Breakdown and Survival of a Conservation System:

Waswanipi Game Management in Historical Perspective and Stories

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Introduction

This paper develops out of attempts to examine how local game management or conservation systems have to be understood historically, and as local and regional cultural and ecological practices that are linked with national and international economic and political conditions and interventions. Too often the macro-system factors do not enter into analysis. I find myself dissatisfied with this as a comprehensive statement of the interaction. It seems to me that not only do region-wide patterns of outcome require analysis, but we need to be able to distinguish adaptive responses from breakdowns in regional patterns. Much attention has been focused on changes and innovations but how breakdowns occur and what they lead to have been less frequently identified and analysed. Similarly, the application of decision making analysis to macro-level interventions has implicitly emphasized the autonomy of actors, and has been less effectively applied to the analysis of the other side of the autonomy coin, namely constraint and dependency. To develop such an analysis it seems to me essential to identify a conservation system and to examine, where possible, the limits to that system. Such limits are likely to be more restricted and therefore critical for long-term management decision making than for the short-term components of practices. And I would suggest that perceived control of situation or environment necessary for long-term planning will often be the critical area in which macro-level interventions threaten local or regional conservation systems, and lead to their partial or complete breakdown.

The problems and formulations are presented in this paper as arising from a case study of
a sub-arctic hunting community. It is argued that we should study actors’ cultural models and practices in order to discover the conditions or limits at which action is no longer able to attain a given level of conformity to the actors' normative models. Such limits would define the conditions under which a culturally distinctive conservation system could be said to breakdown and to require change, not simply adaptation. Similarly, such conditions would be likely to be associated with an increase in dependency.

In the present case conditions under which actors must abandon certain decisions and practices consistent with their own conservation models are described. These limits are found to be linked to external interventions, and critically, it is not the actual extent of the intervention, but perception of its potential consequences which is sufficient to provoke a breakdown. Actors find themselves in a situation where they are constrained to take decisions and act in ways that violate their cultural decision models. The result is a breakdown of some game management practices and a partial breakdown of the conservation system. The actors find this disturbing and seek new and innovative means of re-establishing conditions where action in conformity with models will again make sense.

The Waswanipi Case Study - Background Summary

This paper grows out of an earlier effort to apply decision analysis to a hunting society in which I analysed the structures of knowledge and of the social organization of decision makers which underlie the contemporary system of wildlife management and conservation practiced by the Waswanipi of northern Quebec. In that analysis, which is briefly summarized here, I show that the goals sought by hunters are, and how the culturally informed system of belief provides a set of objectives. Rephrasing the cultural proverbs and recurrent statements, I define the goals as: 1) maintaining long-term sustainable yields; 2) stabilizing the harvests in the medium term, to the extent possible; while 3) maximizing the short-term efficiency insofar as this is consistent with the two previous objectives. I then showed how these objectives are potentially achievable, according to Cree, through decisions which use available indicators of the trends in game
populations. Data from wildlife management science is used to confirm the value of these indicators (Feit 1973, 1978).

The dual problems of gaining and organizing the information required, and of implementing the resultant decision outcomes, were then shown to be resolved within the structure of a system of hunting territories. Socially located individual "owners" have long-term experience of the trends in critical game signs by returning frequently to well defined territories over extended periods of time. And, those "owners" have the socially recognized and spiritually sanctioned right and obligation to regulate the actual harvests of the key game species taken by other community members in the light of the knowledge they control.

It is argued that the owners are able to manage and conserve the key wildlife populations which they hunt for food and for fur. Quantitative data are used to demonstrate that the system does in fact work so hunters can attain diverse objectives. Data on game population dynamics over a ten-year period along with data on harvests demonstrate that regional harvests are below sustainable yields. Game populations are also maintained at levels that reduce the likelihood of perturbation.

Labour efficiency, measured from diaries, is shown to be maximized only insofar as it is compatible with the above objectives. This hierarchy of values is consistent with proverbial statements and with an analysis of Waswanipi criteria of prestige and personal achievement. This analysis provides a decision making formalization of the Algonquian family hunting territory system.

The present study extends this analysis historically, by indicating how the hunting territory owners have responded to changing conditions during the last eighty years. The possible limits to the system previously described are explored.

Six distinct kinds of changes are considered in the larger Cree case study, only part of which is analysed in this presentation: decreases in the quantity and kind of wildlife resources; increases in human populations; shortages of cash resulting from increasing demand for cash for goods and services in the face of fluctuating market and welfare conditions; an abundance of
cash relative to preceding conditions; changes in the cultural system; and increasing intervention into the region by commercial and industrial resource users or state policies and agents.

Over the longer-term study, periodic declines in game populations led to careful protection of remaining game resources, some use of less efficiently harvestable resources, and enhanced authority of 'owner' decision-makers. These are all responses consistent with the decision model. Increasing cash needs, in periods of reduced availability of cash, led to reductions in the intensity of hunting, and not to increasing use of hunting to try to produce short-term increases in cash production; instead alternative sources of cash were developed where possible. Long-term increases in the population of the community have led to a pattern of reductions in participation in intensive hunting among sectors of the population, rather than to increasing harvests for the short-run, or to increased harvesting of significantly less efficiently harvestable resources, and to widespread use of purchased foods. A sudden increase in cash resources led to a very short-term increase in harvests beyond sustainable yields, and to a rapid re-emphasis on the authority of 'owners' and a reduction of harvests to previous levels. A perceived increase in individual power, led to a decentralization of 'ownership' but a continuing regulation of game harvests. All these changes were consistent with the decision model (see Feit 1982a, 1982b).

This paper focusses on the intensive competition for wildlife resources by non-Natives which led to an earlier partial breakdown of the management system and over-exploitation of resources. This in turn led to a seeking of political resolution by restoring the conditions suitable for management. Thus, when the primary long-term management objectives were perceived as unachievable, then these goals were abandoned in practice in favour of short-term maximization, while keeping open other means for re-establishing conditions under which the long-term management objectives could be met.

Waswanipi Conservation – The Breakdown of the 1930s

There are limited but clear ethno-historical data that the basic components of the
conservation models contemporary Waswanipi hunters utilize have been in use since at least the turn of the century. The contemporary hunting territory system which is a key component of the model has existed since before that, and the records permit tracing back the inheritance of some 80 percent of the present territories to those which existed in 1915. The hunting territory system can be traced back at least another 100 years at Waswanipi, but the location of specific territories cannot be traced over this period, nor does the existence of a hunting territory system necessarily indicate a continuity of basic components of the decision models found today.

What we can say then is that the decision models have existed and have been reproduced by Waswanipi over at least the last eighty years, but not without change. This process has also not been a smooth one, for this period has been characterized by increasing penetration by the nation state and by international and national economic interests into the region. Here I will briefly discuss the consequences of external conditions on the Waswanipi, and I will consider the implications of Waswanipi responses for conservation of game populations.

The main period I want to discuss occurred in the late 1920s and early 1930s when direct competition for wildlife resources occurred in the region. Non-native fur trappers started entering the region during the 1920s, in response to high fur prices in booming world markets. Some trappers came individually, some were organized as teams and sent into these still remote parts of northern Quebec by independent fur traders. In the Waswanipi region and further north where no railways or roads had yet penetrated, the intrusion was limited to areas accessible from a limited number of rivers and trails, and to a few organized groups that flew in by airplane to more isolated sections. Further south, in more accessible areas, the penetration became a flood, and game animals were quickly exterminated by the non-Native trappers. This did not happen in the Waswanipi region, nevertheless, the Waswanipi were profoundly concerned and affected.

In 1927 the young resident Anglican Missionary, Rev. Harry G. Cartledge, wrote “at the request” of the chief, councillors and Indians at Waswanipi to the Federal Department of Indian Affairs at Ottawa to bring to their notice the “serious situation which is arising” in the region as a result of the trappers' intrusions, and to request prompt attention. He requested that the
government take action “immediately to safeguard their only means of earning a living,” and
their manner of hunting which “conserved fur-bearing animals.” The petition did not state what
response was requested, but the author implied a response when he cited as a reason for the
recent increase in non-Native trappers was the passage of laws in the neighbouring Province of
Ontario which forbid the trapping of beaver by non-Natives in that province. This petition is the
first item in the Indian Affairs Department files under the entry “Waswanipi.” His description of
the situation read:

55 Chesterfield Avenue
Montreal, P.Q.
Oct. 29 - 1927

D.C. Scott, Esq.,
Department of Indian Affairs,
Ottawa, Ont.

Dear Sir:

At the request of the Chief, the councillors, and the Indians living at Waswanipi in
Northern Quebec I desire to bring to your notice a serious situation which is arising in the
regions of Waswanipi and Mistassini owing to the advent of numbers of white trappers.
The Indians are growing anxious about this matter, and before I left Waswanipi last
month, they urged to draw this matter to the attention of the Department.

Until very recently the only hunters in these territories were Indians, and they, realizing
that hunting was their only means of livelihood, hunted diligently but intelligently. By
this I mean, each man divided his lands into sections and hunted on the sections alternate
winters, and in this manner conserved the fur-bearing animals because they realized that
they had to return to the same territory another year. The result has been that these bands
of Indians are self-supporting and are an asset to the Dominion. In recent years the
“Quebec Fisheries Ltd.” of Senneterre, P.Q. have had large gangs of men working along
the Nottaway river and Lake Mattagami, and these men engage in trapping, more or less,
and have practically killed most of the fur-bearing animals along these waterways.
Besides this company's employees there are many other white men, some whom I known
to be citizens of the U.S.A. who are encroaching on the lands of the Waswanipi Indians.
The chief said that last winter there were ten white trappers hunting on his territory and
that wherever they go they kill everything, especially the beaver, therefore leaving
nothing to breed for future winters hunting. The chief also says these men use a great deal
of poison and that it is unsafe to allow his dogs to run loose any longer. The white men,
having killed all fur-bearing animals in one region always move to another Indian's
hunting land the following year, while the unfortunate Indian, still clinging to his old
custom, does not encroach on his neighbour's territory but returns to his own land. This matter is really very serious and needs prompt attention.

I could also remind you that within very recent times the Provincial Government of Ontario passed laws which forbid white men to trap beaver and otter in that province, the result has been, and I am now speaking from my own personal knowledge, that scores of these white hunters have moved from Ontario and are now trapping in the trapping in the territory of the Indians north of the Can. Nat. Ry in the Province of Quebec.

As I have said before, the people of Waswanipi and Mistassini are virile, self supporting and self respecting bands of Indians, and an asset to the country, but I am afraid that unless steps are taken immediately to safeguard their only means of earning their living, which is hunting, that they will have to be supported entirely by the Government. Commending this matter to the careful attention of the Department of Indian Affairs,

I beg to remain
Your obedient servant
Harry G. Cartledge
(Missionary)¹

In response to the economically motivated external intrusion, the first Waswanipi action was thus to seek assistance from the political authorities who could regulate the influx. It was an innovative and perceptive response, although almost certainly suggested and implemented by the missionary and/or Hudson's Bay Company fur trader.

Whether or not the Waswanipi ever received a reply to this petition is unclear but it is clear that in 1928 the government of the Province of Quebec legally closed all trapping of beaver, except by Indians, throughout the province in response to urgings from people living to the south of Waswanipi. This might have been an effective response had the governments had the policing power to enforce it in the isolated areas, but they could not. As a result, there is clear evidence of illegal trapping continuing at Waswanipi in the decade from 1928 to 1937. However, the stock market crash of 1929, and the institution of a beaver reserve system during the 1930s and 1940s, slowly limited the scale of the illegal trapping. As a consequence, the basic problem the Waswanipi encountered with the intrusions were initially only moderated, and not quickly resolved.

The next response of the Waswanipi is clear in the Hudson's Bay Company fur pelt sales
records from Waswanipi. Initial declines in sales appeared in 1926, and a clear downward trend in sales figures was established in 1928, when total sales dropped below any level recorded in the previous fifty years. From 1928 to 1938 a relatively consistent downward trend occurs in the number of pelts sold so that from sales of 600 to 700 pelts per year, none were sold to the Hudson's Bay Company in 1938, with the largest drops in years from 1933-35.

Table 1 - Purchases of Beaver, Marten, Lynx, Otter and Mink Pelts by the Hudson's Bay Company Post at Waswanipi, All Available Years 1885 to 1945.

<table>
<thead>
<tr>
<th>Year</th>
<th>Beaver</th>
<th>Marten</th>
<th>Lynx</th>
<th>Otter</th>
<th>Mink</th>
</tr>
</thead>
<tbody>
<tr>
<td>1886</td>
<td>652</td>
<td>387</td>
<td>194</td>
<td>66</td>
<td>103</td>
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<tr>
<td>1887</td>
<td>456</td>
<td>510</td>
<td>225</td>
<td>41</td>
<td>104</td>
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<tr>
<td>1888</td>
<td>820</td>
<td>519</td>
<td>354</td>
<td>67</td>
<td>36</td>
</tr>
<tr>
<td>1889</td>
<td>442</td>
<td>251</td>
<td>308</td>
<td>61</td>
<td>32</td>
</tr>
<tr>
<td>1890</td>
<td>536</td>
<td>225</td>
<td>156</td>
<td>68</td>
<td>29</td>
</tr>
<tr>
<td>1891</td>
<td>682</td>
<td>247</td>
<td>287</td>
<td>45</td>
<td>73</td>
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<tr>
<td>1892</td>
<td>685</td>
<td>358</td>
<td>111</td>
<td>29</td>
<td>13</td>
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<tr>
<td>1925</td>
<td>703</td>
<td>220</td>
<td>207</td>
<td>39</td>
<td>158</td>
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<tr>
<td>1926</td>
<td>764</td>
<td>232</td>
<td>142</td>
<td>28</td>
<td>208</td>
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<tr>
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<td>479</td>
<td>371</td>
<td>57</td>
<td>52</td>
<td>69</td>
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<tr>
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<td>241</td>
<td>32</td>
<td>32</td>
<td>31</td>
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<td>1941</td>
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<td>175</td>
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<tr>
<td>1942</td>
<td>108</td>
<td>28</td>
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<td>48</td>
<td>356</td>
</tr>
<tr>
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<td>70</td>
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<td>48</td>
<td>336</td>
</tr>
<tr>
<td>1945</td>
<td>79</td>
<td>21</td>
<td>58</td>
<td>46</td>
<td>95</td>
</tr>
</tbody>
</table>

Source: Hudson’s Bay Company, personal communication.

There are five points about this decline: 1) it was continuous and steady over nearly a
decade; 2) it occurred during a period when the intrusions by non-Native trappers were limited in scale, but were continuing; 3) it continued during a period of drastically declining fur prices; and 4) it occurred during a period when moose populations were increasing and there was no pattern of shortages of food supplies; 5) the Waswanipi say there was no widespread death due to diseases among the beaver.

The Waswanipi of today are clear that it was they who killed off the beaver. They say "Killed beaver until not too many. People hunted every year in the same place. Killed small ones too." "Keep killing small beaver, were not any young beaver."

Not all people provide a uniform answer to questions about why they decimated the beaver, but some allude to the competition from non-Native trappers and the lack of effective initial government response during the period. In the words of one hunter, they "just killed all they could get, used dogs, cleaned out a whole pond... the beaver had no chance to grow -- too many trappers at that time... because of money, no help from government..."

In short then, the Waswanipi, faced by a perceived threat to their ability to effectively continue to conserve beaver over the long-term, slowly and systematically virtually eliminated beaver populations in their own lands, in conflict with their own common conservation practices. Given the prospect that they would soon no longer be able to achieve their long-term goals, and I stress that it was the perception that beaver would eventually be trapped out by non-Natives, the Waswanipi harvested over several years animals that would be otherwise lost to them.

It is important to note that the Waswanipi did not go out and kill off all the beaver in two or three years, rather there was a slow decline in sales. This suggests that as in the course of hunting they experienced declines in beaver populations the Waswanipi did not reduce harvests or rotate hunting areas to let the populations recover; they just kept hunting at a steady pace, getting less and less, and slowly driving the populations of beaver down. This is in effect what people say today, they just kept hunting the areas year after year, eventually taking all the young beaver.

I note this because I want to suggest that the response was a reasoned one. It is important
to note however that the decline in the beaver pelt sales was actually a combination of two
trends. The one just described reduced beaver until there were “not too many” left. But in 1936,
the Waswanipi chose as a group not to hunt any more beaver in order to help them recover, see
below. Thus, the final fall in sales to zero in 1938 resulted from a reversal of the over-trapping
and a self-imposed ban.

That the first trend was a reasoned one, even though there is no written record of it, is
implied not only by the trends in beaver declines, but in the harvests of other game. Declines
occurred in the two fur-bearing species which it is possible to manage over the long-term, beaver
and marten, and declines were not reported for other fur-bearing species. Nor did declines occur
in game not hunted by non-Natives. Lynx and mink harvest totals follow relatively normal
population variations, reaching peaks in 1936 and 1935 respectively while otter harvests remain
essentially stable. Qualitative data on moose populations, which are also subject to effective
management, indicate they were increasing during the 1930's, due presumably to improving
conditions in the young forests, but also according to Cree stories of the period due to careful
hunting by the Waswanipi.

The striking feature is therefore that the trapping out was restricted and not a general
breakdown of conservation practices, it was limited specifically to those species whose
populations can, under normal conditions, be effectively managed by hunters, but where such
long-term management was now threatened by external trappers. There was no general
abandonment of the conservation models, which continued to be applied to moose, for example.

The trapping out of beaver and marten did, however, constitute a new and significant type
of widespread discrepancy between action and belief, and a serious abandonment of the goals of
conservation for those species. I will call this change in performance a partial breakdown in the
conservation system. When the trapping out was nearly complete, in 1936, the Waswanipi took
two initiatives. First, they agreed among themselves not to hunt the beaver and to protect those
that we left for at least three years to begin to let the populations recover from the colonies of
beaver which were still inhabited. Secondly, they approached the government again and asked to
be given the "authority to keep any outsiders off the said lands which we are determin (sic) to
protect as far as the Beavers are concerned, what we mean by outsiders, are Indians from other
Posts." The latter comment implies that by this date non-Native trappers were no longer a serious
threat. The typescript memo, signed by the chief and council, was forwarded to Ottawa, with the
aid of the Hudson's Bay Company manager. It said in part:

Our idea is that the season for Beaver should be closed altogether, as in these days there
are practically no Beaver on our lands, as the total number of Beaver caught by the
Waswanipi Band last year, only amounted to 38, which is not enough to keep one family
of Indians for one winter, so we think it would be best if the Beaver hunting was
forbidden altogether, at least for three years, in fact we of the Waswanipi Band, have
decided to protect the Beaver on our lands, as far as we can, and as we called a meeting
among the Waswanipi Indians to this effect all the Indians were agreeable, so all we ask
is if the Department will honor our move, and give us authority to keep any outsiders off
the said lands which we are determin (sic) to protect as far as the Beavers are concerned,
what we mean by outsiders, are Indians from other Posts." (Typescript on memo paper,
signed by Chief Joseph Saganash, Counselor Diom Blacksmith, and Counselor Samuel
Gull).²

The Waswanipi, by these two actions, thereby reaffirmed their desire to re-establish the
conditions under which they could again conserve the beaver populations. And by stopping
beaver trapping themselves they took what action was available to them.

The governments responded to the general conditions in northern Quebec at this period
by prohibiting all killing of beaver in the province in 1937. This effectively limited any residual
illegal trapping by poachers because they could not now easily sell beaver pelts because all
beaver hunting was banned, and pelts had to be tagged to be possessed and sold legally.

The Quebec and federal governments also then started in 1938 to systematically extend
the beaver reserve system, which had been begun in 1932 at an adjacent Cree community. The
beaver reserves legally recognized exclusive control of Indian hunting territories by the Cree "owners", now called "tallymen" and recognized by the government as sovereign. This was combined with programs to have owners report their observations of the growth of beaver colonies, and to relocate beaver in order to seed areas which had been completely depleted.

Thus, the conditions for re-establishment of beaver populations and the effective application of Cree conservation models were re-established, and after another decade the Waswanipi were again able to systematically hunt beaver. The Waswanipi view this as a period in which they successfully took innovative action to control the effects of economic intrusions into their region, and in which political authorities cooperated with them to meet Waswanipi objectives.

**Survival of the Waswanipi Conservation System -- An Assessment of Strengths and Weaknesses**

The example of the events of the 1930s and 40s demonstrates a fundamental fragility of the Waswanipi system, namely that the ability to regulate access to and use of wildlife resources by hunting territory owners does not extend to non-Natives or to Natives from outside the region, and the system is therefore exposed to competitive intervention unless this is regulated by or with state authority. On the other hand, events during the 1950s also revealed the inherent strengths of the system.

In the 1950s, the government began to legislate and decree the size of the beaver harvests that could be taken on each hunting territory. This exposed the basic contradiction which had been implicit since the Waswanipi invited government help. As the 1936 memo stated, the Cree sought the help of government authority so that the Waswanipi themselves could regulate outside trappers. And in the period when there were no regular government policing mechanisms in place, the Cree did effectively exercise that authority, although with the assistance of occasional RCMP and Indian Agent intervention. Using the authority implied by the legal recognition they knew the hunting territory owners had received from the government, which made them tallymen, the owners enhanced their social authority and effectiveness, and effectively continued
to steward their territories.

However, the government perceived its intervention as an assertion of its ultimate legal authority and responsibility for land, resources and wildlife. And while initially the few bureaucrats who implemented the legislation understood they were complementing and using a Cree system of game management, as the bureaucracy grew and became more distant (not geographically but by virtue of its size and the conviction it was autonomous from local conditions) administrators came to believe the near regional extinction of beaver in the 1930s proved the need for state intervention in the absence of an effective local conservation system. The governments therefore increasingly became direct external interveners in the regulation of access to and use of wildlife resources in the region.

The Waswanipi hunters responded to state intervention by appearing to comply with its formalized procedures for monitoring populations, registering hunting territories, allocating hunters among territories, and establishing harvest quotas; but ignoring the government regulations in actual decision making and hunting practice, wherever it conflicted with their own decisions. They continued, however, to report compliance to the administrators, so as not to lose the protection afforded by the government system from intrusions by competing trappers.

This new adaptive strategy was based on an essential strength of the Cree system; namely its decentralized form of decision-making. Both the information necessary to make decisions, and the exercise of authority to assure implementation of decisions, required that decision makers be widely dispersed over the land and among the hunting camps. The hunting territory owners did this of course, but the governments’ efforts to centralize decision making, to gather the information needed, and then implement, monitor and enforce decisions through a small centralized, isolated staff were ineffective. The government administrators were in fact dependent on the dispersed Waswanipi decision makers for their information, implementation and monitoring, and they lacked definitive means for effective enforcement.

These events did however also change the Waswanipi hunting territory system. For one thing, government suggested and implemented a division of the larger hunting territories among
father and sons. This was consistent with the growing autonomy of Cree youthful hunters, and was widely done by Cree. Secondly, the government grouped hunting territory boundaries by community into adjacent beaver reserves for administrative purposes, and it made these boundaries conform to provincial boundaries and boundaries claimed by adjacent communities. The beaver reserve grouping created a specific territorially bounded “community” area of interest in traplines, and it made transfers of territories among hunters from different communities a problem. The Waswanipi were little affected by the provincial boundaries, but the southern limit of their beaver reserve did not acknowledge Waswanipi interests in hunting territories south of the area of continuous Waswanipi traplines. A third area of change occurred because the beaver reserves afforded protection against outside trapping, but not hunting. The Waswanipi therefore came to talk to outsiders about territories as units for control of beaver trapping and not all game, even though they continued to use hunting territories to conserve moose and other game. This led to various tensions and contradictions, which they continued to deal with over the next decades.

In contrast then to the 1930s and 1940s, when an inherent fragility of the Waswanipi system, its inability to regulate people outside Cree society was revealed, the 1950s and 1960s revealed an inherent strength, the ability of the Waswanipi decision-makers to retain extensive autonomy and authority vis-a-vis a centralized authority which could not either monitor the information needed for their decisions, nor enforce those decisions.

This understanding of strengths and weaknesses informed the threats the Cree perceived when the government itself became a direct and effective intervener in the region with the announcement of the James Bay Hydro-electric Scheme in the 1970s. And, then it was the basic strengths of the Cree decision making system that guided their efforts to resolve the conflicts with the governments and to decrease the weaknesses of the system through the provisions of the James Bay and Northern Quebec Agreement. But these events are beyond the scope of the present paper (see Feit 1980).

Conclusions
At a pragmatic level, a key point of this analysis has been that a perceived lack of control and predictability of future conditions may be an important result of outside intervention, and under such constraint no effective conformity between long-term goals and action may be possible. Perceived loss of local control is therefore a critical cause of breakdown, and it can effectively set the limit of conservation. I expect this may turn out to be a widespread and critical limit for other locales experiencing national and international interventions in developed nation states.

I would argue that we need studies of conservation practices which examine culturally encoded decision models, where these can be demonstrated to exist. We cannot presume a conformity or congruence between individual action and models, but where general or cumulative action patterns do generally conform to and achieve the valued goals coded in such models, we need to examine how this occurs. Then, by examining the patterns and models over time, we may also be able to determine how as both action patterns and models change, discrepancies between belief and action may initiate directed changes in one, the other or both.

When the analysis of conservation includes the study of national and international linkages to local decision making, and a historical analysis of the ongoing interaction, then I would argue that we have an adequate framework for analysis. Only if analysis is framed in such a way that the issue of changes in the extent of local control are analysed can the results be useful.

We need studies that identify macro-system interventions, but we need to find ways to analyse how local societies enmeshed in economic linkages or encapsulated in nation states become dependent or retain autonomy. It is important to formulate decision making analysis so that constraints which make valued goals appear unattainable, and which cause a perceived loss of local control, are clear, as well as the responses to such conditions. That is, we need to convincingly analyse the breakdowns of conservation, but also their extent, and their consequences, for breakdowns may lead to survival or revival under specific conditions.
Acknowledgements:


References by Harvey A. Feit Cited


Endnotes:


2 Public Archives of Canada, RG 10, Vol. 6750, File 420-10-4, reel C8106, Chief Saganash to Department of Indian Affairs, 3 August, 1936.