second Series] *Application.* (Bindman *Complete* 27)

8. *Newton.* (Butlin 394)

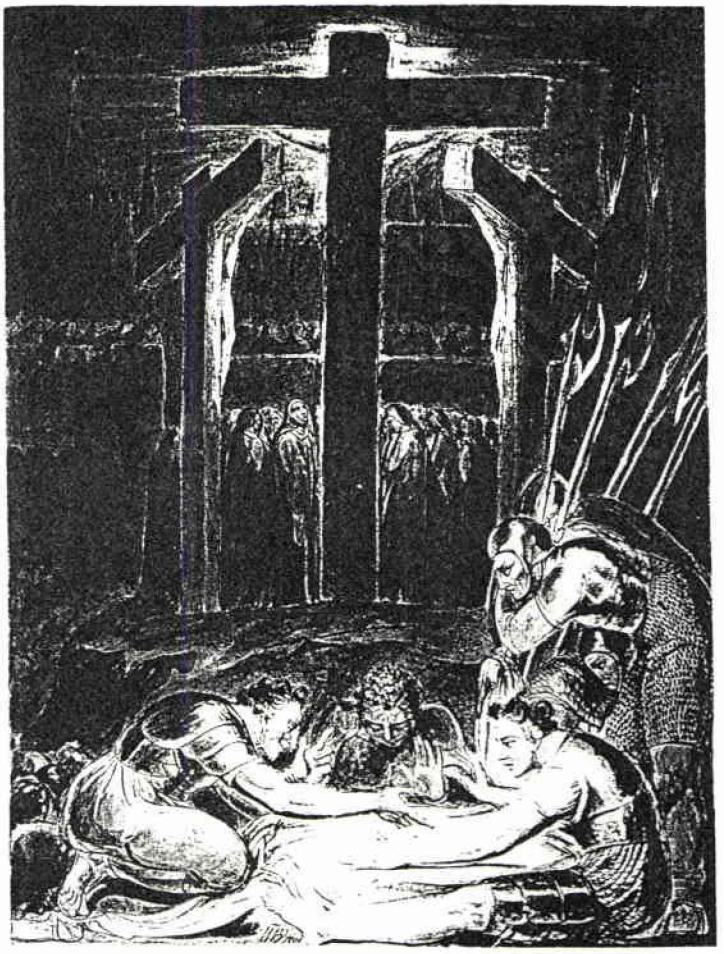
9. *The Ancient of Days.* (Essick *Printmaker* 106)

10. *Our End Is Come.*
(Butlin 333)

11. *The Good and Evil Angels Struggling for Possession of a Child.*
(Butlin 400)



12. *A Vision.*
(Butlin 984)



13. *The Soldiers Casting Lots for Christ's Garment.*
(Butlin 571)

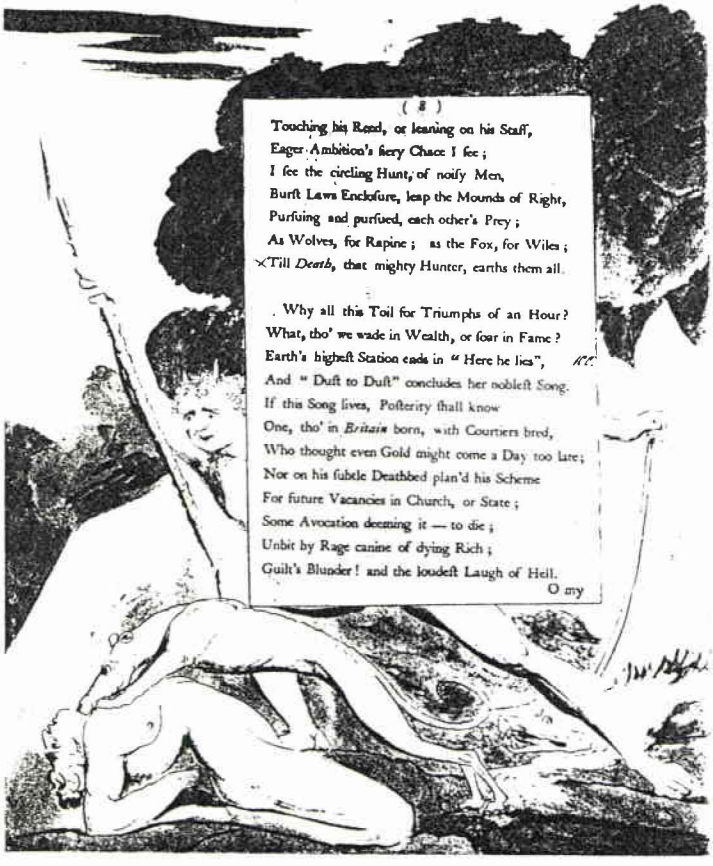
14. *Pestilence*, [c. 1780-4]. (Butlin 188)

15. *Pestilence*, [c. 1779-80]. (Butlin 187)

16. *Beggar's Opera, Act III, after Hogarth.*
(Easson XXXIV)

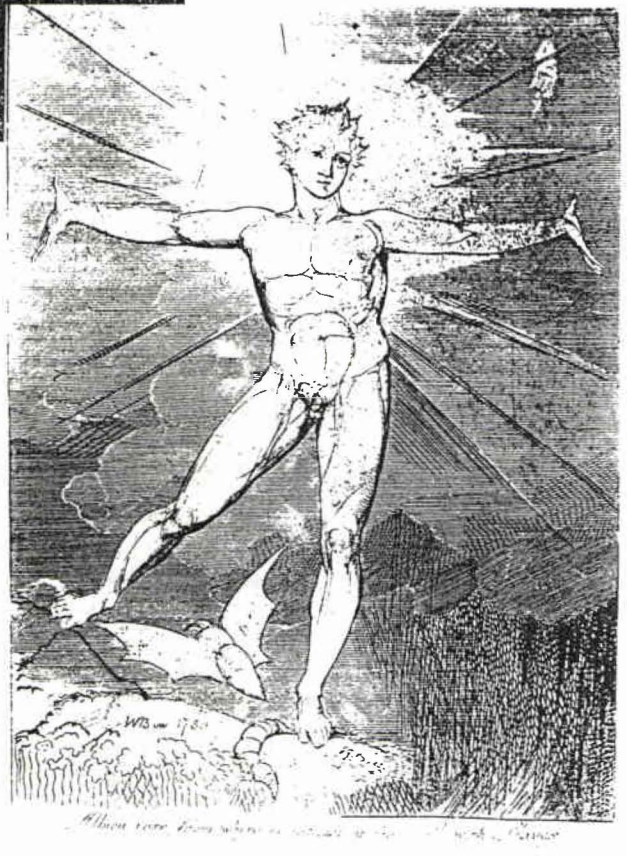
17. *The Night of Peace.*
(Butlin 665)

18. *The Rout of the Rebel Angels.* (Lister 45)



19. *Edward Young's "Night Thoughts": Night IV, page 8.* (Butlin 421)

20. *The Dance of Albion*, [c. 1794]. (Raine *William* 72)



21. *The Dance of Albion*, [second state, c. 1804]. (Essick *Printmaker* 182)

22. *Robert Blake's Sketchbook*, Page 6. (Butlin 1132)

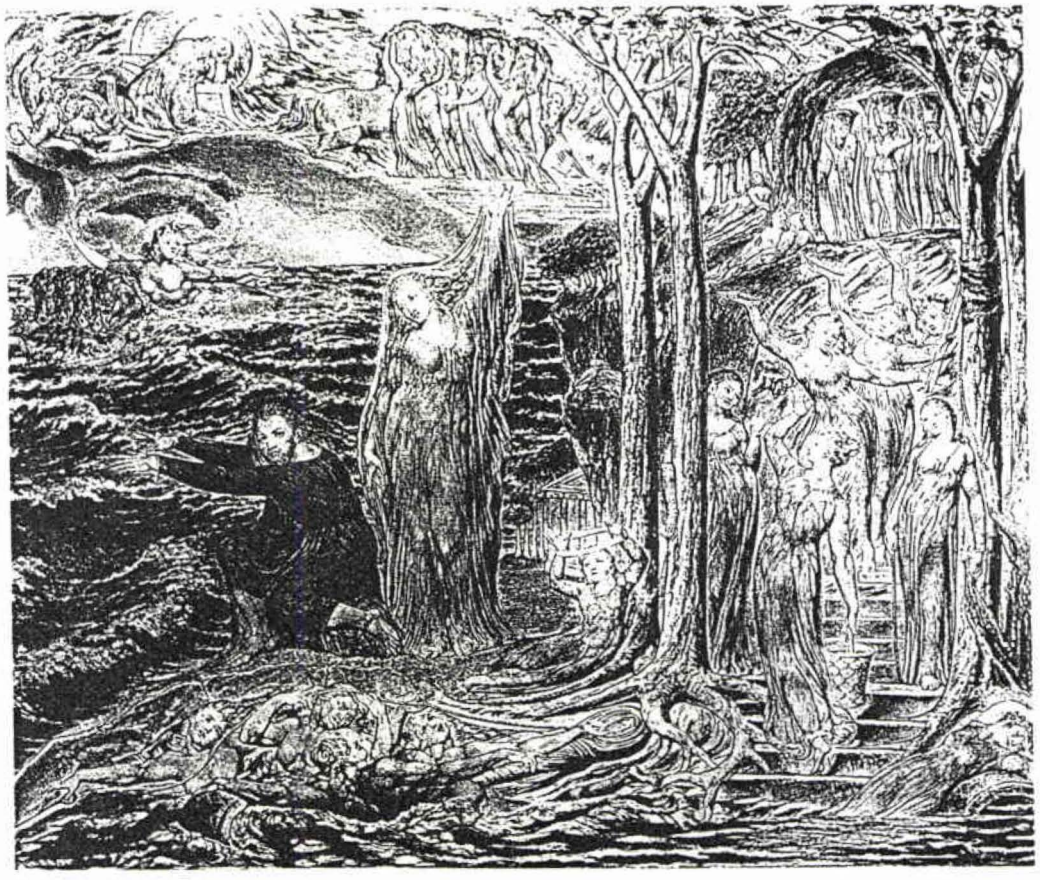
23. *Robert Blake's Sketchbook*, Page 11. (Butlin 1137)

24. *Robert Blake's Sketchbook*, Page 13. (Butlin 1139)

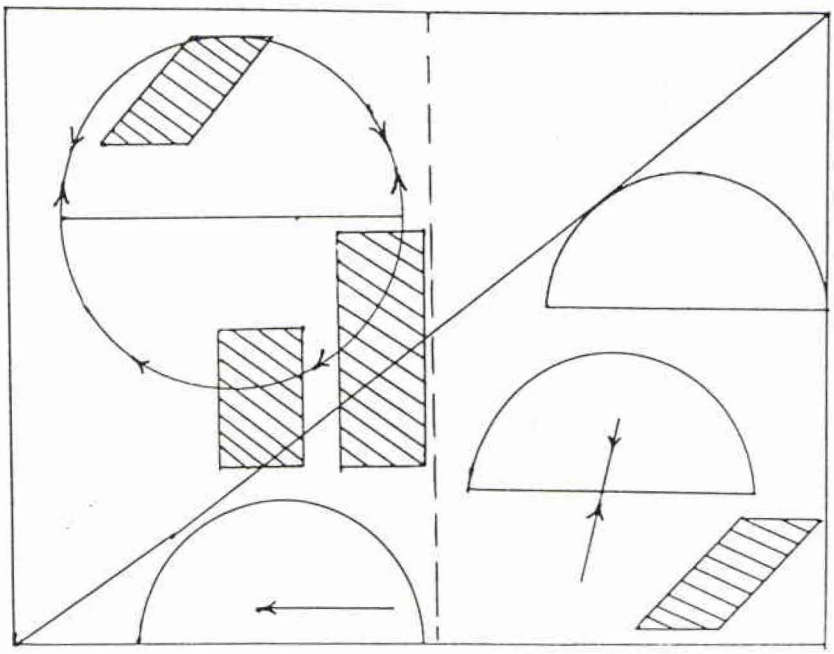
25. *Samuel Presenting Saul to the People.* (Butlin 130)

26. *Possible Sketch for "Jerusalem", Plate 35/39: "Time's Triple Bow".* (Butlin 803)

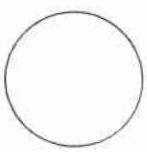
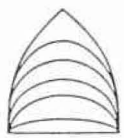
27. *The Holy Family, or Christ in the Lap of Truth.* (Butlin 556)



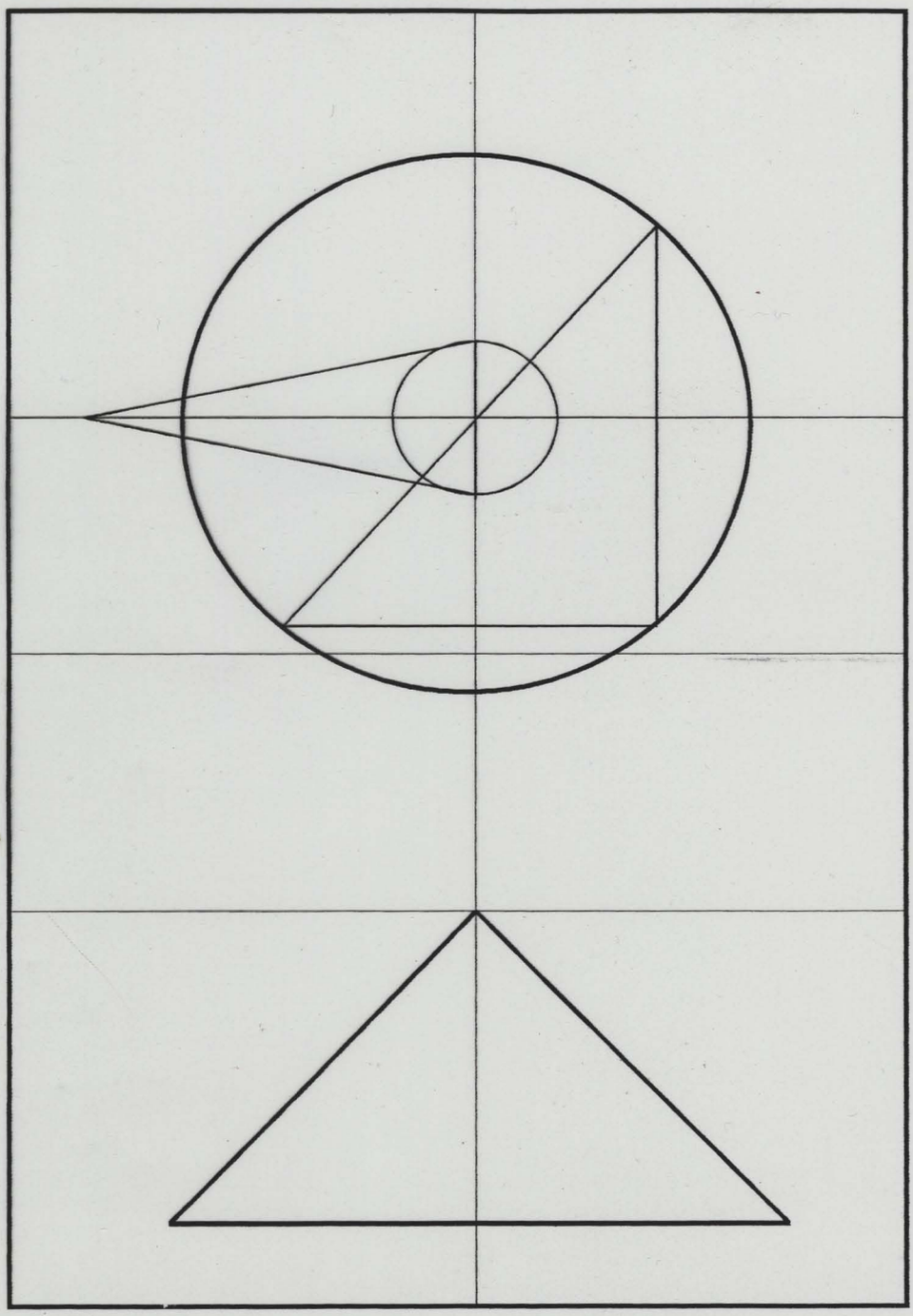
28. *Arlington Court Picture.* (Raine *William* 119)



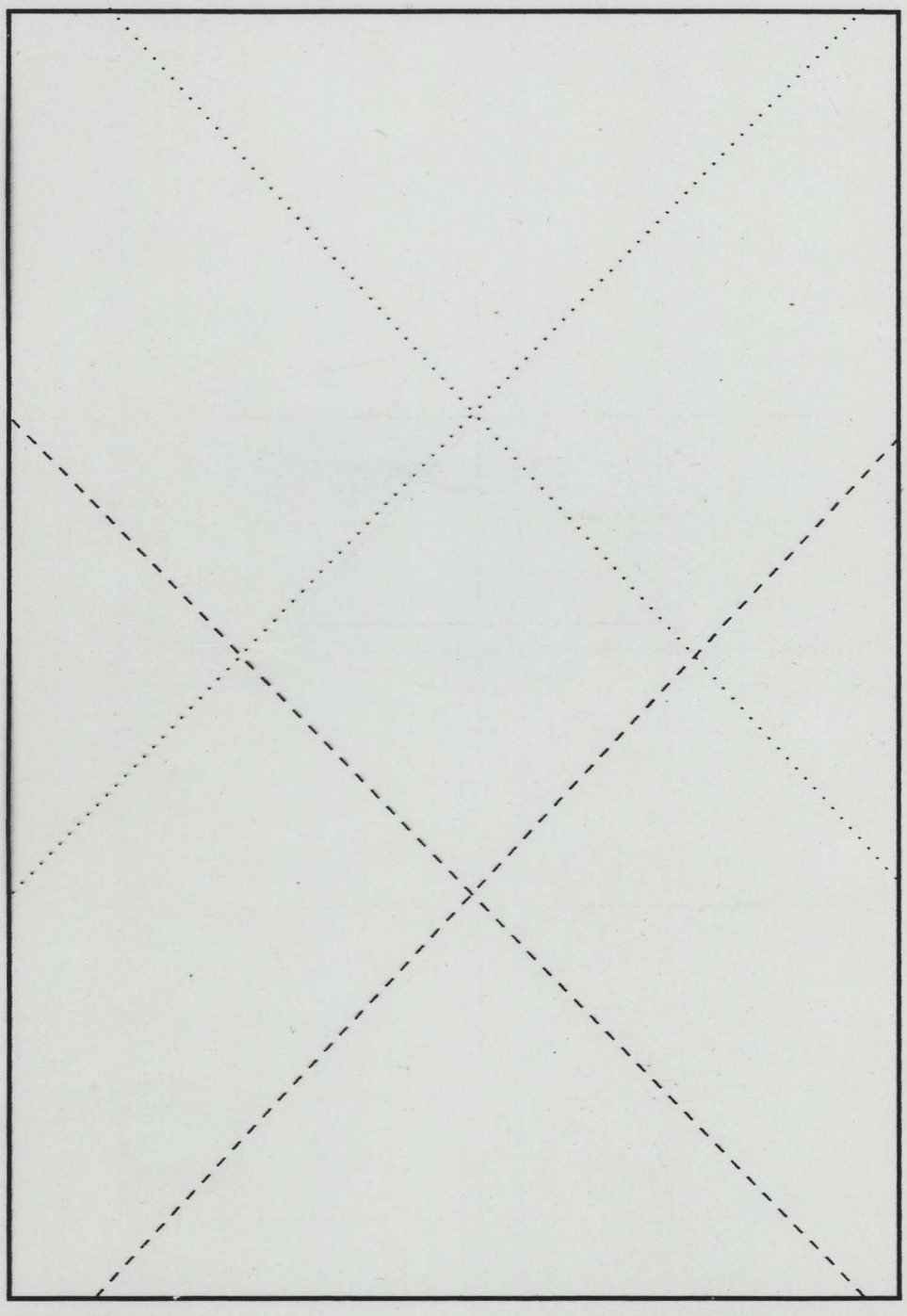
29. Circle and triangle diagram of the *Arlington Court Picture*. (Essick *Visionary* 148)

SENSORY ORGAN	EYE	EAR	TONGUE	NOSE
SCHEMATIC FORM	circle, orb	spiral, vortex	arabesque, S-curve	arch, inverted U
LINEAR VARIATIONS				
REPRESENTATIONAL FORMS	sun, moon, shell, wheel, halo, globe, bubble	whirlwind, whirlpool, coil, scroll, spiral stairway, tendrils, serpent	flame, waves, leaves, vines, serpents	cave, arbor, arch, gate, trilithon, gravestone, stone tablets
HUMAN FIGURES	crouched, in fetal position, or expansive, outstretched limbs as radii	dancing, flying, tossed about, contorted, twisted	dancing, flying, leaping, climbing, or statuesque, static	crouched, supine, reclining

30. Table of schematic forms. (Mitchell I)

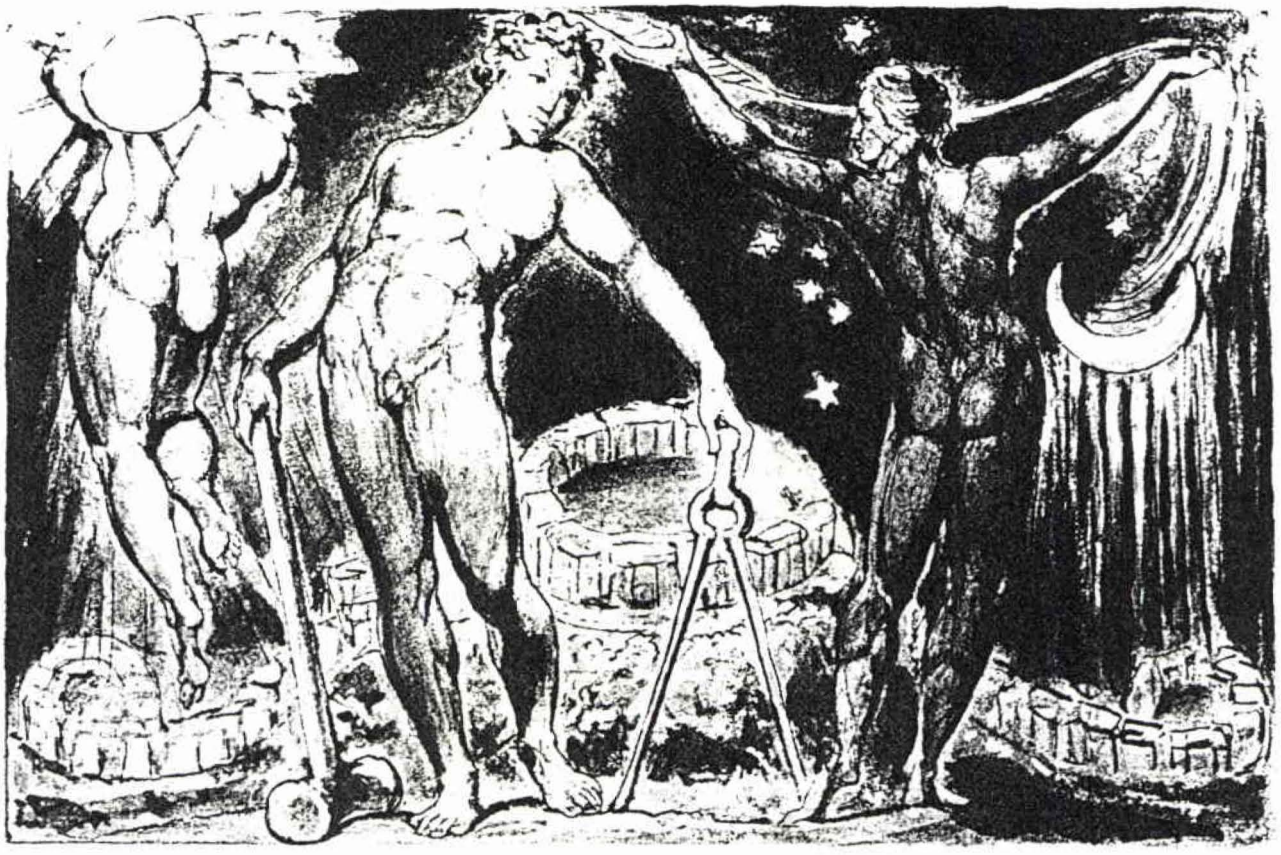


Overlay 1.

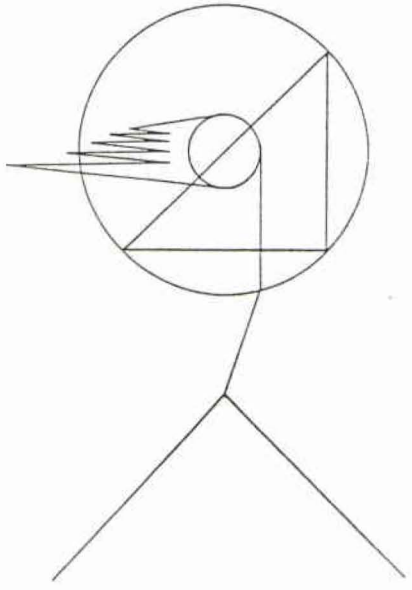


Overlay 2.

31. *The Ancient of Days*

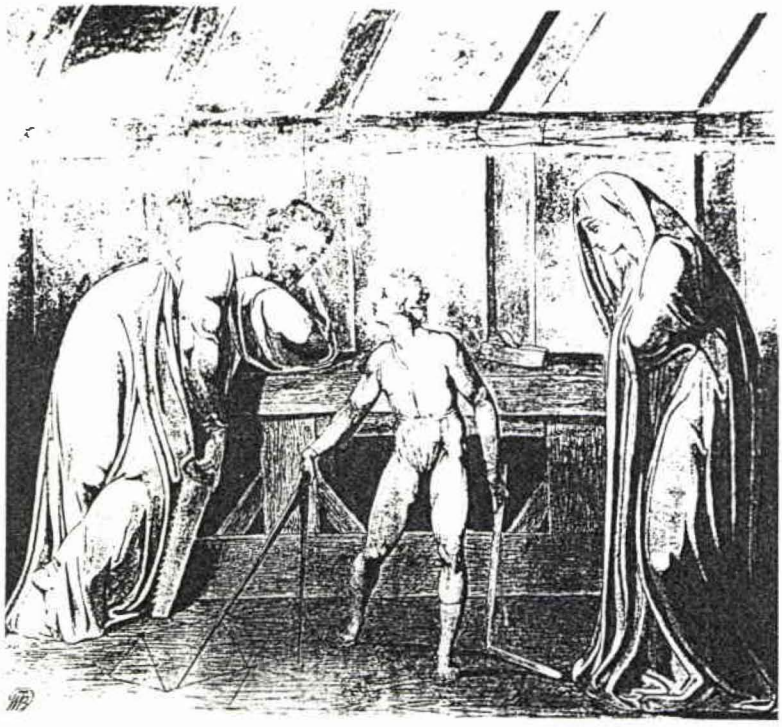


32. *Jerusalem* 100[E]. (Erdman *Illuminated* p.379)



33. Schematic diagram of *The Ancient of Days*. (Crehan 272)

34. *Europe*, copy K. Pl. 11. (Mitchell 26)



35. *Christ in the Carpenter's Shop.* (Butlin 558)