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InsituTime: Touring Alberta's Palaeoscape in the Drumheller Badlands

by

David J. Wood

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ABSTRACT

The Badlands landscape of Drumheller, Alberta is renowned nationally and internationally as a place of abundant fossil resources. Accordingly, Alberta's Badlands host the meeting of Earth science and popular culture in the conduct of a growing palaeotourism industry. The thesis is oriented by attention to the paths tourist follow and create as their pursuit of the late-Cretaceous past draws them into an Albertan palaeoscape. By paying ethnographic attention to the structuration of this movement, we can see how palaeontologists' concern with epistemology (the *insitu* fossil) facilitates the industrialization (tourism) of the Badlands landscape (fossil resources). In turn, I am able to suggest that the emergence of the fossiliferous landscape form is related to the emergence and development of modernity. Set in a relevant historical and regional context, I suggest Badlands palaeotourism is a cultural landscape process that draws upon and elaborates a historical "political economy of the imagination."

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DEDICATION

To the memory of Craig Douglas Powell
1969-1996

"It's a *truck*; it can go anywhere... "

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Chapter One: Introduction

This thesis is a study of how people cultivate a sense of locality in order to transcend their situation in time and space. The study is set within a recently industrialized tourism phenomenon occurring in the Badlands of Drumheller Alberta. This locality is ideal for such a project because in its self-description, Badlands palaeotourism consists in the cultivation of a sense of locality - landscape interpretation - as a way of having an extraordinary encounter with another place. In the case of the Alberta Badlands, this other place is generally referred to as the late-Cretaceous.

Normally, this manifestation of the "deep past" (Albritton 1980; Rudwick 1972) is considered the exclusive terrain of natural scientists and their concern with epistemology. Yet what distinguishes Cretaceous-oriented activity here, in the Badlands of Alberta, is that it is the object of both popular and specialist practice. Having worked as an interpreter in this setting since the summer of 1991, I have had the opportunity to ask approximately 20 000 tourists why they visit the Drumheller Badlands. Over the years, their answers have remained remarkably stable: "Why, because fossils are here."

In this thesis, I argue that tourism in the Drumheller Badlands is not simply about the finding or showing of fossils, but also how a 'political economy of the imagination' figures in the cultural construction of the Badlands landscape. In offering this thesis, that palaeotourism can be treated as a kind of landscape process, I am placing this special meeting of Earth

science and tourism on a footing with other studies of socially constructed landscape processes (e.g. Durkheim 1965a [1915]; Layton 1995; Turner 1989; Morphy 1995) .

In making an attempt to place palaeotourism on an analytic par with other landscape phenomenon, such as the Aboriginal Dreamtime, I face the classic difficulty of conducting anthropological or cultural analyses of modernity. Given the scientific nature of the object this thesis addresses (palaeontology), this problem is particularly difficult to overcome. Throughout the history of our discourse upon the emergence of modernity out of an, "other" background, we have characterized this transition as a movement (for better or worse) from culture-bound perceptions of nature to perceptions ministered through positive science (e.g. Durkheim 1978b). Since the discipline of palaeontology has been at the core of this narrative transition, it would seem my cultural approach to the subject is irrelevant.

It is true that Badlands palaeotourism does have a basis in science. Yet as a popular phenomenon it does engage a collective imagination. Although we imagine the Badlands tourism industry to be contained within a particular place (the Badlands) and exercised through particular agencies within that place (tourism operators), it is possible to demonstrate that palaeotourism is not localized in a rigid manner, nor can we honestly limit its development to a particular set of agencies.

Accordingly, this thesis is presented as a series of analyses, each

focussing upon a particular interpretive slice - or project - relevant to the contemporary tourism industry. In chapter one, I concentrate on the recent emergence of development conflict in the Alberta Badlands. Through a discussion of this conflict, I am able to demonstrate a relationship between the viability of Badlands tourism and the political economy of the Canadian landscape.

In chapter two I turn my attention to the social history of the Badlands to develop a sensitivity to the historical bases of the modern Badlands region. I organize this exploration around the figure of J.B. Tyrrell and conclude the chapter with a relevant definition of structure. In chapter three I describe the contribution of these historical structures to the emergence of a regional discourse on place. I suggest the recent proliferation of Badlands tourism venues throughout the Badlands region is a partial outgrowth of this local discourse.

With this regional context established I move on to chapter four where I describe tourist interaction with the Badlands landscape as it develops in relation to the tourist path. In chapter five I use these observations to sustain an analysis of how tourism interpreters harness a range of agendas in the service of a guided hike in the Badlands. In chapter six I integrate these interpretive slices through a discussion of the palaeoscape and the significance of "being insitu."

As a way of organizing the relations between these various moments, I

have narrated the thesis from the vantage afforded by the most concrete paths that run through them. This means I maintain attention to how the navigational practices of tourists (e.g. highway travel, hiking practice, locating fossils), either distinguish, recall or elaborate the range of themes I have raised in this introduction. Movement, then, is the device that integrates this work. In palaeotourism, highways blend into paths. These paths, in turn, blend into the Badlands landscape.

If from the vantage of the highway we can observe Badlands tourism in either its political or economic dimension, from the vantage of the tourist path we can observe the same phenomenon from the perspective of a family engaged in the process of biography formation. At a broad level what is being integrated is the relationship between political economy and the imagination. In palaeotourism, practical technologies of spatial navigation become useful for the popular navigation of the late Cretaceous.

Locating Past: The Alberta Badlands

To travel upon the Prairies of Southern Alberta is to encounter horizontality. People who undertake this journey often remark on the “emptiness” of this relatively flat landscape. Against this context, the Alberta Badlands are easily located. To approach the valley edge is to have the seamless Prairie suddenly “open up,” exposing a substrate of soft sedimentary rock, steep coulees and desert scrub.

This transition, from Prairie to Badlands, hinges on a marked shift in

landscape. From the horizontal “emptiness” of the surrounding Prairie to the verticality of Badlands proper, the regional landscape exists in a state of contradiction (Figure 1). In light of this contrast, the Badlands are talked about as being a sort of container, an object within which special kinds of things can be and are located. Navigation of this transition is indexed by a shift in migrant lexicon. Whereas the Prairies begets “There’s nothing out here...,” the Badlands inspire: “This place is full of fossils!” With these contrary dispositions towards landscape, expectations vary. Badlands fullness predicates a tangible past.

While contemporary tourists share the feature of being migrants with the tens of thousands of miners, farmers and ranchers who poured into the region earlier this century, they contrast on the point that one group came to live, work and settle while the other comes to visit, engage in “leisure pursuits” and leave. In light of this contrast, contemporary journeying - tourist activity - is a testament to “other” passages. The collapse of a monolithic industrial economy based on coal extraction, and the passing of the dinosaurs; each moment exists as a significant object of local discourse via tourism practice.

In this relationship - between present tourism activity and the background extinctions of dinosaurs and coal mining - the immediacy of “past” is sustained, re/produced and contained within the valley walls. Indeed, if the metaphor of containment is taken seriously, it is this temporal

quality which is at once emphasised in and most clearly a consequence of local tourism. "Come Touch the Past," a road sign proclaims en route to the Royal Tyrrell Museum of Palaeontology, a message which is echoed in various discourses, practices and forms throughout the region. Apparently the past is tangible here, and the promise of an encounter with this contradiction underwrites the journey behind its location. In these terms, the Badlands function as a sort of "inverted outcropping," a place where things can be realized, touched and located that are not accessible in other contexts.

In relation to a generalized quality, that of "past," tourist activity in the Badlands expresses a heightened concern with the materiality of time. The qualities that distinguish the Badlands as a tourism destination are located in landscape features which for natural reasons (e.g. deglaciation), are present in different ways in other contexts. In a sense tourism is about how groups of people address this material context as a way of producing a certain kind of experience, of which one example might be an encounter with a late Cretaceous "dinosaur."

Historically, the Badlands economy was exercised through the primary extraction of fossil fuel, specifically coal. Yet with the mid-century collapse of this resource frontier, an inverse emphasis on the Badlands other subsurface resource - fossils - developed. This manifested in the active capitalization on popular tourism interest in the region by local and finally nonlocal institutions. This strategy culminated with the (1980s) success of lobbying

efforts on the part of the City of Drumheller and (then) Drumheller Chamber of Commerce to have the Province of Alberta situate its new (now “Royal”) Tyrrell Museum of Palaeontology (RTMP) in the region.

The Province’s decision to locate the museum project in Drumheller represents a convergence of local and nonlocal interests in the economic development of the Badlands along industrial lines. However this situation is complicated by the fact that who is and is not a “local” is blurred in this context. On the basis of tenure many permanent RTMP employees may be considered “local.” Yet none of the museum’s current upper and middle management lived in Drumheller prior to the initiation of the project. This observation is compounded by the use of the term local by these “new” residents to distinguish themselves from other community members. In a sense it is possible to characterize Badlands tourism as being built around the multiple meanings of locality, location and locating. This tension is ingredient to Badlands tourism, being related to other more concrete oppositions. This geographic anxiety further complicates the happy meeting of macro and micro development agendas within the regional industry and it is to these that we now turn.

Drumheller’s “Cold Shoulder”

A structural difficulty that tourism promoters recognize, and that its detractors might emphasize, is what is referred to as “the shoulder season.” Badlands tourism is generally regarded as a seasonal phenomenon, and the

fall/spring transitions between periods of high and low tourist flow are a source of economic concern. This provides some basis (though not an exclusive one) for an ongoing discourse on the development of regional tourism, along industrial lines. The idea here, loosely, is that if appropriate infrastructure were in place the regional tourism economy would attract and sustain an annual rather than seasonal cash flow.

This possibility is one (major) consideration behind a tendency to evaluate tourism developments in terms of their industrial potential. Yet the allure of an annual cash flow does not stand as an exclusive consideration in this matter. Locally, this narrative has implications for the situation of various development projects in moral and aesthetic - as well as economic - discourses. Accordingly, not all of these assessments come down in favour of regional development directed along industrial lines. Recently this tension has manifested in several "polar" confrontations between tourism and non-tourism communities, and between competing visions within the tourism community itself.

One example of this latter form of (inter-tourism) conflict was provided by what has been termed the "Golf Course" issue. During 1995 there was a move by a number of (Hanna) lawyers to convert a public recreation area - Horseshoe Canyon - into a golf course (Barnett 1994a). The plan met with visible resistance (Carter 1993). Locally, opposition was voiced by smaller tourism operators and adjacent landowners. This opposition landed

the issue in the Alberta Report which cast the conflict in the mold of “developers versus non-developers or developers versus greens.” In my interaction with the “greens,” two motives for opposition were offered: ecological impact and the “destruction of the view.” This schism played through the general tourism community with relative intensity. Some representatives from the RTMP did not see an issue, indeed, some were surprised at my interest suggesting there was no issue to be found. Yet among small business operators discourse on the subject was more intense. This distribution of concern suggests the issue was more rather than less relevant to operators working at this scale.

Nonlocal resistance was mounted out of Calgary. This was most clearly expressed when a “Trekkie” fan club staged a protest at Horseshoe canyon in conjunction with adjacent landowners (Barnett 1994b). The protest, which was situated at the canyon, provided an opportunity for participants to record a video message to the Premier, Ralph Klein, which was to be presented as a petition enlisting the Province’s intervention in the golf course project.

The Trekkie protest was not the only public event occurring in Drumheller that day. Across the valley the Royal Tyrrell Museum of Palaeontology was commemorating the opening of a new display to the public. This exhibit draws attention to and represents the Devonian oceans to

which Alberta's oil reserves are attributed¹,

. The multi-million dollar exhibit was sponsored by Esso Oil, along with capital from the Provincial government. Accordingly the local MLA, representatives from Esso, the curator, museum administrators, a few hundred museum visitors and "Tony the Tiger" were in attendance.

The unveiling of this palaeoenvironment proceeded through a series of speeches, each underscoring the about-to-be-made-evident fruits of cooperation between resource extraction industries and public institutions. In an attempt to render his work relevant to those present, the curator couched his representation of the Devonian in the terms of Alberta's primary industry: oil extraction. In this instance the political economy of Alberta was made relevant to the long-term geological history of what is now "the province"². "Who would've thought that someday some odd primates would come to depend on the life of this former ocean; as in a sort of

1. The patronage of oil and palaeontology is not an entirely arbitrary affair. The two work in similar ontological territory, evidenced by the ability of provincial oil producers to occasionally "donate" materials such as an Ichthiosaur skeleton. With this, there is the point that in terms of provincial regulation, the two are organized around a common dualism; between surface and subsurface domains. The question of an "industrial totemism" is open here, I think.

2. What I am trying to at once point out and avoid committing is the tendency to speak of ancient geological events as being part of "Alberta history." The sociopolitical geobody we refer to as Alberta did not exist 200 years ago... let alone in the Devonian. This raises the question of hegemony, as a contemporary political economy is chartered within the context of a "fundamental" cosmological discourse. For now, I am content to develop the sense in which this might be a very "honest" public moment.

symbiosis... ."

On this day basic structural polarities moved into a relief. At an outdoor recreation area, a collection of local landowners, tourism operators and tourists gathered to protest the imminent destruction of a natural landscape through the free play of capitalistic agencies. While this was occurring, local scientists, administrators, political figures, and tourists gathered within a central institution to celebrate the re/production of a natural landscape out of the same agency. These contradictions obscure a "bedrock" agreement between disputants. This deeper consensus is embedded in a common resort to landscape (palaeoscape) in relation to specific kinds of concerns conducted within the public domain. The Badlands not only embody, but rationalize development opportunity, however defined.

Tourism: A Political Economy of Past

We can begin to get at the question of what is at stake here by looking at what the local MLA (at that time) Stanley Schumacher (former Speaker of the Alberta Legislature) contributed to the event. This came in the form of a request³; "While you are here in this great province of ours, please, make sure

3. Or advertisement? The choice of rhetoric here is relevant. An economic and moral wealth is embedded in regional space, expressed as the wide-open frontier-ness of it all. The continuity with initial colonizing invitations, the "Selling of Canada" (Hart 1983) and generation of resource extraction frontiers through a similar landscape rhetoric (though generated largely through painting rather than palaeontology) is quite stunning... . We are also touching upon the infrastructural motives behind the historical deployment

you get out and enjoy the wealth our natural spaces have to offer... ." While the RTMP is a major contemporary "draw" factor motivating the Badlands tourist economy, it is not the only one. As implied, the opportunity to access outdoor spaces, (like Horseshoe Canyon) are a significant aspect of tourist interest in the region⁴. In other words political economy might be as relevant to understanding tourist motivation here as is the presence of Badlands fossils.

Obscured by the employment of oppositional tropes like developers versus non-developers or developers versus greens, is that in all of these cases people agree on the basic resources-ness of the place at hand. In the case of the golf course issue, significant opposition to the project was from local tourism operators. These operators are themselves *developers*. These people contributed to their own invisibility as economic minded agents by opposing the golf course on non-economic grounds. That is, they resorted primarily to ecological and aesthetic issues that were articulated through landscape evaluations. Yet the very real concern about the economic impact they would suffer if the *public-access* canyon were to be (successfully) taken over by a *private* golf course never really emerged clearly, that is, *publicly*, during the

of tourism.

4. Most Spring visits to the Badlands are school groups. An essential aspect of these visits is a stop at either Horseshoe or Horsethief canyons, a chance for kids to hike. Or, as the teachers like to say: "Let off some steam."

conflict⁵.

The relevance of access becomes clearer if we note that a number of the project's detractors stabilized or anchored their participation in the region's tourism market by catering to the May/June burst of school field visits to the Badlands. These trips are an attempt to close the school year with a compromise between education and popular recreational agendas. Local tourism operators like the RTMP, Groundwork Natural Science Education, Reptile World, The East Coulee School Museum and Atlas Coal Mine Museum, to name a few, work to ensure the Badlands embody this compromise.

There has been a growing degree of concern over the viability of these school trips, particularly within the 1990s context of the Klein government's cutbacks to education. Fieldtrip planners are under increasing pressure to justify the expense school fieldtrips incur; not to the students, but to school board pragmatics. Accordingly, trip planners have attempted to optimize trip itineraries, either by maximizing venue diversity and minimizing expenses, or by simply limiting their visit to the RTMP (or not going at all). The latter options are sufficient to make regional "extras" like small tourism businesses appreciably nervous.

5. The rhetoric of this conflict relates aesthetics to the more "utilitarian" concern of access. This is clear in the efficiency with which political and economic issues are elaborated through landscape. This observation raises the question of how and why landscape is accepted as a shortcut in public discourse upon these issues.

In terms of these considerations, the conversion of a free, general access, outdoor, recreational venue - like Horseshoe Canyon - into a privately owned, restricted use facility would limit fieldtrip planner's capacity to meet the series of compromises demanded of such trips. In this case, a relationship between the political economy of the Badlands landscape and the visit structure of a central tourism niche is evident.

Another angle from which this relationship can be observed consists in the region's industrial history. In this case the issue of access impinges on the 1980s fluorescence of tourism venues, namely the smaller businesses that have proliferated as complements to the RTMP. This recent tourism activity in the Badlands occurs against the background of an industrial collapse, a background which is ingredient to this tourism fluorescence. As the 20th century visibility of coal as an industrial resource evaporated during the 1950s, 1960s and 1970s, the practical need to exercise the regulatory framework around which coal extraction was organized diminished. This devaluation of local infrastructure resulted in the generation of a new frontier, Badlands tourism⁶.

The scale of this devaluation can be indexed by the observation that towns like Millerfield, Arcadia, Willow Creek and Dinosaur have simply

6. This "new" frontier is organized around a *regeneration of the pragmatic motives* of the prior framework regulating subsurface resource extraction. At the level of regulation, it is a small shift from coal mining to palaeotourism. Both organize property rights around a surface:subsurface (landscape) distinction.

disappeared. Others, like East Coulee, have “hung on.” After “bottoming out” during the early 1980s, this former city of four thousand has rebounded to host a contemporary population of four hundred⁷. This recent growth is related to such factors as the use of the town as a sort of suburb for Drumheller (which is also tied to the intensification of regional tourism), and part of it also has to do with the recent (post-Tyrrell) establishment of several tourism venues in the village, one of which is Groundwork Natural Science Education.

Among other things, these new businesses market access to materials and procedures that were once considered the jurisdiction of the coal extraction industry⁸. Through tourism entrepreneurship, derelict resource extraction infrastructure has been converted into a cultural resource. In turn these resources sustain the development of new tourism venues. Locally, this conversion is significant for the (relatively) low-cost of the process. The East Coulee School Museum runs out of what had become a derelict building, the town’s former school. In light of these considerations, the emergence of an industrialized tourism frontier in the Alberta Badlands can be treated as a recycling effort. The character of this process manifests to an extent, in the

7. What I am describing here is not isolated. There has been a tendency for tourism to “pop up” after similar regional industrial collapses. The Newfoundland Cod fisheries and the emergence of whale-watching is but one example. Cobalt, a former mining town in the Canadian Shield is another.

8. Given the definition of structure I am using (Sewell 1992), what these new businesses are doing is intensely structural.

creative revitalization of an ossified industrial frontier⁹.

One thing that makes this industrial revitalisation difficult to see is that the process manifests as a form of nature oriented tourism. However the presence of the RTMP can help us make sense of this contradiction because the museum foregrounds the point that it is not nature in the abstract, but natural *resources*, that are the object of this regional tourism frontier. Even when it is described as a touristic antithesis to a former "dirty" industry, nature (the fossil *resource*) as an object of popular attention refers to and elaborates historical predicates grounded in the Badlands coal mining industries.

So at the level of both the tourist and the small scale tourism operator there is a relationship between the political economy of access to materials, procedures out of which past is produced, the viability of the general tourism enterprise and an industrial heritage. This goes beyond the commonplace assertion that tourists come to the Badlands "Because fossils are here." The point is that tourists and businesses associated with tourism have access to the materials out of which these objectives are produced, in conventional ways. However, as stated at the beginning, Badlands tourism is a contradictory phenomenon. Its viability is predicated upon not just an open,

9. The metaphor of scavenging is relevant to this description. The scavenging of materials from infrastructural works is a distinctive feature of historic domestic architecture in East Coulee. In these terms, these new businesses have "gone official" with the practice.

abstract access to, but partial *restriction* of tourist's access to space, fossils and the past.

In addition to access, ownership is a significant issue here also. Like the science at its authoritative core, the regional tourism *industry* consists in the brokerage or structuration of public access to special qualities. This economic brokerage becomes more significant if we ask the question of why or how entrepreneurial attention was drawn to the development potential of infrastructure that had "faded" from public view. In this regard, redevelopment has consisted in the simultaneous fading out and foregrounding of the discursive significance of fossiliferous materials in the Badlands landscape.

This thesis is, in general, a consideration of how this process, taken as a kind of value intensification, has been brought about. Badlands tourism consists in a series of contradictions: the co-presence of the past and present, tourist access to space which is at the same time highly brokered, and finally the production of an industry out of these cultural dynamics. There is a sense, then, in which the current success of Badlands tourism consists in the presence of this contradiction, as well as its intensification in touristic practice. I am suggesting that this intensification has resulted in the production of marketable tourism resources, or commodities¹⁰.

e10. My attention to this contradiction has unfolded in relation to an article by Bruce Kapferer (1979). "Ritual process and the Transformation of Context." The contradictions that are articulated in the course of Badlands tourism (see

This rather productive paradox - the establishment of a contemporary resource frontier out of the remains of one that had become "worthless" - is very much a product of relations between the specialist activity of natural scientists and the public. As a popular exercise in the conduct of resource interpretation, palaeotourism incorporates Earth science conventions into the processes by which people relate to landscape¹¹. As noted, Badlands tourism hinges on a landscape contradiction (Figure 1), from horizontal Prairie to vertical Badlands. Palaeotourism is also predicated on an encounter with other kinds of contradictions, like the transgression of the past by the present.

The Badlands landscape then, presents us with a physical homology and an organised set of oppositions that are present in both the spatial and temporal dimensions of travel. Regional tourism is organised around this temporal/spatial/material package. This is one of the things people become conscious of, and talk about while they are here, in the Badlands. If we

chapter six) facilitate the production of a context-object relationship out of the landscape. In this sense, the distinction of a fossil and a context shift our attention from a generalized landscape to a palaeoscape. This social process (the recognition of the '*insitu*') effectively enables our discourse upon the late-Cretaceous. This adds to Hirsch's (1995:4) suggestion landscape is culturally articulated in foreground/background dynamics by demonstrating the social cultivation of this dynamic, in the first instance.

11. The question of "tourist trade" and its task in the economic transformation of regions has been phrased in a short article by Kacirkova (1996). However Kacirkova approaches the matter from within a fairly limited (monetary) sense of what transformation entails. There are other qualitative kinds of transformations occurring here (like the shift from household to political economy) and I am more interested in these latter forms.

follow this linkage, from a contradiction between the Badlands and Prairie, we arrive at the strong ideological oppositions exemplified in oppositional tropes (e.g. The golf course issue), somewhat antithetical (light industry and tourism) economic practices and public:private distinctions. While people have been conscious of the deeper contradiction embodied in the Badlands landscape for a long time, recently, these more surficial political contrasts have become more prominent in public discourse¹².

This recent intensification, or more simply, *emergence* of resource conflict, directs our attention to how palaeontology is used to broker relations between tourists and the Badlands landscape. The intensification of the oppositions I have been describing, have manifested along with the institutionalization of the discursive significance of palaeontology and growth of a tourism *industry* in the region.

Besides being intensely popular (which is critical), palaeontology is itself a discipline that generates the kind of primary landscape contradictions we have been considering. Although it is commonly billed as a passive exploratory effort, palaeontological field practice is nonetheless a form of practice: it has consequences. The active or transformative aspects of exploration are often neglected in our description of prospecting activities. I

12. My attention to the intensification of this basic contradiction into an ideological discourse was developed in regard to Talal Asad's (1979:620-23) assertion the historical conditions of the production of either an ideological discourse (e.g. development conflict) or essential meanings (e.g. fossils) ought to be an object (rather than means) of anthropological analysis.

am considering here a relationship between how our attention is directed into a landscape palaeontologically, and the consequences of privileging palaeontology as a way of doing this¹³. The point is not simply that a contradiction is held out by the Badlands landscape, but that in the coalescence of Palaeontology, tourism and industry in the Badlands, we see an instance in which people have attempted to accentuate and utilize this feature for social ends. Without this observation, this thesis would be an irrelevant exercise.

So what am I trying to accomplish in this thesis? I am trying to get across the point that it is very difficult to get people to locate, let alone recognize fossils. An appreciation of the contingency of this exercise is crucial because without it, the typical “we came here to find fossils” remains a commonplace assertion. It means very little. However the same statement, *and the ease with which it is often spoken*, can become the focus of a series of questions that address the interpretive dimension of modernity. This latter avenue only opens though, if we place this commonplace assertion up

13. Like other specialized forms of industry, palaeontology is itself a discourse on property and value. The property aspect emerges very clearly in the micro dynamics of excavations, where ownership of emergent interpretations is a site of struggle. As for the issue of value, this is central to the entire discourse. In this latter regard here I making this point I am adapting Kopytoff (1986) and Appadurai (1986b). As a specialised process, palaeontological work is transposable from the scientific to the industrial domain. In Drumheller, this transposability is, in part, facilitated by the organization of both fields around the Badlands landscape homology (Figure 1).

against a set of observations of what it takes to navigate a group of people toward a conventional objective, in this case the fossil resource. In this regard, I am trying to address both anthropologists and interpreters, since this thesis has developed within these two milieux.

Methodological Considerations

How am I conducting this study? At a general level, I am interested in the relationship of history and geography as it is articulated in reference to the touristic phenomenon. At a theoretical level, I am treating Badlands tourism as a landscape process (Ingold 1993). This general focus situates my attention on the social and cultural construction of the Badlands landscape as a significant modern phenomenon. At a more particular level, I am interested in moving from this macro level historical/geographic description to a micro or ethnographic level account of the activities of real people. In these terms, I am conducting this study by looking at the convergence of broad and small-scale structuration processes through which the Badlands landscape is culturally constructed.

As noted at the opening of this chapter, I have been employed as an interpreter in the Drumheller Badlands since 1991. As an interpreter in this setting my job has consisted in interacting with a large number of tourists in a relatively small-scale program setting. I have drawn upon company records to come up with an estimate of the number of people I have worked with in this capacity. It is safe, and perhaps conservative, to let this number stand at

20 000. In addition to this number, some aspects of my interaction with these tourists has been standardized. This means there are certain questions that I have asked the bulk of these people. These questions have been asked under very consistent conditions, like the opening of a program. One of these questions has been the aforementioned: "Why did you come here?" Similar questions, and their responses, will emerge throughout this thesis.

Beyond this quantitative technique, I also conducted participant observation during the spring and summer months of 1996. This included informal interviews with a variety of participants. This formal fieldwork stint was oriented by my prior history within the community I have been writing about, and further cultivated via a continuing association with them. I have received feedback on the development of this thesis, and to an extent, the interpretive community of East Coulee has assisted in the development of this analysis. I did do some archival work in the Drumheller Public Library and the library of the RTMP where I was able to get copies of Tyrrell's field notes. The most productive archival experience occurred in the East Coulee School Museum, where I was able to track historical discourse on the collapse of the Badlands coal mining economy through a number of sources.

I have stated my thesis objectives consist in going beyond discursive assertions about what it is that the touristic pursuit of fossils elaborates in the Alberta Badlands. This objective is most directly addressed in chapter four where I describe tourist interaction with the Badlands landscape. I do not,

however, see this objective as an end in itself, but as a way of reframing the larger issues of our popular fascination with palaeontology, the Badlands and the deep past. This means that large parts of this thesis consist in attention to context, as a way of effecting this shift towards an interpretive, anthropological perspective on the subject matter. In the next chapter I initiate this elaboration of a relevant historical and regional context through a discussion of the significance of J.B. Tyrrell.

Chapter Two: The Significance of J.B.Tyrrell

Neither space nor time can be understood apart from social practices which serve to bind them together. (Tilley 1994:27)

In this chapter I outline a structural history of the Badlands region. This outline is organized around a consideration of the historical significance of J.B. Tyrrell, as it relates to his cartographic work in the Badlands of Alberta. In what follows, I describe the manifestation of his significance as it develops in the course of a journey to his namesake, the RTMP. Next, I direct attention to ways in which the contemporary significance of Tyrrell might be considered a problem. With a sense of this problem established, I proceed with the structural history that is the object of this chapter. With this latter outline in place, I will describe what might be termed a “structural core,” something that we will return to throughout this thesis.

The Journey

Whether their point of origin lies north, south, east or west of the Alberta Badlands, a tourist setting out for the RTMP will spend at least an hour and a half travelling upon provincial highways. In charting a course to this special destination, many of these people may refer their route through a highway map. This means a journey to the RTMP involves an extended encounter with the Prairie landscape but from a perspective mediated by the highway and the map. These highways are an infrastructural manifestation of the sociopolitical entity that is the Province of Alberta. In its relationship to the Prairie landscape, this transportation network bears a slight

resemblance to a less tangible framework, the UTM grid (Figure 2).

The resonance of Alberta's provincial highway system with a more general navigational grid is not entirely arbitrary. These highways have been engineered from within an imaginative space already structured in relation to the topographical system that facilitated the settlement of the Canadian west¹⁴. It follows that when tourists refer their travel through maps, their navigation of provincial highways - with recourse to highway maps - partially recalls this prior non-arbitrary moment (Friedrich, 1979)¹⁵.

14. Lewis G. Thomas (1975) has remarked on the role of the "... fatal dream of a healthy society based on a farm family in every quarter section." (15) in the pattern of Prairie settlement. The grid road system is a contemporary manifestation of this dream. Yet there is the question of "what is a quarter section?" As Thomas demonstrates, this is defined in the prairies through cartographic means. "The grid survey and the Torrens system were basically conveniences for the disposal of land to its ultimate owners." (1975:5). There is a relationship between these considerations and the matter of producing land enclosures as a way of capitalizing space (Polanyi, 1965 [1944]:33-42). While Polanyi's concern with enclosure relates to the depopulation of the countryside, in the Prairie experience the device is employed in the service of settlement (unless the aboriginal point of view is adopted). Taken as a generalized landscape process, it is clear cartographic functions have lent a distinct form to the enclosure process. In turn, cartography expresses the logic of enclosure. This is evident in the topocentric manifestation of the highway system, and also in the enclosure that is the Earth science excavation.

15. What I mean by non (or at least less) arbitrary moment, is that there have been historical moments in which pragmatic and/or genetic relationships existed between these elements (the pattern of prairie settlement, construction of infrastructure, imagination of cartographic space). In the case of the travelling tourist these same considerations are recalled, but recontextualized by tourism. J.B. Tyrrell was a resource surveyor, and as such he was one of those who articulated the navigational grid with the prairie landscape immediately prior to settlement. Tourists are not only journeying towards one of those points of articulation, but also engaging (in palaeontology) the means by which this articulation was achieved.

From the topocentric perspective of the map, it is possible to suggest that Alberta's highway network is without direction. With the exception of urban centres like Edmonton or Calgary, provincial roads don't really seem to lead anywhere. Sprawling along cardinal ordinates they hug the province like an infrastructural net, connecting one dot to another, city, to town to campsite. The egocentric experience of travel upon these roads is, however, different. To journey, as during a trip to the Drumheller Badlands, is to express a sense of purpose. The feeling a person is actually headed *somewhere* when setting out upon the highway predominates. As a modern form, journeying simultaneously foregrounds and denies a tension between topocentric generalized space (that of a map) and the concrete egocentric perspective of the travelling vehicle, a singularized unit.

Between these two perspectives - map and highway - travel constitutes the RTMP as an objective, manifest in the strategic progression of a vehicle towards a regional centre. If travel designates the museum as an object, then it is not something without context. This background manifests in the form of a natural, economic, historical and cultural region. On the highway map, this region consists in the distinction between arterial, centre-oriented highways and provincial "grid roads." These latter routes lack an object-orientation, and direct perception back into a de-centered background. In light of this contrast, the centre-oriented highways seem that much more significant. The saying "All roads lead to Rome" comes to mind.

We can substitute the RTMP for Rome as the central structuring destination. Progression towards this objective is indicated by large government signs that proclaim the arrival of each possible exit to this location (e.g. 43 km to RTMP, next exit.) These demarcations gradually become more concrete, referring to immediate, observable landscape features: "300 meters to Horseshoe Canyon Provincial Recreation Area." Moments after encountering this roadsign the travelling vehicle breaks upon a vista which can only be the landscape feature to which it referred.

After an hour and a half of travel across the Prairies from Calgary to Drumheller, the sudden shift from a horizontal to vertical plane of travel presents a contrast that is difficult to ignore (Figure 1). At this point, as the vehicle's movement is oriented along both the horizontal and vertical planes, the government signs are replaced by roadside advertisements. The presence of these markers underscores the strategic value of this landscape transition, as a billboard announces the imminent possibility of "touching the past¹⁶." The promise of this paradoxical encounter is most discursively asserted at this moment, the point at which descent into Badlands space, (a

16. Since the 1996 field season, this particular sign has been replaced with one which calls attention to the existence of a "Liquidation World" in Drumheller (I'm sure it will excite the international travellers who frequent this route). This is another example of the development tensions I was describing in the prior section. It is relevant that this tension recurs here, underscoring the organization of a contest over the ownership and use to which this landscape contradiction may be applied. At the same time however, the location of tension here underscores a deeper consensus that this landscape transition is of value, however defined.

shift in the dominant spatial axis) is “really happening.”

The vehicle has moved into a space in which it is difficult to escape the name of J.B. Tyrrell. Here, his name functions as a contemporary reference point - an index - in terms of which regional discourse is referenced by particular issues. In this semiotic function, “Tyrrell” doesn’t simply reflect a past, it also “refracts” (Volisinov 1973) substantive concerns. Whether speaking of science, economic development, ownership, or even moral disposition, it is possible to index how people stand in relation to these concerns by taking stock of how they reference “Tyrrell.” For some, the name is used to conjure a certain respectability, while for others, the name is used to illustrate more negative qualities (see chapter three).

To an extent, this localized multivocality stands in stark contrast to the formal univocality (wherein “Tyrrell” simply evokes Albertan palaeontology) in nonlocal settings. There is a sense then in which Tyrrell’s significance is geographically distributed. The relative semiotic visibility of “Tyrrell” loosely demarcates a regional phenomenon, one that becomes salient in the conduct of travel. This regional manifestation is evident in the consistency with which Tyrrell is used as an index, the geographic range of this usage, and its implications¹⁷.

17. My description here, of the geographic diminishing of Tyrrell’s significance as we move away from a Badlands centre, is misleading. In the terms that I use it in this chapter, the region is not meant as a “bounded” homogenous phenomenon. Instead the basis of a region here is in the meeting of farming, ranching, industrial and touristic pursuits in a Badlands

Despite the ease with which J.B. Tyrrell has become a significant referent in the Badlands region, this usage poses a bit of a puzzle. Why him? Here, he has been parcelled out as a kind of historical patron of the province yet there are ways in which this relevance is problematic. Ask any tourist what this man did to get a museum named after him and the answer will be presented as an all-too-apparent truth: "Because he was the first one to find fossils here."¹⁸ But if his association with early fossil prospecting in the region was the full (or even primary) extent of his involvement with the Badlands landscape, then why does his name refract other kinds of substantive concerns? Part of this problem consists in the point that Tyrrell was not the first human to note the presence of Saurician remains in these Badlands. They had a presence in the ritual life of the Blackfoot (Gross 1985:75), and as David Spalding has noted:

Dawson, McConnell and Weston all made further discoveries in Alberta before Tyrrell's famous scientific discovery of *Albertosaurus* on the Red Deer River in 1884. This find stands as the sixth in western Canada, and fifth in Alberta. (Spalding 1988:25)

centre, loosely defined as Drumheller. There is a sort of geographic decay involved, but it entails an increase in the public formalization of Tyrrell's significance with movement from an inward-oriented heterogeneity. The regional phenomenon I am trying to get at emerges out of the meeting of these contradictions.

18. I touched on this point in chapter one when discussing the nature of my access to tourists. This simple assertion certainly scores as one of the highest with regard to matters of reliability and validity. I had an opportunity to ask this question in association with the related one of "Why did you come here?" In this case I would have asked the question: "So... what is so special about J.B. Tyrrell?"

If Tyrrell was neither the first Euro-descendant, nor the first human to note the presence of ancestral forms in the Badlands, then why name the world's only museum devoted exclusively to study of ancient life after him? Would Lawrence Lambe, the first Canadian "palaeontologist" to actually come to the Badlands not have been more appropriate (Gross 1985:85)? Or, why could the museum not have been named after a character drawn out of the "Great Canadian Dinosaur Rush?" This prospecting frenzy occurred between 1909 and the mid 1920s, and did manage to generate a number of charismatic figures (1985:89-105).

The difficulty I suspect, is that these other candidates (with the exception of Lambe) were Dinosaur Hunters. While it is true that the Great Canadian Dinosaur Rush did generate a number of interesting figures, they were exercising fossil extraction from within an already constituted resource extraction framework. By the time even Lawrence Lambe arrived in the Badlands, a distinctly Canadian frontier was already established. What distinguishes Tyrrell from the others is the situation of his figure in a practical relationship with the enablement of a successive industrial history.

As a commemorative figure, Tyrrell embodies a series of compromises (e.g. between industry and romantic aesthetics), that are salient from the micro politics of Drumheller through to the institutions of the Province of Alberta and finally the Canadian state. We can refer (or transpose) the significance of Tyrrell through to these higher orders precisely because his

situated role in the Badlands transition to Canadian soil was about enabling these kinds of strategic operations. Tyrrell's dual role as a resource prospector and surveyor was about creating an ability to navigate the nation from multiple points of reference. The substantive character of this role is summed up by the title of a (1954) CBC interview with Tyrrell himself: "J.B. Tyrrell: The Man Who Put the Map on Canada."

In the next section, I outline the relationship Tyrrell established between his career biography and the Badlands landscape during his employment with the Geological Survey of Canada in 1884. If his commemoration at the RTMP serves to focus and orient popular considerations of his significance towards palaeontology, it also serves to background his relationship with the development of coal mining in the Alberta Badlands. By simultaneously foregrounding, backgrounding and intensifying elements of Tyrrell's historical involvement in the genesis of the Badlands as a modern region, his museumification stands as an example of a broader process described by Benedict Anderson as one of "remembering to forget" (Anderson 1991:187-207). In Anderson's terms, this convention is useful in the construction of national biographies, and it is in the service of this latter function that Tyrrell's institutional commemoration begins to make sense¹⁹.

19. The point is being made that Tyrrell's living contribution to the process of nation building is being perpetuated in the use of his figure to help us imagine the consolidation of a national community in Canada's west.

The Survey

A century prior to the ceremonies that marked the completion of the RTMP, the Badlands were utilized in terms of an altogether different "scape of praxis" (Tilley 1994:22) than at present. Prior European expeditions through the region (though guided by natives) included visit to the Badlands (Gross 1985:76). There is also good ethnohistorical and archaeological evidence which suggests that immediately prior to the signing of the treaties, the Badlands valley was utilized in a resource based seasonal economy by the Blood Indians of the Blackfoot Confederacy (Morgan 1991:93-104)²⁰.

In light of the existence of this prior landscape milieu, Tyrrell's practical objectives in the Badlands were not so much tied to the "establishment" of a human sense of the Badlands landscape, but to a transformation of the spatial framework within which this sensibility developed. In the same way modernity was prefigured in the Badlands by an 'other' social milieu, Tyrrell's survey was also prefigured by other expeditions. But there was a way in which Tyrrell's tenure in the region was different than

20. What we are referring to as fossils in our discourse on the Badlands landscape were also the object of ritual offerings by the Blackfoot: "The natives say that the grandfather of the buffalo is buried here. They honour these remains by offering presents as a means of making the spirit which gave them life to help them in their hunt." From the manuscript of Jean L'Heureux cited in (Gross, 1985:76). This observation raises the possibility of future comparative work, along lines established in this thesis. However this potential has been obscured by a limited consideration of this indigenous practice in terms of the European preoccupation with the secularization of geology.

what had preceded it. His survey was the first *insitu* "Canadian" engagement with the Badlands landscape²¹. Entities we currently take for granted, like Western Canada, Alberta, or Drumheller were not salient at the time of Tyrrell's involvement in the region. Yet it is also the case that (like the highways that tourists travel to his namesake) the subsequent development of these places was enabled within a landscape regime that was already formatted in relation to his prior work as an employee of the Geological Survey of Canada.

In its first 60 years, while engaged in mapping the geology of the subcontinent that is Canada, the survey [...]was the first arm of the federal government to make an appearance in many districts [throughout this period] the geographical entity extending over half a continent and known as the Dominion of Canada was still some distance in the future. (Zaslow 1975:3)

Tyrrell's presence in the Alberta Badlands was tied to his employment as an agent of a functionally specialized institution, the Geological Survey of Canada. We cannot understand the historical, and therefore contemporary significance of Tyrrell apart from his employment with this (then fledgling) state organ or its mandate. We cannot understand the significance of this institution unless we situate it in its relationship to prior expeditionary agencies in the Northwest. We cannot understand the relevance of these

21. Another very relevant feature of this expedition is that it was the first to exercise the 'Dominion Lands Act' of 1872. This piece of federal natural-resources legislation defined the survey system Tyrrell was to establish in the Badlands through his work. This system was designed with the express purpose of providing for "... The orderly settlement and the exploitation of the surface and sub-surface resources." (Thomas, 1975:88-89)

prior expeditionary agencies in isolation from processes of territorial consolidation that were cohering during the period between 1792 and 1887.

The period during which Tyrrell conducted his exploration of the Badlands was bracketed by three significant, legal, economic and political events. The first was the successful completion of the joint American-Canadian Boundary Commission during the period 1858-1862²². The second consisted in the (1881) choice to build the C.P.R through the southern (Canadian) Prairies (Eagle 1975:336-337). And the third relevant event manifested in the signing of Treaty Seven (1887) with the tribes of the Blackfoot Confederacy. Together, these occurrences express a developing consensus on the manifestation of a Canadian sovereignty in the Northwest. This consensus was followed up (or enforced) with a subsequent influx of "Canadian" settlers. Tyrrell's career as a surveyor in the Badlands touches upon each of these moments. In what follows, I will describe some of these connections.

Drawing upon his father's political connections, Tyrrell managed to get himself drafted into the Geological Survey of Canada (Inglis 1978:65). Shortly after this, the Canadian parliament applied pressure to the Survey's directorship to facilitate the westward development of industry (Zaslow

22. The history of this commission really underscores the existence of significant tension between the Dominion and American governments over ownership of the Northwest. This further underscores the centrality of exploration and immigration in the consolidation of stable nationalized territories in this historic period (Stanley, 1970:4-7).

1975:4). To meet this request, the Geological survey was charged with the task of facilitating navigation through survey work, and industrial development through the location of resources like coal. By 1883, pressure to meet these imperatives culminated to land Tyrrell a position as a field assistant to George Dawson in the Kicking Horse Pass.

Tyrrell's apprenticeship under Dawson provides a useful focus for the elaboration of a relevant context for an assessment of Tyrrell's stint in the Badlands. Dawson had been a member of the British North American Boundary Commission that surveyed the border that distinguishes Canadian from American soil along the 49th parallel (Gross 1985:81). As a key surveyor, Dawson's career relates a concern with the consolidation of Canada against an external nation-state to the internal structuration of Canadian property regimes in the form of internal political and economic infrastructure. This link is particularly salient in relation to the development of the C.P.R:

As part of its plan for settling the Northwest, the Dominion of Canada negotiated the building of the Canadian Pacific Railway. Prior to the advent of immigration, which the railway would facilitate, the government fielded exploration parties to map large areas of the country and to assess its mineral wealth. Construction of the railway got under way in 1881. That same year, under the direction of George M. Dawson, the Canadian Geological Survey began work in what is now Alberta. (Gross 1985:80-81)

This latter project provided the setting of Tyrrell's apprenticeship as a field assistant to Dawson. Here we can see the historical importance of surveying and resource locating activity in terms of how it was intended to facilitate national infrastructure development in the Northwest on Canadian

terms. Tyrrell's later activity in the Badlands was an extension of this same effort.

After only one year in the field in this capacity, Tyrrell was entrusted with an independent survey, stretching over a forty-five thousand acre area between the Bow and North Saskatchewan Rivers. The future site of Drumheller lay approximately in the centre of this large area, and it was there, in June of 1884, that Tyrrell decided to begin the work that was to take him three years to complete. (Gross 1985:82)

As noted, Tyrrell was not the first person to survey the Badlands. His expedition was immediately preceded by the (1859) British expedition led by Sir John Palliser. This prior assessment of the region's potential for settlement by the British government included Dr. James Hector, a Scottish geologist. Like Peter Fidler before him (1792), Hector noted the presence of significant coal deposits in the Badlands landscape. The parliamentary direction of Tyrrell into the Badlands was a consequence of these prior observations. Yet the political consciousness of these resources was not developed to the extent that it could be relied upon for the actual coordination of an extraction effort.

Perhaps because of the administrative problems encountered by the expedition during its explorations along the lower Red Deer River, Hector did not make as extensive an analysis of strata of the valley as he could have done under more relaxed circumstances. (Gross 1985:80)

The nature of these difficulties are tied to an internal political dynamic:

The reputation of the Blackfoot as both dangerous and hostile created problems for the expedition, which was slated to travel through the heart of Indian territory. [...] There were difficulties with guides, first in engaging their services, and later with their desertion because they were afraid of the Blackfoot [...] the expedition was harassed all along the way by small bands of young braves. (Gross 1985:80)

Consolidation of the Canadian state was contingent upon the development of internal partnerships as well as international ones. The conclusion of Tyrrell's survey coincided with the signing of Treaty Seven (1887). Set in the context of North American colonization, we can see that Tyrrell's Badlands conduct was contextualized by the consolidation of Canadian territory. Furthermore, Tyrrell himself played an instrumental role in the establishment of this transformational context through his employment as a surveyor.

The pairing of prospecting and survey tasks in Tyrrell's work was pragmatic. There was not much point in 'finding' (prospecting) resources unless they could be precisely 'located' by other people. We can view the conduct of Canadian exploration during the 19th century as an effort in national consolidation via landscape enculturation, something Tyrrell articulated in his practice. In this sense, Tyrrell was acting as what, from the point of view of the nation, we might call a historically significant agent. We might now raise the question of what his agency consisted in.

Between the years of 1884 and 1887, J.B. Tyrrell was not acting as a Canadian citizen in a consolidated Canadian territory. But he was acting as an agent of this imminent geopolitical form. I am suggesting that the wave of surveying activity that constituted the matrix of Tyrrell's career was instrumental in the internal and external consolidation of the nation. But what is equally important is how Tyrrell's survey enabled a nationalized

capacity to imagine the regional landscape in the political and economic service of large-scale immigration and resource development.

In this section I have lingered upon the issue of surveying, treated here as a way of indexing space for the purposes of generalization (evident in how it enables coordination at a national level). I now want to look more closely at the substantive relationship Tyrrell established with the Badlands landscape, something best dealt with through attention to his prospecting practice. In his role as a surveyor, it is easy to cast Tyrrell as an agent of the state. But his contemporary significance is also a result of a deviation from this infrastructural agency. His location and transportation of Saurician fossils from the Badlands to the east was a personal decision, and this innovation merits attention²³.

Landscape Structuration

Before discussing relationships between Tyrrell's cartographic involvement in the Badlands and their subsequent historical development, I will define what I mean by the term "structure." I am working with a definition of structure that has been elaborated by William H. Sewell in a

23. Both coal and "fossils" are "fossil" resources. Yet in the one case the resource is an actual paleoenvironment (swamp/coal), while in the other it is an object within the palaeoenvironmental context (Dinosaurs/fossils). It is interesting that the two focal resources should complement one another as context to object. It is of course a myth to emphasize the swamp. Other more significant paleoenvironmental contexts are present in the valley. Yet the complementarity of these two resources might be related to the ease with which Dinosaurs and swamps are related locally.

(1992) critique and reformulation of Anthony Giddens's and Pierre Bourdieu's treatments of the same subject. Sewell's reformulation is an attempt to emphasize the active aspect of the notion of structure:

The term structure empowers what it designates. Structure, in its nominative sense, always implies structure in its transitive verbal sense. Whatever aspect of social life we designate as structure, is posited as "structuring" some other aspect of social existence. [...]Moreover, the notion of structure does denominate, however problematically, something very important about social relations: the tendency of patterns of relations to be reproduced, even when the actors engaging in the relations are unaware of the patterns or do not desire their reproduction. (Sewell 1992:2-3)

My attention to the presence of J.B Tyrrell in the early Badlands landscape - in structural terms - is an attempt to address the question of how his situated practice here has been referred through to the present. I am also interested in the additional question of why this historical distinction has become grounded in palaeontology, to the exclusion of popular attention to his role in the development of the Badlands coal reserves. This is the "remembering to forget" dynamic noted by Anderson, and is a process consisting in the intensification of a context-object relationship.

In articulating his approach to structural analysis, Sewell follows Giddens in treating structures as consisting in the unity of cultural schemas and resources. Sewell argues this unity is dialectical in the sense that resources are capable of generating schemas and vice versa (1992:13). One point that follows from a conception of structure in these terms, is that:

Nonhuman resources have a material existence that is not reducible to

rules or schemas, but the activation of material things as resources, the determination of their value and social power, is dependant on the cultural schemas that inform their social use. (Sewell 1992:12)

We can operationalize this point by noting that coal and Saurician fossils are treated as nonhuman resources in our discourse about them. This allows us to raise the question of how these “rocks” have come to be designated as resources (let alone focal ones) in the first place. I am suggesting that in the case of the fossiliferous elements of the Badlands landscape, this designation, activation, or distinction is very closely related to the agency Tyrrell exercised in his conduct as a prospector and surveyor. Since the time of Tyrrell, these materials have stood as *the* basis of the Badlands resource economy and this justifies treatment of his figure as the basis of a historic structural form.

Tyrrell predicated modern political and economic structures in the Badlands region by pairing coal with stratigraphic schemas. He effected this pairing by conducting “sections” on the Badlands stratigraphy at various points along his route through the Red Deer River valley.

Aug. 10th. In the morning I rode up the bank of the creek till within sight of the place I had reached on riding down from our former camp, following the same rocks up, not being able to see any appreciable dip or strike. *I also made a section of the rocks in the bank close to camp, all of which occupied me till noon [italics added].* (Tyrrell 1884:4)

These sections facilitate the precise relocation of Tyrrell’s relationship to the Badlands landscape, since like a fingerprint, the precise details of his sections could be rematched by subsequent prospectors. This pairing

constituted coal not only as an industrial, but national resource. This helps us see the long-term structural impact of Tyrrell in the coal mining industry that sustained the region through the 1900s.

It would seem at first that contemporary palaeotourism would constitute a deviation from this structural history. When he did encounter them, Tyrrell identified Saurician fossils *in a relationship to* the Badlands landscape through the individuating device of the field notebook entry²⁴. From this source, (Tyrrell's fieldnotes) it is not apparent that he conducted a section that would have stratigraphically indexed his finds. He did however conduct a section in the proximity of the "... large head, almost perfect [...] I *made a section of the rocks close to camp*, and packed up such of the bones as we could carry up to the top of the hill... [Italics added]" (1884:6).

Despite the contrast in how Tyrrell indexed the location of these resources (coal relative to Saurician fossils), he did nonetheless objectify both these materials within a landscape context. If on the one hand he generalized coal as a resource, (in line with the infrastructural motives behind his rationalizing survey), on the other hand he later particularized the experience

24. I have italicized "... in a relationship to..." here because I am suggesting Tyrrell is objectifying the Badlands landscape in his treatment of both coal and Saurician fossils. Like the journey to the RTMP, and 'remembering to forget,' Tyrrell's objectification of the landscape during his fieldwork is a crucial process. It accounts for the activation of the Badlands landscape as a generalized resource and as a site of significance. We will return to a discussion of this process in chapter five where it is still operative in the "Interpretive Event."

of finding, that is, prospecting, Saurician fossils²⁵. This latter alignment of Saurician fossils with the individuating activity of prospecting is entirely in keeping with the romantic motives behind Tyrrell's own interest in working for the Geological survey (Inglis 1978). It is also entirely in keeping with the modern history of fossil hunting since it eventually developed into a charismatic competition between Canadian and American fossil hunters (i.e. the Great Canadian Dinosaur Rush). In this sense Tyrrell's alternate handling of coal and Saurician fossils remains consistent with the structural history that developed out of his treatment of the Badlands landscape (Table 1).

Tendency	Practice	Schemas	Agency	Resource	Motive
General	Surveying	Enlightenment	Directive	Coal	Pragmatic
Particular	Prospecting	Romance	Innovation	Fossils	Cosmology

Table 1: J.B Tyrrell, Locational Practice and a Structural Core

There is a sense in which Tyrrell's presence in the region continues to structure the political and economic life of the Badlands and, by extension, the Province of Alberta. In his capacity as a surveyor, he was charged with the task of grounding a generalizing framework (the UTM grid) in particular

25. This particularization was perhaps in response to pressure to romanticize his encounter with the first Albertosaur skull. There is a contradiction between the casual, unremarkable description of the event given in his fieldnotes and later descriptions which are much more dramatic (see Inglis 1978). There is also the question of how the official nature of his fieldnote entries might have conditioned the tone in which he recorded field events. In light of material at hand, the issue remains murky.

resource distributions during his interaction with the Badlands landscape. In this sense, fossil resources have been situated, historically, as anchors of the spatial framework we use to engineer development and property distinctions in the Canadian west.

This observation establishes a fresh insight into our modern predisposition towards these resources. As Sewell notes: "Sets of schemas and resources may properly be said to constitute structures only when they mutually imply and sustain each other over time." (Sewell 1992:13) It follows that attempts to maintain, conserve or otherwise revitalise these structural forms would involve the direction of sociological attention towards these resource-schema precursors. I would argue this provides a partial account of the touristic cultivation of the Badlands palaeoscape.

As the extraction frontier of coal mining began to collapse during the mid-1960s, local economic institutions attempted to reinvigorate the regional economy by referring to landscape. In a 1964 brochure titled; "Coal and Fossils," the Drumheller Chamber of Commerce (DRCDT) directed specific attention first to the distinctive landscape of the Badlands, then qualified this landscape with attention to the "wealth" of fossils it contained²⁶. From these

26. Two points are relevant here. The acronym (DRCDT) given for the Drumheller Chamber of Commerce refers to this institutions current name: Drumheller Regional Chamber of Development and Tourism. With the exception of specific historical references, I will use this acronym to refer to the Chamber in general. As for the brochure, it is an "awkward" inclusion. I first imagined this chapter through an encounter I had with this brochure. Unfortunately I have been unable to relocate the original in the ECSM

popular assertions, the brochure attempted a metaphorical transposition. In the way the Badlands were uniquely endowed with fossils, they also were uniquely endowed with industrial potential.

The “sense” this transposition made was predicated by Tyrrell. He established, locally, the “deep” structures the DRCDT invoked by their attempt to engage the popular imagination of the Badlands industrial potential. These deep structures are not salient in the landscape unless people actually go out and reproduce some of the relations articulated historically by Tyrrell, and I will demonstrate that this is indeed occurring in Badlands tourism (see chapter five).

Period	Schemas	Resources
Modern	Industry	Coal (Natural)
	Nationalism	Fossils (Cultural)
Inversion	Marketing	Landscape
Postmodern	Industry	Fossils (Natural)
	Nationalism	Coal (Cultural)

Table 2: Diachronic Inversion of the Core (to 1990)

There is a sense then in which contemporary tourism is a dialectical play with the relations of schemas and resources that ultimately address the structural bases of the Canadian west. It is not so much that Tyrrell’s significance rests in the postmodern inheritance of prefabricated structures, but that we have inherited the basis of a structural core, part of which already

archive. During the summer of my field work (1996) the archive of the DRCDT was flooded.

consists in innovation along certain lines (Table 2 from Table 1). See also Table 3). In the next chapter, I continue to describe the social life of the Badlands by looking at how they have developed as a region in relation to the historical/structural core described in this chapter.

Chapter Three: Badlands Tourism as a Regional Context

The main objective of this chapter is to create a contextual link between the historical considerations discussed in the last chapter, and the analysis in chapter five of a touristic event. I create this link by continuing with the notion of the structural core as elaborated by Tyrrell, but showing here how the diachronic play of this core dovetails into the synchronic structuration of the Badlands economy. I focus here on a number of relationships; the internal structure of the RTMP, the relationship of the RTMP to East Coulee, and community relations within East Coulee. The statement I am working towards here is that as an act of representation, tourism is as much a manifestation of local power relations as it is a service-oriented industry. This concern with power puts a twist on the interpretive project since in Badlands tourism it is already interpenetrated by brokerage processes. This interpenetration is particularly salient at the RTMP, so I begin with attention to its institutional manifestation.

Establishing a Regional Standard: The RTMP

Ideally, the RTMP is a rationalized dual organization. It is composed of functional specializations that are intended to compliment one another. This is apparent in the extent to which details of its operation have been engineered: "Seemingly simple things such as the seating were carefully thought out" (Baird 1988:49). It has a technical staff that completes a scientific staff (as in the relation between mental and manual labour), (Sohn-Rethel

1978), an education staff to compliment the curatorial, and so on. This organization follows from a more basic opposition, between the "research" and "education" mandates embodied in the enlightenment program. In context, the liberal objectives of this program entail both pragmatic and cosmological functions. These functions manifest in the production of a grounded discourse on evolution, and at the same time, regulation of public and private interaction with fossil resources in accord with Alberta's Historic Resources Protection Act (HRA). This attention consists in the official structuration of human relations with the subsurface.

This description is of course an idealization, though one which is embodied in the museum's own self-description. Relations between the museum's two departments are mediated through, among other things, the development of a common resource, that being the fossil objects which are produced, treated and stored within the museum itself. It can be reasonably stated that the museum is about the production of past - the late Cretaceous - out of the Badlands landscape. This objective constitutes the landscape as a site of resource development, though in terms relative to the object. In accord with this differentiation of the landscape, there are also distinctions in the quality of "past-ness" that emerges out of this generalized process. In general terms, the museum, its architecture, technology, and compliment of

staff are seen as “the” source of the legitimate past in the region²⁷. Regionally speaking, it is here at the RTMP that the relationship between the past as an objective, fossils as resources and the technical (defined as palaeontological) means towards the attainment of this objective are most authoritatively rationalized (and affirmed) in the public sphere.

So there is a sense in which the relationship of the museum to its setting is both productive and authoritative. The same is true for relations that are established between tourists and this institution. Part of this establishment is tied to the notion that the kind of past produced by the people who work in this museum is of the “really real” type (Geertz 1973b:124). There is a moment in the public gallery space at which the relationship between tourists and past-producing specialists is bridged. This most direct moment of contact occurs at a large window, through which the fine preparation lab is visible. In the work space below, fossil jackets are cut open, apparently to receive special treatment in the form of intensive technical attention/exploration. This is nothing less than a form of labour-as-spectacle. Here, the practical application of technique to material bounded by a plaster jacket enables the human realization of the interface between matrix and fossil, micro context to object. Out of this, the

27. There are of course differences of opinion on this. We do not need to go too far in order to find critics of the RTMP and its vision of what constitutes temporal fundamentals. Chief among these would be the creationists who do frequent the museum as a way of refuting gradualist assertions of the consistency of evolutionary processes.

epistemological basis of a trans-temporal narrative is rendered visible in a public context.

This public exposure is a form of interaction that is highly structured. People might walk away from this moment with the sense that they have just peered into a special process, one which results in something equally special, the “real past.” Speaking literally this is exactly what has happened here, people have assembled at a barrier, and participated in the process perceptually. I have seen and overheard a somewhat muted sensitivity to the political subtleties of this arrangement. This is expressed by general tourists in the visual space of the gallery when “special tourists” are for various reasons “guided” into the work space of the lab. “Why do *they* get to go back there?”

During these special guided tours, a minority of tourist’s retain the typical participation-by-vision status, but from within the interior of the spectacle. They are also in a position to engage the technicians. It is somewhat ironic that in this case, the tourists privilege is tied to the ability to move into somebody’s 9 to 5 work space. In some cases these are schoolgroups, children from the Dinosaur Country Science Camp, foreign dignitaries, or even Canadian astronauts. Yet even these “privileged few” are often warned against physical contact with either tools or materials. In some cases, these “Backstage Tours” as they are referred to, have either been cancelled or delayed because “sensitive material” was being worked upon.

The intensification of brokerage processes here, taken as experiential restriction, might seem ironic considering the objective of the museum experience is ostensibly the articulation of a public with the really real past. In this case, the restriction of a generalized experiential access to the resources and procedures out of which the phenomenon is realized would seem to mitigate against the realization of the object. So why do it? It could be argued these restrictions are a pragmatic consequence of a combination of factors. The museum is an example of a rather extraordinary resource accumulation (Sewell 1992), there are many “interested” people milling about the place and to top it all off, the fossiliferous objects of this attention are very unstable, even fragile in this domain. The need for regulation here, as in the lab, is self-evident. But we might also ask what role do these pragmatic constraints play in the production of the extraordinary experience? The intensification of brokerage processes (the formalization of interaction) actually contributes to the cultivation of an extraordinary yet ‘really real’ experience. In light of this we might ask whether the intensification of brokerage processes in the museum setting is really antithetical to the interpretive objective.

The RTMP is the monumental site of the significance we attribute to the figure of J.B. Tyrrell. Yet as noted earlier, his name is of regional significance. Regional tourism emerges out of several places and these are salient within a regional tourism phenomenon, for the way in which they refer back to Tyrrell. Yet they do not all do this in the same way. In other

manifestations of regional tourism it is the industrial history of coal extraction that assumes a touristic focus. In these cases, not only is the resource emphasis shifted, but so too is the order of visibility. Although Tyrrell's activity in the region was most officially tied to the enablement of this latter industry (coal mining), the region's commemoration of the time when "Coal Was King" does not make any special attempt to relate his person to the phenomenon.

If, for example, we look at Dinosaur trail, we may witness a variety of themes stretched out along a tourism loop. Attractions (and campgrounds) such as Midland Provincial Park, the "Little Church," "Horsethief Canyon," and "Bleriot Ferry," define the trail's north west manifestation. The Swinging Bridge and Hoodoos define its east end. This trail more fully exemplifies the presence of the structural set enacted by Tyrrell (coal in addition to fossils) than the RTMP although it does not, independently of the museum, commemorate him. This tourism infrastructure also pre-dates the establishment of the museum, testifying again to the point that the RTMP itself is not the only "pull factor" relevant to understanding local tourism²⁸. It is however, relevant that this pre-RTMP tourism infrastructure reflects local rather than governmental development (or capitalization?) initiatives.

28. This is relevant to observations at the Swinging Bridge and the Hoodoos where an informal sense of "family tradition" is evident. Many of the parents who are bringing their children to these venues visited the Badlands back when Dinosaur Trail was the primary attraction.

I discuss specific observations made at three sites along this trail in the next chapter. But for now, I want to examine macro relationships obtaining between the RTMP (taken as a center) and East Coulee (taken as a periphery). There are a number of reasons for looking at the relationship between the museum and this hamlet (Figure 3). As a locality, East Coulee embodies the structural set defined by Tyrrell to a fuller extent than the RTMP. That is, East Coulee's historical *and* contemporary dynamics relate coal, fossils, romance, rationality, landscape and tourism. The RTMP does not have a clear emphasis on coal. Secondly, tourism as a regional phenomenon is the issue here, and the RTMP-East Coulee relationship defines a significant radius of this regional form. Finally, as a tourism destination, East Coulee itself cannot be adequately understood in isolation from the dominant institutional manifestation of regional tourism, the RTMP (Figure 3).

"Historic" East Coulee

East Coulee was one of the last holdouts in the collapse of the Badlands coal mining industry. Situated alongside the coulee from which the hamlet drew its name, the Atlas Coal Mine was the last to shut down in 1979. Like the other towns which experienced this collapse, East Coulee suffered rapid depopulation. The difference for East Coulee though was that it managed to survive the drain. Most associated places, Millerfield, Arcadia... didn't. This is partially tied to the point that East Coulee's Atlas Coal Mine (ACM) was the last to shutdown. As a consequence, the hamlet still has a (relatively) large

amount of its industrial infrastructure in place. Ironically, the abundance of this “useless junk” sustained East Coulee’s recent stabilization. The remnant structure that was the ACM served as an early focus in the initiation and definition of this revitalization.

By the time the ACM closed, valley residents had begun to assimilate the way in which the regional landscape was being transformed through depopulation. As an available structure, the derelict ACM was capitalized upon as a monument to the type of place “this had been.” This capitalization manifested in the conversion of this infrastructure into heritage. What was the ACM is now the Atlas Coal Mine Museum (ACMM). This mid-1980s redevelopment was initiated by the DRCDT. The Museum now exists as a cultural community resource, and is administered by a volunteer board. This shift from being a privately owned industrial site to a community-held monument presents us with a case that addresses a question phrased by Raymond Williams in his attention to the effects of de-industrialization on post-industrial communities (1989). In the case of East Coulee, economic collapse has resulted in depopulation. But for some people, this negative consequence has also had a silver lining. Locally, resources and other forms of infrastructure have become more generally available precisely because they have been devalued.

In the wake of this transformation, tourism has taken root. The questions of how and why this has occurred remain. It would be narrow to

suggest touristic attention to the mine was simply a vulgar effort in job creation. The character of the agency behind the initiative to capitalize on the ACM as a form of heritage was the DRCDT. In saving, preserving and restoring (respectively) the ACMM and presenting it to tourists as an object for reflection, local innovators capitalized upon a local dialogue on place by converting it into a local:tourist dialogue on place. The existence of this discourse makes sense against a background of prior and imminent depopulation. The touristic intensification of this discourse recast derelict local infrastructure from a failed instrumental to sentimental and nostalgic set of valuations. This discourse on place is characterized by attention to issues of relations between work and lifestyle, immigration, settlement, modernization, nation building and quality of life.

In addition to the obvious opportunity which presented itself in the form of a “cheap” coal mine available for monument creation, availability alone does not account for its development as such. The point that the instrumental action behind this development was the DRCDT is instructive. This regional institution holds a commitment to a particular form of regional development (capitalization along industrial lines), and the commemoration of an industrial heritage is not incompatible with this agenda. By commemorating industrial infrastructure as “heritage,” the DRCDT has established a claim on the biography and character of the community referenced by the monument and discourse it grounds.

“Place” and the Internal Structuration of East Coulee

The conversion of the ACM into a museum foreshadowed the recovery of East Coulee and its transformation into a (seasonal) tourism community. Proportionately, the number of households that are sustained through a direct economic participation in tourism are in the minority. What I am referring to here is a reversal of the depopulation of the town, with new residents moving in, and the establishment of new local businesses. Within East Coulee, tourism is the core economic activity.

This internal dynamic developed during the early 1980s when a local landowner teamed up with the local bar owner to buy and restore the hamlet's former schoolhouse. A historical society was founded and through capital donations from the provincial government and input of volunteer labour, the school was revitalized as a museum. The East Coulee School Museum (ECSM) now stands in addition to the ACMM as an example of relict industrial infrastructure being picked up cheaply and converted into a local cultural resource.

The ECSM is currently administered through its historical society. This society did not originally own the School, but in the wake of a vague scandal (over the disposition of community funds) ownership was fully transferred. This transfer of ownership marked a breakdown in relations between the concept of the museum and the broader community of East Coulee. However this antagonism did not just attach to the idea of the museum, but to the

physical structure of the museum itself. This lingering sense of opposition to the ECSM from within East Coulee is tied to the point that the people composing the historical society represent an 'alternate' perspective on the kind of place East Coulee is. There are some in the community who would like to see the return of a modern, industrial-style economy to East Coulee. There are others, and these are aligned with the ECSM, who would not appreciate such a return. I am referring to these two communities as modernizers and traditionalisers, respectively.

The traditionalising community is at odds with what we might refer to here as "locals." Although East Coulee is presented as a model "hamlet," or intimate face to face community by traditionalisers, it is not heterogenous²⁹. My own positionality, as an interpreter in the local tourism economy comes into play here. There are people whom I met each day and have never even spoken to. In some cases, eye contact is rare. East Coulee consists in multiple assertions of place, assertions which are not simply about identity, but also about local development trajectories. The people who currently administer the ECSM assert but one of these visions (the traditionalisers).

Within East Coulee there are three basic sub-communities in terms of

29. In employing this distinction, between a traditionalising and modernizing community, I am at once identifying and structuring my presentation around local recourse to a more general narrative theme. This theme is widely salient as a popular antithesis of tradition and modernity. Here, this popular form is put into service as a common strategy in a local contest over place. I have taken my cue here from Smart and Smart (1998:12).

which these assertions have been developed. A relatively strong opposition exists between what I have referred to as locals and relative “newcomers.” These newcomers are the artists, teachers, museum scientists and interpreters who have moved into East Coulee since the closing of the mine. The locals represent a pre-collapse community. A third community exists more as an underclass, composed of both “immigrants” to the town, and people who have “always been there.” This group is unified in the sense of being thought of as “edge people.” These are the clearest brokers between the other groups, being hired for odd jobs.

The opposition between locals and newcomers is complicated by the point that some of these “newcomers” have been living in East Coulee for 15 years. The distinction is not simply a neutral product of historical tenure. It rests upon, among other things, aesthetic criteria grounded in the internal division of neighbourhood space into individuated households. The basic nature of these contrasts can be elaborated through a comparison of East Coulee’s two most public buildings, the ECSM and the Community Hall (Figure 4).

The Community Hall was built in 1992 after a prior hall remained true to local tradition and burned down. It was built across the street (north) from the School Museum. In stark contrast to the apparently whitewashed historic architecture of the ECSM, the Community Hall was built out of decidedly contemporary materials. The traditionalising community’s aesthetic

estimation of this new, peach pastel structure was summed up in the ironic query: "So... how'd you like our new Kentucky Fried Chicken?" Architecturally, this building could have been built anywhere. Anywhere, that is, except during East Coulee's historic period.

The School Museum is a typical piece of heritage architecture. The building looks, sounds, feels and smells old. Tourists often comment on how the creaking of the museum's hardwood floor "transports" them to an earlier time. In the contrast between these two community buildings, modernization and traditionalisation manifest as tangible yet distinguished strategies. This contrast is not lost on members of these two communities. I have built this analysis out of their own comments on the architectural embodiment of these community tensions.

This basic contrast can be extended through to neighbourhoods surrounding the architectural opposition I have described here. Members of the traditionalising community have attempted to maximize the visibility of old or historic materials in their yards. In this function, outhouses are particularly popular. In some cases they have been articulated with other historic architecture to create cheap though unique storage space, or in some cases drying sheds. This practical aesthetic is complimented with a healthy dose of "naturalism" in regard to things like lawn care. This latter technique has found its clearest expression in the use of rabbits to look after the ecological dynamics attending lawn care.

By contrast, members of the “modernizing” community spend a great deal of time addressing a more urban aesthetic in the manifestation of their yards. This includes attention to the proper manifestation of geometry in the distinction of garden space from lawn space, driveway from sidewalk, footpath from flowerbed. The lawns are a bright green and free of weeds. In other cases, the yards are not as well maintained, but instead of the “naturalism” previously discussed, these tend to manifest an “industrial” aesthetic, with the accumulation of “spare engine parts,” waiting for a project.

These contrasts do set the stage for some interesting tensions. Traditionalisers tend to be more “green” in their outlook, and evidence of obsessive application of herbicides by the modernizers draws their criticism. To the traditionaliser’s credit, this evidence is not always too difficult to come by. The difficulty here is that East Coulee water comes from household wells. These wells tap into the subsurface water table which exists as a common resource. Everyone has a sand point story to tell. Therefore there is attention to what people do as well as what they do not do to their lawns. Herbicides applied to a household lawn will show up in the subsurface commons. Or, to take another example, the establishment of predator-prey relationships between the bunnies of the traditionalising yard and the household felines of the modernizers has been a source of antagonism.

If we place these oppositions in historic context, we can see two communities in East Coulee each “playing” with the structural set elaborated

by Tyrrell. Although both communities engage this process, they are distinguished from one another in that they have inverted (in opposition to one another) elements of this structural core (Table 3). The modernizers are attempting to purge coal related ‘junk’ from their homes and lives. But they do nonetheless retain the positive value on industrial schemas, as these are referenced in their approach to landscape aesthetics. In contrast, the traditionalising community is building upon coal related resources but does so by fetishizing them. There is a creative dynamic tied to this fetishization insofar as it has facilitated innovation with procedures that constitute their value (see Table 3).

Agency	Case	Schema	Resource	Opposition
Tyrrell	Locating	Generalizing: Particularizing:	:Coal :Fossils	-Facilitating industrialization of coal. -Facilitating the fetishization of regional fossils.
Modernizers	Tourism	Quantfication (Generalizing significance)	Saurician Fossils	-Positive emphasis on industrialization of fossil resources.
Traditionalizers		Fetishization (Individuating significance)	Coal Mining	-Capitalization upon the deindustrialization of coal resources.

(Table 3: Synchronic Inversion of Tyrrell’s Structural Core)

Interpreting a Commodity/Defining Place

It is possible to further distinguish the modernizing from the traditionalising community by noting that the two communities also contrast in how they engage local tourism. Generally speaking, “locals” do not participate directly in the more popular tourism ventures. More specifically, tourism employees, or “interpreters” who work in East Coulee tend to identify more with the traditionalising community. This is significant, since most tourism jobs in East Coulee are of the interpretive variety.

It would be possible to suggest these professional interpreters fetishize relict infrastructure: they do (Figure 5). This point is also evident in the arrangement of the ECSM archive and display space. Here questions of what constitutes “junk” and what is an artefact are not raised, or addressed in a consistent, discursive way. Beyond the absence of formal procedures, I refer to this treatment as being fetishistic because of how the staff dealing with this material tend to dwell upon the non-use or intrinsic value of the museums holdings, in a positive way. The notion of a collective property (related to a sense of heritage) is not irrelevant here.

Although I have invoked notions of fetishization and collective property in relation to the operation of the ECSM, it is important to keep in mind the traditionalising community is heavily implicated in the economic development of East Coulee’s tourism potential. In other words, within tourism these ‘alternative’ schemas are not antithetical to the emergence of a

local tourism market. This relation of the fetishized and the market is clear in partnerships constituting East Coulee's tourism infrastructure. Groundwork Natural Science Education (GNSE) is a small interpretive business established in 1989 (see chapter one). This business has developed through participation in the traditionalising tendencies described above. GNSE runs its core program out of the ECSM's former science lab. This space is available to a low-overhead operation like GNSE because the lab is relatively useless in terms of its historic function as a curricular science lab. But by recontextualizing this ossified use-value within tourism, GNSE has transformed this space into one with a historic "character." In turn this has contributed substantively to their commodification of the lab and the palaeontological program it hosts.

In the way that GNSE has benefitted from the accessibility of the School Museum and local infrastructure, the ECSM benefits from Groundwork's presence. Reciprocity between GNSE (as a somewhat traditionalised manifestation of regional palaeotourism) and the ECSM (as a invigorated economic institution via association with an entrepreneurial effort, GNSE), provides a glimpse into the internal structuration of the traditionalising community and its economic success. The various agencies that constitute this community could not have established such a degree of market autonomy in either more competitive or regulated tourism contexts.

To get at this issue, we might consider how it is that tourism

contributes to the integration of the traditionalising community, at several levels. One of the mechanisms in which this integration is evident consists in how East Coulee's tourism agencies attempt to integrate their offerings with the tourism market. Marketing, even in East Coulee, is expensive. On their own (and in competition with the RTMP), neither the ECSM, ACMM, or GNSE can create a very large profile in tourism advertising venues³⁰. One solution to this has been to pool advertising resources. In the spring of 1995, East Coulee's tourism venues formed a marketing consortium, and engaged the tourism market as a "semiformal cooperative" (Smith 1996).

This association manifested in the production of a flyer that linked these venues thematically. In order to make this work, the consortium had to market "Historic East Coulee" rather than any single venue or program focus. In an effort to connect with provincial markets, this marketing consortium broadcast a totalizing assertion of what kind of place East Coulee is. In this case, the hamlet was cast as a place that is essentially "historic" in the nostalgic sense of the word. The reasoning behind this effort was guided by an appeal to the economy of optimization. By diversifying and totalizing East Coulee as a commodity, local agents hoped a visit to East Coulee would

30. The magic of making local materials "interesting" is most concretely established locally, during the interpretive event. It is very difficult for local advertisers to get schoolchildren in e.g. Edmonton so interested in coal mining that they would schedule a trip simply for the purpose of going to the ACMM. The case is however different for dinosaurs. In these terms, the economy of an association with GNSE, which does deal with fossils, is clear to venues like the ECSM.

be seen as both economical and effective.

This attempt to tap into broader markets was effected through a discursive attempt to rationalize East Coulee along nonlocal lines. The idea was to “tie into” another broader legitimacy. This produced the curious effect of a market strategy which appealed (discursively) to noneconomic motives³¹. In this case, this effect was researching and highlighting “fits” between East Coulee program offerings and provincial curriculum guidelines.

Although we are speaking of tourism, here in East Coulee we see multiple levels (and agendas) at which local representations of place are constructed. These are predicated alternately, in the creative negotiation of thematic linkages between venue offerings as diverse as coal, culture and the Cretaceous, and the (strategic) intertwining of this local innovation with external rationalities. This emerges out of a semi-cooperative effort. In this manner, the economic activity of the traditionalising community constitutes the hamlet as a functional tourism institution comparable to the RTMP.

31. This strategy caught my eye in reference to (Smith 1996:13): “... Here we have the rationality of one firm thoroughly penetrated by that of another.” This “interpenetration” is important in accounting for the general manifestation of tourism here. Much of the marketing logic and points of cooperation between East Coulee’s tourism consortium are tied to noneconomic factors, like the impulse to traditionalise. To continue with Smith’s discussion of this issue: “Place has been shown to be a crucial element in the bonding process ...by the explosion of the international economy and the destructive effects of deindustrialization upon old communities. When capital has moved on, the importance of place is clearly revealed.” (1989:242) In referring to East Coulee, I am trying to address the (contingent) reasons as to why this has happened. There is also the point that the flight of capital was not an entirely destructive event.

The marketing effort described above was initiated with some reference to the relationship of East Coulee to the RTMP. Within East Coulee, there was a growing sense of concern with the possibility of competition with the RTMP for schoolgroups. This anxiety was fed by the drive towards cost cutting and privatization by the Klein government. Under these conditions, the RTMP was forced to increase revenue, which entailed a more aggressive posture in relation to the local tourism market. In this sense, Premier Klein's rhetoric about moving government out of business had the curious effect of placing government institutions, like the RTMP, in the way of small tourism businesses as a competitor within the market. The quandary was summed up by one small business representative: "It's not fair that small private organizations have to compete with government funded institutions for private money."

Tourism operators in East Coulee are justified in their concern with the legitimacy and visibility of their market offerings relative to the RTMP. But in the end it has to be admitted East Coulee's success as a tourism economy could not have occurred without the establishment of the RTMP. In the same way East Coulee venues incorporated the legitimizing rationality of provincial school curricula in their program offerings, they also continue to draw upon the scientific credibility established in the region by the RTMP. This is particularly evident in the prominence of GNSE's "Adventures Programming" (see chapter five) in East Coulee's marketing consortium.

Through these “Adventures” programs, GNSE markets a “hands-on” version of the lab-observation experience that is exemplified at the RTMP³².

If we place this latter analysis back in the context of a touristic discourse on place we can see this discourse is not just about community identity in the abstract, but also about developmental trajectories, legitimacy, property and value. This discourse was predicated in how people associated with East Coulee responded to the collapse of the coal extraction frontier. In turn, there are ways in which this discourse recalls some of the structural foundation of that collapsed frontier. This reference is immediately evident in the innovation of East Coulee tourism out of the accessible infrastructure and space vacated by the coal mining regime. Yet there are still manifestations of this prior frontier in the living structure of the region and this is indexed in the oppositional elaboration of Tyrrell’s core by East Coulee communities.

In light of these dynamics, I would suggest the ability to assert a particular vision of place, in a compelling way (such as during tourism events) makes tourists important resources in the conduct of regional power alignments. The interpenetration of interpretive and brokerage processes at

32. Another point is the impact of the RTMP on the quality of tourists attracted to the region, and the expectations they bring. It is arguable that the RTMP’s relatively large advertising budget has a farther reach and stronger impact on the market. In this sense local small businesses are able to “tap” into this qualitative shift in tourist flow. I would argue that in addition to the resource availability present in East Coulee, GNSE has been rendered possible by virtue of these RTMP induced changes in the regional tourism market. The reason for this is that the people who conduct GNSE are fluent in the language and schemas of Earth science practice.

the RTMP establishes a powerful popular standard for articulating assertions of place in the Badlands region. This standard is at play in the development of tourism in East Coulee. It would be a mistake however, to take this argument too far and reduce the local production of tourism to an unveiled contest of power. The various communities and institutions discussed here have more in common with one another than might otherwise be the case. Although modernizers and traditionalisers stand opposed in structural terms as inversions of Tyrrell's structural core, they do nonetheless resort to a common stock (Tyrrell's structural core) in the articulation of their community projects. Tourism here holds out something compelling and interesting that owes its origin in a semi-autonomous way to a nonhuman landscape. My point in this latter regard is that there is something irreducibly legitimate about the touristic concern with the Badlands landscape. This is one of the reasons why this process is so attractive to other agendas and interests. Accordingly, the following chapter is an attempt to develop a sense of what this popular concern with the Badlands palaeoscape elaborates.

Chapter Four: Tourist Production of Badlands Landscapes

In chapter three I situated Badlands tourism in the context of a "discourse on place," a social response to the collapse of the regional extraction industry. In this setting, the recent institutionalization of interpretive practices in Badlands tourism assumes a relevant political dimension. In making interpretive claims about the 'really real' Badlands (taken as the palaeoscape), curators of the RTMP engage the Badlands in a way that establishes an authoritative standard in the assessment of place. Within tourism, science and its legitimacy is constituted as a kind of capital. This latter point is underscored by the recent proliferation of science venues within the region³³.

But what about tourists themselves? What role does their encounter with the Badlands landscape play in its social and cultural structuration? Is it possible to identify ways in which tourists contribute to the construction of the legitimacy, authority and rationality associated with the palaeoscape? In this section I return to the device of the journey to organize a series of accounts of tourists relations with the Badlands landscape. These descriptions relate tourist interaction with the Badlands landscape within three settings:

33. This play with authoritative means takes us back to (Smart and Smart 1998:12). There are various narratives and multiple mediums at play here. In spite of this heterogeneity, these different forms intersect in the Badlands landscape to constitute the generalized palaeoscape. In this regard, I am treating the palaeoscape as a landscape version of what Appadurai has referred to as "pasts" (1981a:202-216).

the campground, the Swinging Bridge and the Hoodoos Recreation Area. If in chapter three I suggested tourists function as a kind of authoritative resource (Sewell 1992:9) in the production of place, here I suggest tourist practice itself constitutes the Badlands landscape as a resource.

How do tourists contribute to the on-the-ground production of the deep past that is articulated in Badlands tourism? As an approach to this question, I am concentrating my attention upon tourist's primary encounter with the Badlands landscape. This primary contact is usually conducted in the form of hiking practice. Most of my involvement with Badlands tourists has been in this capacity, hiking, with groups. There are different kinds of groups that comprise the annual tourism population. Generally speaking though, two related groups do stand out. They are both organized around children, one being the family, the other the schoolgroup. In this thesis I will concentrate on the family.

The issue of family agency relative to the structuration of the landscape remains salient in terms of the structuration theory discussed in chapter two. This body of theory is transposable to the family unit to the extent that I can demonstrate the articulation of conventions and resources in their interaction with the Badlands. Specific questions about what these conventions and resources consist in and how they are articulated remain to be answered. If the accessibility of the Badlands helps account for the marketability of the Badlands as a tourism destination (see chapter 1), then

the moment at which this access occurs ought to be focal. What do tourists do with Badlands materials? The simple answer is that they engage in a process of palaeoscaping. Based on observations taken during the summer of 1996, I will generalize about one special form this process assumes by relating their practice to its embodiment, the inscription of Badlands topography.

The Tourist Path

The “tourist path” is a consequence of tourist engagement with the Badlands landscape, and is a useful point of entry into the question of tourist agency. I am referring to these paths as “tourist” paths, because they are found in touristic spaces and it is primarily tourists who make them. These paths are “worn” into the soft Badlands sediment by the repetitive movement of tourists along common (paths) over the Badlands surface. These paths are intensely structural in that they are forms inscribed into the Badlands surface. They are produced by normal processes of “dwelling” (Ingold 1993; Seamon and Mugerauer 1989; Heidegger 1972) as a Badlands palaeotourist, and I am, therefore, privileging them as interpretive keys into the issue of tourist agency.

Methodologically, tourist paths are attractive foci because their predicates are transposable (Sewell 1992:8-17). These predicates consist in what makes the paths possible in the first place: the place-specific intensification of public attention, activity and its simultaneous enclosure (compression). The path’s genesis is related to the form property takes in the national landscape, in

particular its distinction along public and private lines³⁴. In light of this, tourist paths are the product of how national space has been formatted, what tourists are doing while engaging the Badlands landscape, and the erosive potential of the Badlands soft sedimentary composition.

These relationships are at the basis of a concern with how tourists impact local (natural) resources. The RTMP's mandate to enforce the HRA (in terms of a surface/subsurface distinction) is a pragmatic consequence of the same predicates of the tourist paths. Many people move through the enclosed spaces of the recreation areas and within these containers the potential for fossil depletion is high³⁵. The predicates of our concern with impact - the direction of this activity to an enclosed space - refer both to the pragmatic basis of political economy and the expressive features of the paths themselves. In referring to this transposability, tourist paths loosely relate the

34. Interpreters are frequently asked: "where can we go? Are there any places we can just pull over on the side of the road and "go?" Here, through tourism, we encounter the earlier predicate of land enclosure. As noted in chapter two, this enclosure was effected in the Canadian west through surveying activity. J.B. Tyrrell was instrumental in this. There is a sense then in which the paths express a logic of enclosure, and as such are relevant to understanding the effects of enclosure in larger-order settings like the state.

35. As I have phrased it here, this point is slightly unfair. I am not aware of any significant official anxiety over the rate of surficial fossil depletion within the recreation areas. The RTMP is more overtly concerned about the illegal excavation of subsurface fossil resources. Generally, tourists are more anxious about the impact they have (e.g. Production of tourist paths) in the Badlands than might otherwise be necessary. All I'm doing in this chapter is treating these paths as records of a legitimate structuring presence in the landscape.

process of tourist dwelling to a broader habitus (Bourdieu 1977:83).

The transposability of the tourist path establishes its methodological validity, as an interpretive key into the production of the palaeoscape. Although they are a general and stable phenomenon throughout the valley, tourist paths do exhibit some contextual variation. In what follows I draw on both the commonalities and contrasts in path manifestations to sustain inferences about the nature of tourist agency in this region. I introduce the paths as they manifest in several recreational contexts: the campground, the "Swinging Bridge, and the Hoodoos. Contrasts between these manifestations as well as within particular settings constitute the grounds of my concluding analysis.

A Spatial Organization of Tourist Agency: The Campground

I begin with a description of the campground setting because this is a place dominated by my focal group, the domestic family unit. This description revolves around a spatial dualism articulated in the organization of family activity in relation to landscape contrasts (Figure 6). For my purposes I will refer to the two kinds of space described here as "domestic" and "recreational."

The domestic space of the campground begins where the provincial space of the asphalt highway ends. Turning off Dinosaur trail and into one of its campgrounds, the vehicle moves onto a gravel road, which forms a wide circle. The interior and exterior of this circle are divided into plots. These

plots are constituted as privatized domestic space as they are occupied by separate family units. Although this is a vacation context, this arrangement is strikingly similar to the organization of domestic space in suburban settings.

Accordingly, this privatized domestic space is formally landscaped, along suburban lines (levelled ground covered with a lawn). This central activity area is framed by Badlands hills. In this capacity, these hills encompass the site of domestic life. Despite the strength of this contrast, these hills are nonetheless constituted *within* the campground by their use for play by children. The Badlands form a recreational zone. In their relation to the encompassed suburban landscape, these surrounding hills substitute as a kind of "backyard space."

This substitution is evident in a separation of the domestic activities such as "cooking and sleeping" which are localised at the actual tent/vehicle location on the landscaped sod, and the "hiking/exploration/climbing types of play which occur in the surrounding hills. This focus on activity as a way of distinguishing the functionality of the campground landscape is complemented not only by the substantive divide between landscaped grass and late Cretaceous rock, but by the relative prominence of "paths" in the Badlands space, and the relative minimization of these same features in the domestic space.

Two observations are relevant here. The first is that the recreational

spaces are predominantly - though not exclusively - occupied by children. Secondly, there appear to be no property distinctions within this Badlands space. As a sort of structure the tourist path grows out of a relationship established between Badlands topography, the surface presented by late Cretaceous rock, and the play of children upon this surface.

These paths have an inverted branch shape, with the more diffuse aspect of the branches starting at the bottom of the hill, but becoming more focused near the top of the hill. That is, the paths became "path" towards the top. These are the main footpaths. Occasionally it was possible to observe detours from the 'core' interaction with these paths. During one of these innovations I watched as a father and his two sons (approximately 10 - 12 years old) attempted an alternate route up the hill. This appeared to result in some stress. Both the children appeared scared and unsure of their footing. The father was in the same situation, but worse. He was heavier than his children, wearing running shoes and at a significant disadvantage to his children on the incline (they were wearing their "hiking boots.")

Contrasts in the campground landscape, between the "natural" and "suburban" forms, support and reflect a broader association of political economy and the urban household. This homologous matrix exists in the relation of the privatized distinctions within domestic space and the sharing of the Badlands landscape - in play - that encircles the suburban. There is an analogy here between the landscape of the campground as it manifests *in*

family practice and the “normal” situation in which surficial familial space is generally privatized, whereas the subsurface - which, in the campground, is exposed in the form of late-Cretaceous sediment - is held in common.

Within the enclosure that is the campground, a spatialized political economy that is more generally lived out as an assumption, is tangible, *here, at the level of familial practice*. It is the children who most aggressively encounter this reversal in their movement to and from the domestic and recreational spaces, as they transgress the distinction in landscapes.

The predominant orientations reflected by the tourist path consist in a) the play of children, b) a concern with verticality (although the paths individuate towards the top of each hill, they also branch out amongst available hills) and c) the sharing of this space with other campers. In the next section I relate these orientations to the tourist production of a popular Badlands venue: the “Suspension Bridge.”

What is a Site? Swinging the Bridge

Having provided an initial description of the tourist path, I turn to the question of agency. What do I mean by this, and what does it have to do with the paths? To answer this question, I ask it in relation to a particular site, the Suspension Bridge in Rosedale. In formal terms, this infrastructure is a remnant of the Badlands industrial heritage. However, the relationship between the region’s coal mining history and the suspended bridge that swings is not necessarily apparent to parents and or children who frequent

this site. In this section I explore the tension between the formal definition, "Suspension Bridge" and the informal (though ubiquitous) tourist expression, the "Swinging Bridge." Are we dealing with a relatively minor lexical contrast here? In the context of tourist practice - the production of tourist paths - no. Following Rosaldo (1980:20-30) I will elaborate the practical context in which this lexical contrast occurs.

The entrance to the bridge is framed by a large sign, fixed to one of its two supporting trestles. This marker distinguishes the bridge as a remnant of the Star Mine, built so mineworkers residing south of the river could move to and from the mine site in the course of their workaday routines³⁶. Despite its prominence, tourists do not appear to pay too much attention to it or relic mineworks (defined as such). Adults did stop and read the sign. But more often than not they did not bother to relate its significance to their children. In a sense, parental attention to the sign served to distinguish adults from children, as if this were the point of the visit. It was as if the parents and children were somewhat tired of dealing with one another in a focused way. As the parents held back, the children ran ahead, on to the bridge. Parents

36. My usage of the term "site marker" is drawn from MacCannell's: "The Tourist: A New Theory of the Leisure Class" (1976). In this work, he refers to the marker variously, as an object: "The site marker is a piece of information about a sight..." (1976:41) and as a process: "The first stage of sight sacralization takes place when the sight is marked off from similar objects as worthy of preservation." (1976:44). One of the concerns I had when I first encountered this related to MacCannell's use of semiotics to over-determine the marker's designation of a site. This section is a partial response to this concern.

usually followed, but either did not attempt to catch up to the children or attempt to call them back. If parents were aware of the industrial significance of the Suspension Bridge, there is little to suggest - on site - that they attempted to communicate this to their children³⁷.

What aspects of the bridge do children foreground in their play with it? In formal terms, the bridge is a wire suspension structure that "hangs" above the Red Deer River. This provides some cause for vertigo, as normal spatial referents give way to distance between one's body and the river. In addition to this, the river is moving, and this is quite visible to anyone on the bridge. This produces a sense of dizziness, disorientation, and a "suspension," of normal spatial reference. Owing to its design features, (its suspension), the bridge is very unstable. Kids like to play with this instability. Once on the bridge, children (and some adults) begin jumping up and down, causing the bridge to vibrate, and in extreme cases, swing. Far from being a sort of meditation on regional infrastructural heritage, the encounter with the bridge foregrounds something much more carnivalesque.

In terms of these observations, what a venue or site "is" does not necessarily arise as a unilateral product of local industry producers. The

37. There are a number of issues here. What transpires in the family vehicle and how relevant is this to my analysis? There is evidence that significant pre-framing and sight postmortems occur in this insular space. Another point is that this industrial presence in the Badlands seems to manifest as a curiosity or "quirk" of the Badlands experience (to the tourists), judging from the kinds of questions and responses tourists elicit on the presence of relic mineworks.

official designation: "Suspension Bridge" casts the site as a celebration of infrastructure. Yet in practice this industrial significance remains either in the ambiguous background or unmentioned in observable tourist activity at the site.

There have been attempts by local operators, to "stabilize" this play with the bridge. Large signs forbid the swinging activity, and as a further measure, the site operators have backed up the message with further restraints. Recently, guy ropes have been attached to the structure. Yet tourist activity still reflects a rejection of these attempts to moderate activity at the site. It was not uncommon to see parents joining in or even contributing to the swinging activities indirectly: "When we were kids we could get it right over; that was before they added those wimpy ropes." This particular comment was addressed to children.

Beyond the bridge itself, there are large signs declaring the land north of the river to be private. Nonetheless, a series of well worn "tourist paths" lead from the far side of the bridge, past the signs, and up into the hills. Other signs warn of danger in these hills. This is, after all, an abandoned industrial site. During the period of their operation, each mine in the valley produced its own slag dump(s). These piles of waste coal have been smouldering ever since and they hold out the risk of injury to people walking on these piles. Relic mineworks still sit on the surface of the hill, and these can also be dangerous. Despite these warnings, the relic works, hills and slag pile all

exhibit “tourist wear.” These manifestations include a polishing of the timber from repeated attempts to climb the remnant structures, or tourist paths running up the hills and over the slag.

If this site is primarily about a public commemoration of the region’s industrial heritage, why does tourist impact occur in contravention of the site’s official markers and why do people not seem to engage the heritage significance of the site in their interaction with it? This example should begin to demonstrate the pitfalls inherent in drawing tourist typologies exclusively from official discourse. In terms of the relations established here between the site, the tourists and their impact, minimally, we can assume some tension or ambiguity exists between the official agency of the local “producer” and that of the tourist. I would like to suggest that the “Suspension Bridge” is more about play than about coal mining, at least in the way it is constructed during the process of tourist dwelling at the site. This play is enabled by the way the technology of the bridge reorients “normal” body-space referents, and this is what is foregrounded in visitors talk about and interaction with the sight.

What I will do in the next section is shift focus from these tourist/operator agency relations, to intra-tourist relations. Specifically, I describe relations between parents and children as they manifest in their interaction with Badlands topography. I will continue to describe these relations as they manifest in the production of the tourist path.

Framing the Hoodoos: Inside a Recreation Area

Initially at least, parents appear to direct their children's interaction with the Hoodoos more than any other site I have discussed. Part of this control is pragmatic: the parking lot and site are divided by a highway (Figure 7). Families tend to cross this feature as a group, aggregating within the parking lot, and embarking upon the site together. This site has been aggressively framed by the DRCDT, (in association with other regional tourism institutions) by working with the path itself. Small fences and signage direct the flow of foot traffic along a shale (coal slag) path directly to the base of the Hoodoo formations.

This formal walkway ends at the base of the Hoodoos where it widens to form a kind of contemplative space, as suggested by the small benches around its perimeter. From here the shale gives way to tourist paths that diverge and run up either side of the Hoodoos. The "natural wonder" of the Hoodoos is thereby placed front and slightly above centre, in a relationship with several sight markers. One of these was developed by the RTMP and suggests the Hoodoos distinction in the landscape is a consequence of long-term natural processes. Other signage appeals to tourists sense of a natural heritage in an effort to minimize anthropomorphic erosion of the Hoodoos.

This latter concern is shared by local community members, tourists, and industry officials alike. The sentiment that the Hoodoos are not today what they were fifteen or twenty years ago prevails. In contrast to interaction

at the Swinging Bridge, there is an expectation of conformity to these controls. This is indexed in the apparent embarrassment of parents whose children ignore the site markers and proceed to sit or run on the Hoodoos. Their reproaches take on a “pinched” tone, at times being more stern than the situation would seem to require. I also observed situations in which other adults monitored and corrected the behaviour of other people’s children, even in spite of the presence of the children’s parent(s).

Despite these constraints, and the explicit attempts to enforce them, people still “sat” on the Hoodoos. The distinction is somewhat categorical. There was an expectation that people should stay off the Hoodoos, but in practice families still had their children pose for photos on them. There was an official air about this activity, and without the aid of any sort of explicit directive, a space at the base of the Hoodoos seemed “set off” from the rest of the site for the official photo (Figure 7). This tendency was strong enough that there would often be a loose lineup of families waiting for their turn.

The officiality of the photo session carried over into the formally inappropriate activity of sitting on the Hoodoos. This created a sense of ambiguity around the issue of the legitimacy of being on the Hoodoos. This ambiguity made it difficult, in general, for tourists to “police” themselves in regard to the issue of impact on the site’s main attraction. Throughout the tourism season, the amount of activity around the Hoodoos is high. It is congested here, and somewhat chaotic, as parents call out to children who are

more interested in running up the hill than waiting their turn in the Hoodoos spotlight. All this contributed to a sense of tension associated with the contingency of control, here, at the base of the Hoodoos.

Moving up the hill from this point, the initial integrity of the family unit (taken as a primary example) begins to break down. We are still relatively low in the Badlands, and the hills are not yet extremely steep (Figure 7, Lower level). The tourist paths demarcate a wide basin-like arena within which people disperse throughout the landscape. At this level a separation between parents and children predominates. Younger children move out horizontally, trying their hand at navigating and exploring the lower hills. Some parents follow, but usually take up a seat somewhere and watch their children, other children, or other parents.

Slightly up the hill from this the tourist paths begin to narrow (Figure 7, level 1). The only children on it are in transit, either up or down the hill (vertical movement). Yet there is also a stationary crowd at this juncture. They are adults, primarily parents. These adults share a postural tension; they stand as if they are waiting, all looking - somewhat anxiously - up the hill. If you follow their gazes up the hill (following Little, (1991), you see the tourist paths begin to individuate into three arterial branches (Figure 7, levels 2 and 3), each very well worn into the hill. These three paths navigate the steepest part of the Badlands surface and lead to the horizontal Prairie surface (Figure 7, level 3).

It is the older children who head up these steeper paths (levels 2 and 3). Who and how they actually get to undertake this challenge is relevant here. Some children head “up the hill” with the obvious consent of their parents. There is usually a warning to “be careful,” and off they go. From here the parent joins the crowd of anxious onlookers (level 1). Yet there is another group of children who do or do not make it up the hill. This ambiguity is appropriate here because it distinguishes this group. These are either younger or less competent children who face several challenges (levels 1 and 2).

The first challenge is the child’s own confidence. This estimation is related to the child’s relative skill in climbing, and the degree to which they are disoriented by the hill’s verticality. In addition to the technical challenge, there is the issue of *the parent’s* estimation of whether or not the child will be safe climbing the hill. This concern with safety is the main reason the (level 1) gaggle of adults stands out: they are worried. These concerned parents may intervene if they see a younger child moving towards one of the more vertical paths.

Inevitably, some children do (and others do not) manage to bridge these barriers (Parent/Verticality/Self) to movement up the paths. Those who are able to navigate these barriers are exercising and expressing a relatively autonomous agency. Some of these success stories get through the “parent filter” by pretending not to hear or notice the parent calling them down. By the time a child has decided to ascend one of the paths, there is

already a considerable distance between the child and the parent (level 2 and 3). It is not unusual for several parents to be calling out at once. This confusion sustains a kind of categorical "out" for the child "But I thought you were someone else's mom... ." It is not difficult for an intent child to begin climbing in spite of parents orders, if they so desire.

Verticality is an errant child's ally in getting past the parent filter. In relation to what they are up to here, it might be said verticality both enables and constrains the outcomes. The youths are quicker, more agile, and are generally better climbers than either the adults or their younger siblings. The occasional adult that does decide to "go get" a child up the hill is taking a risk. If the child has made it onto the main vertical, the parent's own lack of climbing competence may become visible, that is, public. This has the dual effect of discouraging adult ascent (due to the potential for embarrassment), and intensifying their concern for the child's safety. This intensification can be seen as parents begin to panic once their own ascent has been thwarted. Their initial attempt takes on a desperate tone, and this is intensified as occasionally one of these parents starts "freaking out." It is an open question as to how much of this display is tied to the child's situation on the hill, and the related point that the parent is losing control of their child in a public context. When these events occurred, they became a primary spectacle. Tourists are watching each other here, and any pretences to the contrary are dropped as one parent begins to call attention by "freaking out."

There are the odd parents who do manage to make it up the hill. Others do at times encounter difficulty. During one visit I watched as a couple of boys (approximately 10-12 years old) got 'stuck' on the vertical. A father broke out of the anxious gaggle to attempt a rescue. A few moments later the father was stuck, and the children were on their way down the hill. The irony of this was not lost on the crowd, people began cracking jokes about this reversal.

The most intense, unidirectional and vertical paths are the ones that receive the most attention, but relatively few people get to contribute to their making (level 3). In contrast to the "noise" and chaos of the lowest part of the hill, around the Hoodoos, where children and adults are a heterogenous group, there is a very tangible sense of separation established as the children who have made it up the hill reach the horizontal plane of the Prairie. Their (somewhat belligerent) voices can no longer be heard. When they are heard, their voices are individuated and articulate, calling down to those below, siblings, friends or parents. Within the group of adults positioned immediately below the vertical, there is a similar aural distinction; as noted, jokes were being shared generally within the group of adults. This homogeneity would not have been possible lower, within the chaos of the Hoodoos.

If we trace the touristic production of the paths from the vehicle to the peak of the hill, we see a basic polarization from individuated family units at

the bottom of the valley to individuated children at the Prairie level. But this settling out occurs through the establishment of other contrasts that develop in relation to the paths. One of these is evident in tensions between the anxious gaggle of parents, and the youth attempting the vertical. In terms of all this, the relevance of the Hoodoos is not diminished. In fact, the development of these contrasts situates them as a focal point within the site around which these polarizations seem to emerge.

The climbing episodes end after the children have achieved their objective. At times they come down on their own, at others parents tell the children they are leaving, and begin their descent. In general, the unit remains dissociated until they return to the highway where a re-aggregation occurs and they cross the road to their private vehicles.

The specific aspect of intra-tourist interaction I have emphasized in this example is that between parent and child. A secondary set of relations might be described between parents and parents, or children and children. These manifest "covertly" as in the occasional "glare," or illicit comment about the "freaking out" parent. What is so significant about the relationships between parents and children here, as at the Swinging Bridge, is in the relative play of authority relations as these are reflected and refracted through interaction with the site materials, and how these relations in turn contribute to the formation of the site structure itself. It is time now to deal with the question of why authority relations are salient in these settings.

An Analysis: Paths in Search of Projects

I have described tourist paths as they manifest in several settings along "Dinosaur Trail." This (tourism defined) highway system is a sort of macro "path" linking the various contexts, venues, sites places and events that constitute Badlands tourism as a regional phenomenon. Before parsing out generalisations about tourism via the tourist path, I want to develop a theoretical focus upon the significance of grounded spatial/temporal practices in Badlands tourism. I will develop this sensitivity through a brief analysis of the tourist path in its Hoodoos setting.

I have titled this section "Paths in Search of Projects" because there is an interplay between these two kinds of things at the Hoodoos. I have already given an operational definition of the tourist path, and at other points I have talked about "agendas." For the moment, I want to step back from these operational definitions and look at the "path" from a theoretical point of view. I am doing the same thing with the "agenda," but to maintain some theoretical consistency, I am, for the moment, going to recast this notion as "project," loosely, for the way these devices - path and project - are related in the 1990 work of Alan Pred.

Since each of the actions and events consecutively making up the existence of [social action] has both temporal and spatial attributes, time-geography allows one to conceptualize or diagram the biography of a person at daily or lengthier scales of observation as an unbroken, continuous *path* through time-space subject to various types of constraints. In time-geographic terms, *a project* consists of the entire sequence of simple or goal-oriented behaviour.[emphasis in original]" (Pred 1990:49)

Pred develops this sense of the relations between “paths” and “projects” in a dialogue with the geographic concern to theorize ways in which space-time are articulated in practice (Hagerstrand 1982). My emphasis on this kind of theory is very much tied to the observation that tourism is a kind of journeying practice, and is itself predicated in this play with the relations of space and time (Fabian 1983). It follows that these dynamics should be important to an analysis of tourism. Given the discursive attention paid to these matters in palaeotourism (the articulation of space, materiality and temporality), I feel doubly justified in this kind of attention.

One important aspect of Pred’s characterization lies in its sensitivity to the continuity, and thereby integrating, qualities of movement in space and time. This integrative dynamic is central to the development of this thesis. In order to integrate the various interpretive slices I have cut through the Badlands tourism phenomenon, I have resorted to the device of the journey. This literary device is consistent with my object of study since this is, in effect, what tourists are doing as well. From a locale of origin to the destination and back again, bodily movement both predicates and transgresses distances and integrates contexts of action and experience. This dynamic is apparent along Dinosaur trail which is on the one hand about distance, and on the other about composing (that is, integrating) a visit by transgressing this same distance. In the tourist’s movement from campground to museum to site, there is an integration of disparate contexts by way of familial navigation.

This is apparent also at the Hoodoos. There is a direction, trajectory, or sense of organization in how tourists encounter this site, and this is related dialectically by the paths, to tourist activity³⁸. How does this movement contribute to the formation of integrating structures at the site? What is there to integrate here? My answer is that there are various projects distinguished and related at this sight. This is to take advantage of the point that there is a kind of collective intentionality expressed by the existence of these paths. The implicit nature of this intentionality begs the question: what are the projects these paths address?

What are families doing at the Hoodoos? First, they are encountering an official or institutional agenda; expressed in the presence and form of the engineered paths sponsored by the DRCDT. I refer to this as a dominant institutional project (Pred 1990:50), and describe it as such because there are a number of assertions objectified in this presence. In the association of the Chamber project with the RTMP, the Hoodoos exist as a natural wonder, something special, rare, and above all, threatened by the proximity of human activity. Out of this paradox, we have the legitimation of the regulatory

38. I am thinking here of linkages between Bourdieu, Pred and Berger and Luckmann. Each of these theorists speaks of a related dialectic: of objectification and embodiment (Bourdieu,1977:87-95), or "external-internal" (Pred,1990:50) or between objective and subjective realities Berger and Luckmann, (199:207-211). When you step out of your vehicle, one of the distinctive features of the hill is the tourist paths. There is a motivational quality about these, in these sense that they play a role in the direction of perception into the hill. But this same moment perpetuates the embodiment or objectification of the paths, in structural terms.

project articulated via the RTMP's presence in the valley, a macro agenda or project that everyone seems to agree is at once "on the table" and necessary.

But if this were all there were to the story, I would have been able to finish my description of the tourist paths at the feature that is foregrounded by the official project, the Hoodoos themselves. But it is precisely at these features, at this focal point, that the paths are transformed. Beyond the Hoodoos they are no longer discursively engineered. And it is apparent that a different agency, or project, is expressed by people's movements. So the Hoodoos form a midpoint between two types of paths, embodying at least two different projects. What remains is to elucidate the "other" project, and in doing so answer the earlier question of what is being integrated by tourist movement here.

This "other" project is a familial one, and an operational awareness of this is expressed in the widespread emphasis on children in palaeotourism. And it should be evident from my prior description that the activity and performance of children - in relation to adults - is foregrounded in the production of the more vertical paths. Despite this operational awareness, I have had to do a great deal of work to bring the focus to bear on this "kinship" project. Part of the reason for this difficulty lies in the notion of the "dominant institutional project."

Dominant institutional projects are associated with the most important power relations within a given place, and they are usually, but not always, identical with the operation of a locally significant mode of production. By definition, they account for the most significant

path-project intersections that occur as part of the unfolding of structuring processes in that place. (Pred 1990:50)

The tourist path embodies multiple projects. As we have seen, these paths are produced in relation to a sort of tension with “official” definitions, institutions and projects. That is, the institution that is actively invested in defining Badlands tourism is most authoritatively embodied as the RTMP. In the way it is defined above, the notion of the dominant institutional project helps us conceptualize the linkages and correspondences of Badlands tourism. It helps explain, for example, the commonsense behind the sentiment of ownership (or at least patronage) of the Hoodoos expressed by major regional tourism institutions in their regulation of interaction with the sight and its significance. If the natural past is taken as an *insitu* production here, wouldn't their identification with these productive institutions make sense?

But is it realistic, given the variations described in the paths, to speak of “a” dominant institutional project (defined as the scientific production of the past)? To do so would be to assume the production of “natural wonders” like hoodoos, fossils or the past is a kind of transcendent process. This kind of positivism would be relevant if were not contradicted by the presence of multiple “institutional projects” being embodied in how tourist interaction with Badlands materials is structured. It is misleading in the sense that it might be tension between various institutional projects, the family and tourism “operators” that produces tourism landscapes in the Badlands.

At the Hoodoos we see kinship units - individuated in their vehicles - embark across various thresholds to interact with the Badlands surface, but always in terms of various institutional projects. At the bottom of the hill, the institutional alignment of the DRCDT with the RTMP predominates. As we move up the hill - and note a corresponding change in the structure of the path - another institutional project becomes dominant. This latter project is salient in changes in the relationships of parents and their children and parents to parents and children to children as they are distributed along the paths. The key is that all of these realignments index one another, by virtue of how people relate to the hill.

In relation to the settings described above, I have advanced the suggestion that tourist paths are material embodiments of children's agendas. These agendas relate to the tension between childhood autonomy and relative dependence (pun intended). The Badlands landscape in its vertical manifestation, is constituted in an indexical play, out of which a child's sense of self is publicly expressed and developed (for better or worse). The vertical tendency of these paths expresses not so much some sort of *a priori* schema (hill=climb) but improvisation with materials and motives at hand (which I am of course inferring). Out of this expression of practical competence (realized in parental inability as much as children's proficiency at climbing), a principle relevant to the *insitu* constitution of Badlands materials as indexical resources is made available in a public setting.

Chapter Five: The Interpretive event

This chapter is developed with reference to a touristic event that is organized around the theme of an "Adventure in Palaeontology." I first develop some generalizations out of the Hoodoos data and relate these to tourist agency in the production of an indexical landscape. I account for the suggestion that tourist activity constitutes the Badlands landscape as a "located" and transposable resource. Finally, I demonstrate how the realization of an objective in the landscape, the *insitu* fossil, is a feat contingent on the guided interplay of multiple indexical frameworks.

Making Biographies\Indexing Badlands

In chapter four, analysis hinged on the pivotal role of the Hoodoos - a landscape feature - in the distinction of explicit and implicit projects in the touristic structuration of the Badlands landscape. Tourist activity contributes to the distinction of Hoodoos as remarkable features by animating the context afforded by official and unofficial paths, taken as markers. In their interaction with sight materials, tourists relate the Hoodoos to their own personal and familial agendas and a mutually productive relationship is established between the two³⁹. This reflexivity consists in the use of the Hoodoos to mark

39. The role of tourism in the development of the family life cycle has been treated in the work of (Rapoport, 1975) and (Moore, 1995). I have introduced a slight variation on this theme by reframing the "cycle" as a generalized process of biography formation. This latter characterization helps me avoid the determinant assertion that what is going on here is in some way a response to a functional prerequisite.

family biography. In turn, this indexical usage suggests the distinction of the Hoodoos (their construction as significant markers) is a process salient within the language of personhood, as articulated in relation to children, families and landscapes in the context of modernity.

What do I mean by biography formation and how, specifically, does this relate to the constitution of Badlands as indexical resources? When I speak of biography formation I am referring to a conventional process out of which personhood (Harris 1989) is constructed. This convention consists in a progressive distinction of the self (as an individual) from a parent-defined family unit⁴⁰. In the same way we come to recognize "individual" states by virtue of a historical "heritage," here, we come to recognize others and ourselves as individuals by measuring progress along development trajectories. The relevance of the Hoodoos consists in their utility in indexing (and thereby constituting) significant moments in this developmental process.

This process of individuation (Abrams 1982:299) is marked in relation to a distinction between the self-as-individual and self-as-family-member. These definitions of the family and the individual mutually imply one

40. This works quite nicely with the other social vehicle through which, often, the same children come to interact with the Hoodoos: with their school groups. In this case the separation of the self from the family is recast in terms of position within a "graded" peer group. The point that the child encounters the palaeoscape through both these modes, the school field trip and the family vacation, is relevant.

another. This implicature manifests in various productions, such as those witnessed at the Hoodoos. Here a generalized process of biography formation is developed in a very public way. That is, its meaningful development is predicated in the establishment of a set of relations, by first distinguishing then relating to, the Hoodoos. To get at the specifics of how this actually happens, I return to the description of the photo session at the base of the Hoodoos (Figure 7).

During this session, the family assembles at the base of the Hoodoos, where their photo is taken. The distinction between “taking a snapshot” and “portraiture” is relevant to a sense of how this episode unfolds. In contrast to the more generalized, quick, casual photos that do take place at this sight, the family session at the base of the Hoodoos includes more attention to composition and framing than normal.

This portraiture session has a number of immediate consequences. First, it distinguishes the family unit from other families, also engaged in a similar process of distinction. The actual activity of separating from the general tourist crowd and taking the time and space required to compose the family as a unit at the base of the Hoodoos does have the effect of distinguishing the family relative to the Hoodoos as well as the general milieu. The photo session also totalizes and objectifies this episode of distinction as a generalizable Kodak ® moment.

The conventional nature of these dynamics is remarkable. A few miles

down the road, out of the view of the Hoodoos proper, it is possible to relocate precisely these same relationships, of families totalized in an iconic relationship to the Hoodoos. The archives and hallway of the ECSM exhibits historic photos of families posing at the Hoodoos. There is an intergenerational component to this activity, which suggests the Hoodoos photo is part of a much broader set of conventions than are immediately apparent.

What is entailed by this conventionalization, and its “capture” in the photo? There is an indexical quality to these dynamics, and I will develop a sensitivity to this through the work of Alfred Gell on the practical logic of navigation (1985). Gell argues successful navigation relies on the existence of two kinds of indices: the token-index and the non-token index. These two kinds of indices contrast at the level of epistemology, or in the basis of their truth conditions (1985:279).

Gell compares token-indexical statements to egocentric images. In these cases, the perceptual statement “Ah, here we are at the Hoodoos” is true if “we” are a) together and b) situated in proximity to the Hoodoos. Perceptual statements about the relation of the family to the Hoodoos while in the Hoodoos Recreation Area are of the token-indexical kind.

But if we made the same statement, “Ah, here we are at the Hoodoos” while in East Coulee, the same statement would be false. This is a non-token indexical statement. It can be false, unless uttered in reference to a non-token

index, such as a photo. Non-token indexical statements have a maplike quality (you do not have to be in a practical relationship to the object to make sound referential statements about it). I am suggesting the family photo album can be treated as a compendium of non-token indexes. We can treat these as maps referencing the biographical development of families and individuals.

Gell makes the point that any functional system of navigation is predicated in both kinds of indexicality (1985:279). The possibility of a non-token indexical statement (or compendium of such statements) is contingent on the prior production (and capture) of a token indexical moment. It follows that biographic processes are partially dependent upon travel as a way of generating the token indexical truth conditions upon which the validity of the broader biography (taken in its non-token or maplike form) rests.

In chapter four I concluded with reference to the presence of children's projects at the Hoodoos. This project is achieved through their individuation at the top of the hill. In this moment, the "King of the Castle" achieves a kind of distinction (Bourdieu 1984:295) by expressing a practical mastery of the landscape. This moment occurs at the meeting of the central landscape contradiction identified in chapter one - the meeting of the horizontal Prairie and vertical Badlands - the point around which the entire set of homologies (Figure 1) is organised.

There are at least two significant moments of totalization occurring within the Hoodoos Recreation Area, each with landscape referents, all related to a conventional play with processes of biography formation. However, only one of these moments takes on a non-token indexical (or transposable) form, by virtue of the formal family photograph. This latter moment is also the one most aggressively claimed by regional institutional projects, as embodied by the DRCDT and the RTMP.

In consideration of these indexical moments, it is important to note we are not talking about the production of a homogenous resolution to the tourism experience. Instead, it is possible to take the general Hoodoos visit as a polarizing event (distinction of children as individuals from families) relative to the landscape, though as I have noted, only one of these becomes contextualized in a discursive way. What I am going to do now is look at an instance in which these various agendas, projects and moments are (ideally) articulated. This instance resides in a guided hike with the objective of locating a late Cretaceous fossil.

The Guided Path

Badlands tourism cannot be reduced to the unilateral activity of tourism “producers.” Neither can it be reduced to the unilateral structuration processes of tourists. In tourism these various agencies interact, and an analysis of this interaction is as relevant as an analysis of specific agencies. At the RTMP, the staff of Midland Provincial Park host scheduled walking tours

through the Badlands landscape. The paths that result in these formats have a different manifestation than those produced in the recreation areas. These paths direct and reflect encounters that are by definition “guided.” The Adventures in Palaeontology program delivered by GNSE is also a “guided” format. Here the object of hiking practice is held out as the realization of an *insitu* fossil.

In chapter four I described paths worn into the hill by quantities of tourists. This is what guided paths are, with the exception that guided productions are “explicitly brokered,” in relation to an explicit goal. In this case the brokerage is through the inclusion of a third party, which is involved for the express purposes of regulating and facilitating this explicit, goal-oriented encounter with Badlands materials. This is the “interpreter,” who is also the broker referred to in the introduction. Here, I am directing attention to how hiking practice is reorganized from the recreational to the guided context. The point of this attention will emerge in how this reorganization elaborates the hike as a form of locational - that is, prospecting - practice. This elaboration consists in the processes by which a discursive context is created out of a generalized Badlands landscape. These processes are motivated by the object-orientation of the group.

Initial evidence that the inclusion of a guide in the Badlands hike entails a different kind of experience comes in the structure of the tourist path itself. If in the recreational context tourist paths are marked for their

verticality, in the guided contexts they come to include a more generalized, horizontal orientation (Table 4). If, in the recreational context, the paths are predominantly unidirectional, in the guided context they assume a “zigzag,” circular appearance (Figure 9). In these terms we find the presence of an explicit (public though not necessarily heterogenous) objective associated with hiking results in a convoluted path, whereas the absence of the same (as in the recreation area) results in a “straightforward” one. Any further discussion of the interpretive significance of these paths should attempt to account for this variation.

Type:	Standard Path	Guided Path
Context:	Recreation Area	Program
Orientation:	Vertical	Meandering
	Open	Closed
	Linear	Circular
Objective:	Implicit	Explicit

Table 4: General Contrasts in Tourist Paths

The Return of the Agenda

I begin by accounting for the variation in the shift to the guided hike (and thereby offering an interpretation of the genre) by returning to the issue of the agenda. I do this through attention to promotional material GNSE uses to sell an “Adventure in Palaeontology.” In doing this, I am borrowing an interpretive methodology developed and utilized by Groundwork itself in the reproduction of their program from year to year. My use of this

informant methodology is intended to foreground the point that the production of an encounter with the past is contingent on the development of the interpreter's ability to "interpret" the group, along certain lines.

So what then, is being promised? We can begin to answer this with reference to the description of the program offered in a brochure setting (Figure 10). In this case, an "Adventure in Palaeontology" is distinguished into its main constituents, the "Fossil Lab" and Badlands Hike. Each component is 1.5 to 2 hours long and, taken together, compose a four hour event⁴¹. If we assume that in a competitive marketing context special emphasis is placed on opening statements in the negotiation of the product (and in this case, this is a good assumption), the opening lines of these marketing statements are important. The primary line describing the indoor lab component invites the reader to: "Learn the laboratory techniques of a palaeontologist" (Figure 10a). The primary line referencing the hike offers a chance to "Explore the Badlands the way a palaeontologist does" (Figure 10b). If we move from these written statements to Figures 11a and 11b, we see the same message being sent, but through a graphic medium. If in the first case the invitation is extended to children via an adult intermediary, in the second

41. The brochure data I have compiled here is drawn from a variety of sources. It has a "palimpsest-like" quality. The market contact tourists have with the Adventures program is varied, some learn about the program from brochures tailored to school groups. In some cases, the prior year's promotional material is still in circulation. That said, has been a great deal of consistency, historically, in the means and messages sent by GNSE to its conceived public in the way of promotional material.

(graphic) case there is the possibility of a direct invitation to children.

We can account for the deployment of multiple mediums (i.e. writing and graphics) to elaborate the same message by arguing children have some agency in the marketing negotiation⁴². However, to the benefit of all, movement from the written invitation to the graphic elaborates a non-discursive dimension of the brochure that is comparably undeveloped in grammatical form. The image articulates what otherwise remains a non-discursive grammatical assumption. I am suggesting what is articulated in this latter case more adequately describes the market promise than does the text alone.

In Figure 11a, two figures sit together, focussed on something obscured by topography. This iconic moment is foregrounded against the (stratified) Badlands landscape. This context-object totality then provides a background against which a set of tools are in turn foregrounded; the technical means of palaeontology are situated as a primary offering. The same is true of the image depicting the lab context (Figure 11b). In this image, the setting of fossils in an ordered display space replaces stratified Badlands as a meta-context. In relation to this, we have again a pair, this time clearly children, sharing a focus on something we the observers can't quite visualize. As with the earlier image, tools are situated within our focus. My analytic

42. My treatment of the issue in terms of the use of multiple mediums to say the same thing has taken some direction from Tambiah (1985).

concern here relates to how these foregrounding effects are articulated. This articulation is achieved as *relationships* between a) people and an indexical background, b) people and people, c) people and a mystery, and c) a technical process frame one another in a totalizing moment (the glance in which we “read” the graphic).

This non-discursive element in the graphic does not diminish the significance of the text. In its interaction with the image, it completes our qualification of the technical process that is referenced with the tools. We are talking about palaeontological labour which is not, in itself, without contradiction. There are “variants” of palaeontology in the region, a point which emerges quite clearly in the contrast between the curiosity cabinet (Hooper-Greenhill 1992:79) presentation of the discipline at the “Fossil Museum” in downtown Drumheller and the stratigraphic indexing of the same materials at the RTMP. It is relevant that GNSE “locates” itself geographically with reference to the RTMP (Figure 8); we might ask why it doesn’t do so with reference to the Fossil Museum (chapter three). GNSE is also interested in defining their palaeontological practice in terms of the legitimacy associated with the RTMP (taken as its indexical framework), in contrast to that of the Fossil Museum (but while maintaining some distinctive autonomy from the RTMP by associating themselves with the ECSM, locally).

One of the major points of contrast between the RTMP and the version

of regional palaeontology that preceded it lies in the clarity with which the RTMP develops the romantic and enlightenment duality in reference to the palaeontological process. This same duality emerges quite clearly in the structure of an Adventure in Palaeontology, specifically in the co-presence of “Adventure” and “Education” in the division of the hike and lab components. A qualitative as well as proximal relationship between GNSE and the RTMP as palaeontological enterprises is thereby established.

This helps us interpret the triplets; (Figure 11b) “Explore, Discover, Empower” and “It’s Real It’s Fun It’s Real Fun” (Figure 11a) with reference to the work of specialists as exemplified in the outdoor excavation practices and indoor fine preparation work conducted by the RTMP. At the RTMP tourists access these phenomena (primarily) visually (chapter three). In its market offerings, GNSE offers tourists an opportunity to “participate” in the process. “Hands-On,” is stated in other GNSE promotional material, as is “Come Get Your Hands Dirty With Us.” With this shift in tourist’s sensual and practical relationship to the processes of local past production, we might argue empowerment refers to the playful inclusion of people (children and adults) in the labour process by which the past is most authoritatively produced in the Badlands context. This moves the tourist from an observational to a subject-oriented perspective from within the labour process. This shift is articulated in the interaction of the graphics, statements, locational and

structural features of GNSE's presence in regional advertising⁴³.

What is being sold here is a playful offer of employment in the local process of palaeoscaping. As I have tried to establish though, this offer has a specific character, and it is in the quality of this character that we can tease out some of the agendas and/or projects implicated in this marketing effort. The offering has been modelled in some relation to the RTMP taken as a dominant institutional project. In these terms, the agendas that intersect here relate to GNSE's interest in presenting themselves as a "player" in the scientific representation of the region; for marketing and local purposes; the child's interest in distinguishing themselves with reference to a growing biographical repertoire, the parent's interest in contributing to their childrens' biographical development (in a way that also contributes to their own); and the RTMP's interest in establishing conventions in the relationship locals and tourists have to fossil significance⁴⁴.

Yet the agendas are not all naturally dovetailed as in the above

43. This is not just a matter of access to materials, but also the procedures that constitute them as meaningful resources (in terms of palaeotourism, that is). GNSE promises, in its promotion, a play with what in chapter three was referenced as an example of Goffman's "backstage" (Goffman 1959).

44. Why is a visit to dinosaur land relevant to the analysis of biography formation? Symbolic capital for children? I might hypothesize that children are less interested in dinosaurs because of some sort of phallic identification with their bodies (e.g. Peck (1989:23) than they are interested in how they are empowered by their association with the formal discipline of palaeontology. I think Dr. Phil Currie has articulated this in the use of his toy dinosaur collection to construct his own public biography.

description. If we recall, from chapter three there is some tension between the RTMP and other local tourism producers, like GNSE. There is tension in GNSE's relation to regional development. There is a tension between the child's projects and that of the parents. What is promised in the interpretive event is the smooth articulation of these agendas. This ties the success of the interpretive event to not only the interpretation of the hill, but also an ability to "read the group."

Locating the Late-Cretaceous

One of the points I have been developing from the outset of this thesis is that the straightforward assertion "we came here to find fossils," is amenable to some unpacking. This means that the sense this makes is not entirely present in the statement itself. There are multiple conventions for "finding" fossils in the Badlands and the direction of this popular locational activity to "interpretive agencies" recalls these. Furthermore, the process of actually producing a conventional token indexical relationship between a group, like a family, and an equally conventional landscape manifestation is difficult. This is a navigational feat, one that is also a social production. The objective is to produce special - but nonetheless real - relationships, between people and "things." Gell argues there is a uniform logical basis for all systems of navigation (1985). This might be true, but what I suggest here is that the production of the transposable token-indexical moment is contingent upon a relative social event.

Here is the difficulty. Fossils might have an existence prior to human realization, but the point of this exercise *is* human realization. In these terms, the challenge is evident in the difficulty we encounter in getting people to see them, in light of particular conventions. Left to their own devices, children tend to “blast” up hills. I have elaborated this point in reference to the vertical tourist paths. In navigating the Badlands, children/tourists do manage to find fossils. But these generally are not the kind of fossils through which a *universal* past can be read (they might be found, but not *located*). Interpreters spend a great deal of time and energy dealing with mute “rocks,” “Is this one?” “Nope... That’s one of nature’s practical jokes.” Or, “Oh look, I found a fossil gun!!”

The program is about finding fossils in a certain way, one that resolves the tension between multiple agendas within and between the family and the interpreter (as a GNSE employee). This also entails addressing concerns specific to GNSE as a community member in the hamlet of East Coulee, and as a player in the regional tourism market. This means the successful fossil find is somewhat contingent on the facilitation of a successful social production that addresses contextual concerns (e.g. a local discourse on place) in addition to the explicit ones. This recalls the relevance of the conventional nature of the object. A visit to the Badlands might be about finding fossils, but the point is that the fossils here are “really real.” This is where something putatively stable and enduring, beyond the appearances of the everyday and

normal, is exemplified. In specific terms, we are referred here to the kind of fossils that enable discursive forays into the universal past (something that is idealized as a *common* heritage), largely because of how the landscape is constituted in touristic practice. The key of course is that as palaeotourism, this practice is oriented via a partial relationship with Tyrrell's structural core.

The exemplification of the palaeontological objective at the RTMP, is tied to the notion of the *insitu* fossil. Our ability to "know" the past by virtue of landscape readings is tied to the capacity (and desire) to distinguish a relationship in that landscape. In this case, the *insitu* fossil is one that is "located" in "its" context. Legitimate fossils reflect and refract "past" by virtue of our ability to distinguish a possessive relationship between an object, taken as a fossil, and its context, taken as the stratigraphic setting in which it is embedded (see Appendix B, P5 and P6 for a child's representation of this convention). But how do we know what a possessive context consists in?

This is why guided hikes meander. *With* the family, the guide is elaborating a set of contextual frameworks which ideally converge in the realization of the object (which is being set up as a relationship). Some of these frameworks (like the biographical) have already been elaborated in my (chapter 4) discussion of the Hoodoos recreation area. Other frameworks, such as the stratigraphic, originate not with the family, but the specialized practice of resource prospectors and surveyors: palaeontologists.

In the course of a guided hike, the indexical quality of the Badlands

stratigraphic profile is developed as the guide cultivates a group sensitivity to the qualitative development of distinctive horizontal landscape features. In the course of the hike (which also consists in vertical movement), the landscape is both distinguished and integrated but with specific attention to the stratigraphic nature of this development.

So, the guided hike consists in attention to the frameworks by which significance is established between *this* group and the landscape. It is crucial to note that this is not about establishing a new set of abilities, but about transforming what are already functioning modes of interpretation; interpreters already know where and in what resources “practical jokes” will manifest⁴⁵. This means an Adventure in Palaeontology is itself conventional, but in the sense of being a formalized way of transforming how people develop a sense of the Badlands as an indexical locality. As noted at the outset of this chapter, tourists are already indexing the Badlands landscape through a process of biography formation. Interpreters recognize, conscript and borrow this dynamic to help achieve the vertical integration that both predicates and resolves the hiking exercise.

At times the children’s interest in “blasting up the hill” creates some

45. This is one point in the argument at which the notion of regulative ritual as discussed by Tambiah, (1985:136-7) and Gose (1994:4-8) is relevant. This sense in which ritual is regulative has grown out of observations that rituals are not necessarily constituted independently of “pragmatic” kinds of activities. In this capacity, these ritual events help shape and orient a set of practices already underway. In this capacity, I do not think the primary association of this standard with the RTMP is spurious.

tension between the interpreter, who wants to elaborate the landscape horizontally, and child, who wants to “climb” (or tension with the adult who is suffering due to the height). Here the relevance of the Adventure in Palaeontology as a performance returns:

Performance does not construct a symbolic reality in the manner of presenting an argument, description or commentary. Rather, it does so by socially constructing a situation in which the participants experience symbolic meanings as part of the process of what they are already doing. (Schieffelin 1985:709)

In this GNSE program, this occurs as the interpreter establishes a performance space, incorporates the group into this and consequently recontextualizes their social dynamics in another discursive setting. In this case the other discursive setting consists in the means and ends of palaeontology (a formal discourse). In this way, children are no longer related to their parents simply as children to adults, but in a relationship levelled in within the palaeontological project. The key here is that the project has “an end” and I am suggesting this end is borrowed by the family to realize their biographical objective, whereas the interpreter recognizes the existence of these other projects and is also, in turn, able to conscript these in the service of the *insitu* moment.

At the Hoodoos we see the totalization of the family in a conventional relationship that distinguishes and incorporates a landscape feature - in a significant or indexical way - in the process of familial biography formation. It also happens that the “really real,” that is, transposable, realization of an

insitu fossil is also contingent on being totalized in a non-token indexical relationship to a social production (even if this social production is the romantic individuation of a charismatic palaeontologist). This capacity for practical transposition between the two projects enables the group's movement up the hill towards a landscape objective. The following quote from Scheffelin captures something of what I am getting at here:

... symbols are effective less because they communicate meaning (though this is also important) than because, through performance, meanings are formulated in a social rather than cognitive space, and the participants are engaged with the symbols in the interactional creation of a performance reality, rather than merely being informed by them as knowers. (Scheffelin 1985:707)

By being involved in the construction of the event, tourists and interpreters are able to co-construct the objective that is ostensibly negotiated on the market. The importance of reciprocity within the event itself would seem to suggest the offering remains somewhat contingent throughout the event, perhaps only to be resolved - one way or another - at the *insitu* moment. But the intensification of this give and take between those constituted as participants in the construction of the event, is not neutral. For the interpreter, "reading the group" consists in becoming competent at recognizing what participants are trying to achieve (if anything) during the event and facilitating this (but in terms of discursive program objectives; the palaeontological performance). Each group is, nonetheless, a new set of people. However conventional their agendas, the interpretive process is contingent on the cultivation of a certain kind of intimacy with *each* new

group. As a consequence, a degree of contingency attends the pursuit of *insitu* fossils here and this contributes to the conduct of the exercise.

The interpreter is less engaged in the business of information transmission and even less in the delivery of a finished product. The process is about effecting a transformation in at least two things (a) how the group relates to the landscape, and (b) how the group relates to the group. The mediating agency in this is that of the interpreter, who as I have noted, is engaging both transformations through performance. The relevance of a particular skill in reading the landscape is one thing, but the success of the total enterprise is contingent on the interpreters ability to draw upon and direct the concrete relativity of each group towards a conventional moment in the act of assessing locality. The transposability (that is, general success) of the moment at which the *insitu* fossil is realized is tied to the quality of the relationships realized within the group; that is, in how they are esteemed to be meaningful.

The means by which this significance is developed during the Adventure in Palaeontology are partially grounded in the variety of projects I have been describing through chapters 4 and 5. If we trace the origins of these means back through the contextx I have elaborated, we can see Tyrrell's structural core continuing to sustain the exercise of multiple dominant institutional projects in the reproduction of the palaeoscape. In the next chapter, I conclude this thesis with reference to this modern landscape form.

Chapter Six: Conclusion

In this chapter I conclude my thesis. I initiate this problem by returning to the issue of how the Badlands landscape embodies a number of paradoxes. First, I look at how the language of Earth science accentuates the initial paradox I discussed in the form of the Badlands landscape homology (Figure 1). Then I turn to some data produced by a group of schoolchildren who participated in GNSE's *Adventures in Palaeontology* program. I use this data to demonstrate the conversion of this homology and its paradoxes into cultural resolutions that stand as representations of the Albertan palaeoscape(s). Following a brief discussion of how these images express a structural play with the Badlands historical and regional context, I conclude the thesis with a summary of some of its main contributions to both academia and the interpretive community at large.

If, after all that has been discussed, we are able to ask the question: "What is going on here?" I have succeeded in my task. At the outset, I stated my main aim in writing this thesis was to demonstrate how palaeotourism can be treated as an effort in the cultural construction of the Badlands landscape. Normally palaeotourism is treated as a naturalized tourism phenomenon. From within this latter perspective, the question of "what is going on" is obvious. Everyone knows that Badlands palaeotourism is just that: tourism. With this certainty in place, it is simply a matter of generating a totalizing definition of the tourism phenomenon (e.g. De Grazia 1964;

Dumazdier 1960; Gold and Burgess 1982; Graburn 1977; Kaplan 1960; Moore, et al. 1995; Parker 1983; Pieper 1952; Prentice 1993). In light of this, to even succeed in distinguishing palaeotourism as a cultural phenomenon would constitute success in terms of my thesis objectives.

But I would like to proceed a little beyond this accomplishment to make a stronger case for the relevance of an anthropological analysis of this popular encounter with the Badlands and Earth science. If we return for a moment to the Adventure in Palaeontology, we see a four hour program that is incredibly complex. This GNSE program unfolds at several different levels, some of these are at once discursive and others are nondiscursive. Despite this complexity participants are still able to experience “successful” programs in which “everybody has an incredible time and finds a dinosaur to boot.” The production of this reductive consensus has analogies in the broader production of the Badlands palaeoscape. To get at these analogies and their significance, let us begin with a consideration of the rationale behind the interpretive event in the first place.

The Palaeoscape: Towards a “Political Economy of the Imagination”

The language of Earth science predicates a problem in the form of the Badlands landscape. Within the language of this academic specialization, the past that is supposed to be so tangible here is also supposed to exist somewhere other than the present. The Cretaceous and the Holocene are supposed to be distinct geological/temporal entities. Marine and desert

environments are radically opposed in that, by definition, one is relatively wet while the other is relatively dry. Surfaces and subsurfaces are supposed to be two different kinds of things yet the Badlands landscape is, in technical terms, both. This same landscape can be talked about as being marine, while at the same moment someone trips over a clump of cacti. Tourists are not time travellers, yet they do engage the late-Cretaceous in a meaningful way while navigating the palaeoscape (Table 5).

Temporal Domain	Past:	:Present
Temporal Index	Cretaceous:	:Holocene
Environment	Marine/Deltaic:	:Desert
Spatial Domain	Subsurface:	:Surface
Geology	Ancient:	:Recent

Table 5: Earth Science Contradictions: The Badlands Palaeoscape

The formal discourse of palaeontology predicates the (oppositional) ambiguity of this Badlands landscape, thereby rationalizing the interpretive event. If we return to Figure 12, the issue that emerges is: where are we when journeying here? If I am in this landscape, where am I (and by extension, where am I when I get home? Where am I in *the scheme of things*)? In light of these questions, we can see how palaeontology predicates what it also solves, through a specialized interpretive act. In these terms, Earth science is at once a discourse on place par excellence, in that within it's own terms, it both raises and solves the question of location.

The contradictions described in Table 5 apply to the Badlands

landscape North of East Coulee (Figure 12). These are the hills within which the Adventures in Palaeontology conducts its hike. Despite, or perhaps with the aid of, the contradictions I have been discussing, these are the same hills in which people periodically come to a collective certainty about where they are and what they are interacting with. This is most clearly the moment at which the “really real “ Cretaceous is encountered, in the form of an *insitu* fossil.

The successful interpretive event is one in which the range of agendas, projects, and indexical motivations discussed in this thesis have been realized, in a moment of closure with the landscape. This closure indicates a moment of resolution, one which is realized in the collective distinction of a context-object relationship in the landscape. The touristic realization of the *insitu*, consists in the location of a fossil object in its indexical context by a group⁴⁶. As we have seen, multiple indices are at play in the production of this event, and it will always remain an open question as to which schema dominates its resolution into structure.

Appendix B is a collection of landscape representations (palaeoscapes) provided by a group of school children who attended the Adventures in

46. See Appendix B, P6 for what I would consider a participants representation of this conventional moment. The landscape representations, or palaeoscapes, collected here were selected out of a collection produced by a grade 5 class. This class was from a rural school just outside of the Badlands region. The images were not solicited, and it is common for schoolgroups to follow up their visits with this kind of feedback. Although I have culled these images out of a larger group, they are representative.

Palaeontology program (what interpreters refer to as “fan mail”). What is striking about these images is the cleanliness with which they vary, in a tight relation to a stratigraphic index (horizontal elaboration) (P1,P2,P3,P4,P5,P6) or alternatively, something that privileges the “climbing” (vertical elaboration) (P7,P8,P4,P5). Beyond the point that variation in these indexical expressions actually generates landscape forms (the vertical indices are decidedly not the Badlands in the sense of a “realist” aesthetic, in fact, they reference entirely different landforms), it is also possible for a single representation of the experience to combine the two indices (P4,P5) (again, generating distinctive landscape forms).

I would like to suggest this compendium of images represents the palaeoscape(s) I have touched upon throughout this thesis. In light of the structural clarity with which they manifest relative landscape forms, these images reflect the significant role played by concrete cultural dynamics in the construction of the palaeoscape. If we turn to the question of how or why this group of schoolchildren have expressed their imagination of the palaeoscape in these structural terms, the picture becomes more interesting. The stated objective orienting their encounter with the Badlands was the strategic pursuit of an object, or landscape resource. The forms that have resulted from an imaginative reference to this pursuit recall the structural core I have culled out of a consideration of Tyrrell’s historical practice (Table 1). This suggestion holds insofar as the distinction between the stratigraphic

(surveying) and 'mountain climbing' (prospecting) landscapes refer to enlightenment and romantic schemas, respectively (Table 1).

So, if people come to the Badlands to see fossils, that is, if fossils can be situated as global "draw" factors, we might ask why are tourists not interested in the fossils embedded in roads, exposed in ditches and other natural/infrastructural outcroppings they encounter in the daily course of their lives? That is, it is not necessarily true fossils only occur in the Badlands. It is possible to prospect fossils in a variety of landscapes which are not considered palaeoscapes. I have already commented on the relevance of political economy to the production of touristic space. However, in theory at least, there is access to space in other places as well. Perhaps a political economy of the imagination is as relevant as any other. There is a sense in which Badlands fossils are considered more 'real' than those located elsewhere (Bailey 1991). Part of this has to do with their contextualization within the palaeoscape. But as noted, this landscape form is itself an elaboration of the modern pursuit of subsurface resources.

In light of this, it might be usefull to consider fossil localities as productions. They are reducible to neither the dissociated operations of nature, nor the equally reified domain of society. The distribution of the fossiliferous landscape is part of an ongoing negotiation between what might be referred to as nature and culture, the arrangement of things and the arrangement of society, the constitution of objects and the constitution of

people (Kopytoff 1986). This is hinted at in the convergence of biography formation at the level of both personhood and the state (natural heritage) in the touristic generation of the palaeoscape. It might be true fossils do have some sort of existence prior to the palaeontologist's or tourist's encounter with them. But this does not change the fact that in order to see them "properly," we resort to a direct collective modification of the frameworks of (collective) perception itself. These gymnastics consist in a great deal of interpretive gerrymandering, and the nature of these dynamics are important for understanding the artefactual dimension of fossils and why *Albertan* ones are successful international commodities.

There is something partially indissoluble in the engagement of cultural/social and scientific agencies in relation to the ongoing production of fossils. This means there must be a moment at which they articulate in a concrete though contingent way and my suggestion is that this articulation constitutes the palaeoscape, and makes it a relevant point of analysis. The guided hike constitutes fossils as non-token indexes in family/personal biographies. In forging this relationship, navigation of family biographies and in turn navigation of the late Cretaceous, is to some extent predicated in both frameworks. That is, how we structure our exploration of the late Cretaceous (or at least palaeoscape) in scientific terms is to some extent predicated in the biographical processes of nuclear families.

These conventions are part of that deep structural apparatus of the state

system. If in Tyrrell's day they were applied for the purpose of (coordinating/enabling/regulating) infrastructure development, then today they retain these functions as cultural structures, manifesting locally in Badlands hiking practice. Tourists do engage locality practically while drawing upon/improvising from a "core" initiated by Tyrrell and transmitted in a distorted but coherent form through the historical structuration of the Badlands as an economic and cultural region. In engaging the palaeoscape, tourists also engage the non-discursive predicates of the very means of their journey: the provincial highway system and its relationship to the UTM Grid (see chapter two). There is a sense in which the *insitu* or epistemological relationship established in the palaeoscape begins to look like political economy in how it facilitates the articulation of space and the enculturation of soil into a national or provincial property regime (Albertan dinosaurs; partial geological manifestations are, after all, "Albertan.")

Ranging from Prairie Badlands to mountain ridges, the rocks in Alberta provide an unparalleled glimpse into the past of our province and our planet. (Director, RTMP) (Palaeontology 1993:6)

The Badlands palaeoscape establishes a common ground for epistemology, political economy, household and individual distinction in the procedures we use to produce and navigate subsurface landscapes. This interpenetration of the cosmological by the industrial here is paralleled by another dynamic that has been described by (Abrams 1982:299) and that is the convergence of individuation processes and the transition into modernity.

Conclusion

The primary contribution of this work is to situate a typically modern phenomena, palaeotourism, on a level playing field with research done on other social and cultural landscape phenomenon that have been studied by anthropologists. Another (related) contribution lies in the basis of an argument that the sciences are powerful not in spite of, but because of the way in which they are amenable to popular deployment. In the Badlands we see this facility at work in the accommodation of familial and economic agendas in the realization of the strategic fossil.

With this, there is also the contribution to be made back to the interpretive community that I have relied upon in the development of this analysis. I have already had feedback to the effect that by rendering operating assumptions salient, interpreters have been able to think more critically about the development of their program offerings. This is the best feedback I could possibly receive.

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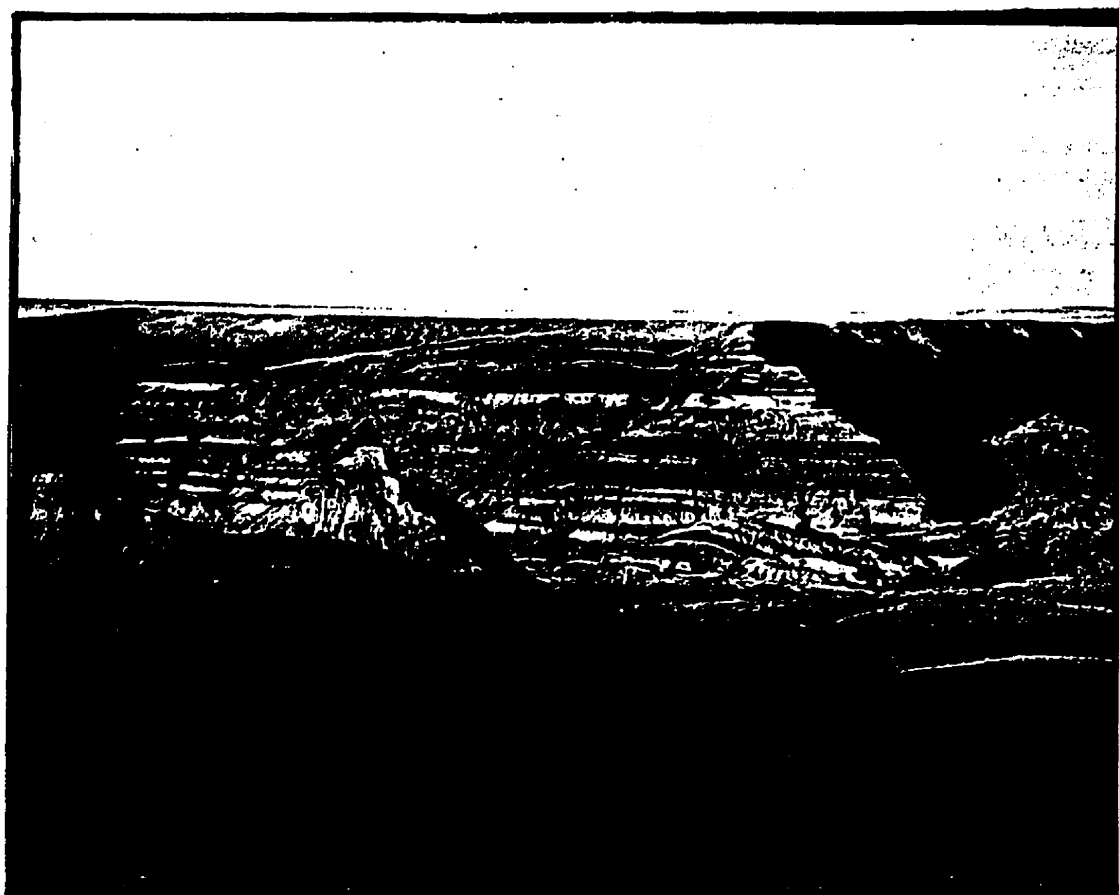
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APPENDIX A
- FIGURES (1-12) -

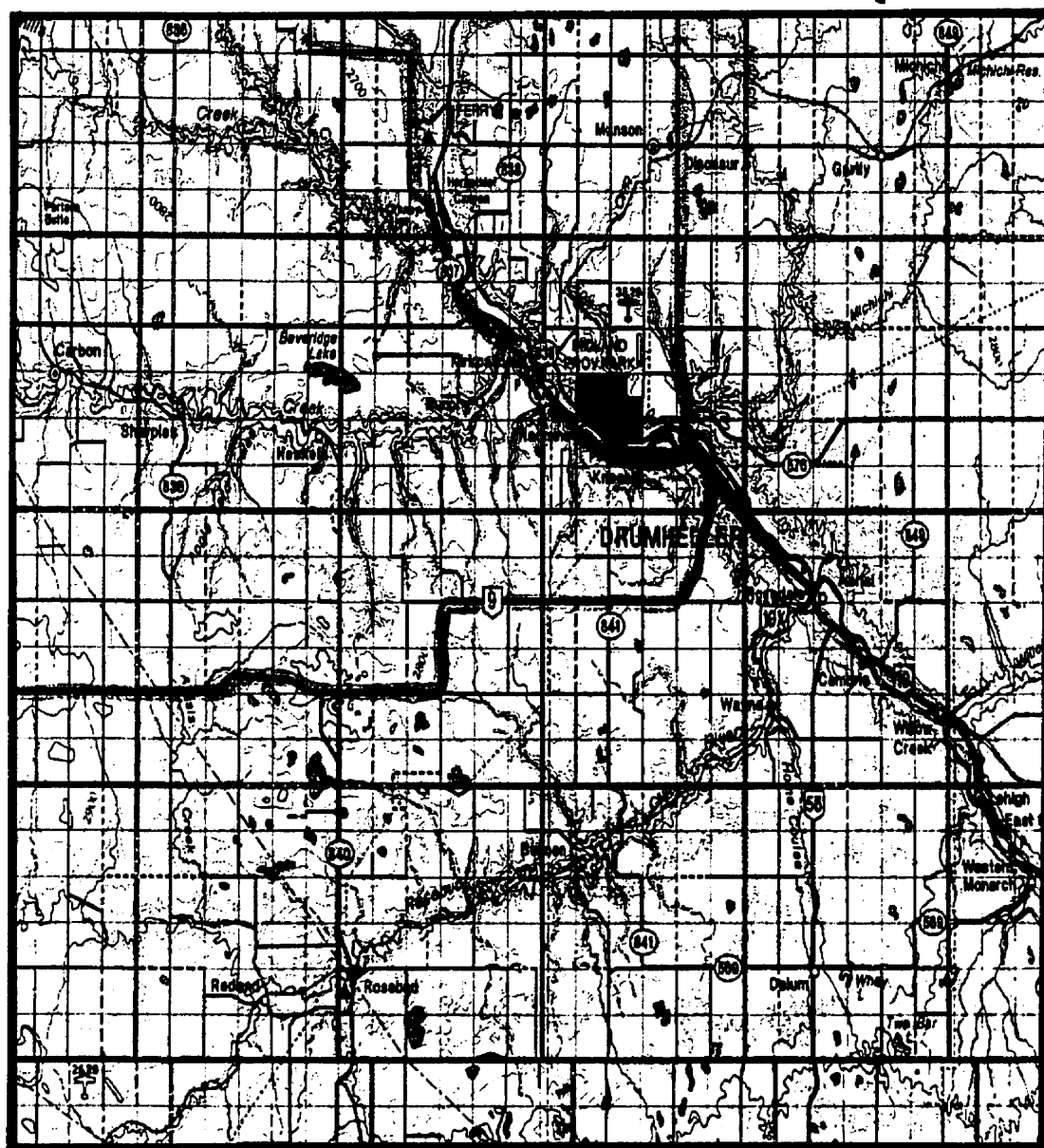
Figure 1
The Badlands Landscape Homology



Prairie:Badlands::Horizontal:Vertical

The meeting of the Prairie and Badlands presents a landscape contradiction that is emphasized in the production of Badlands palaeotourism.

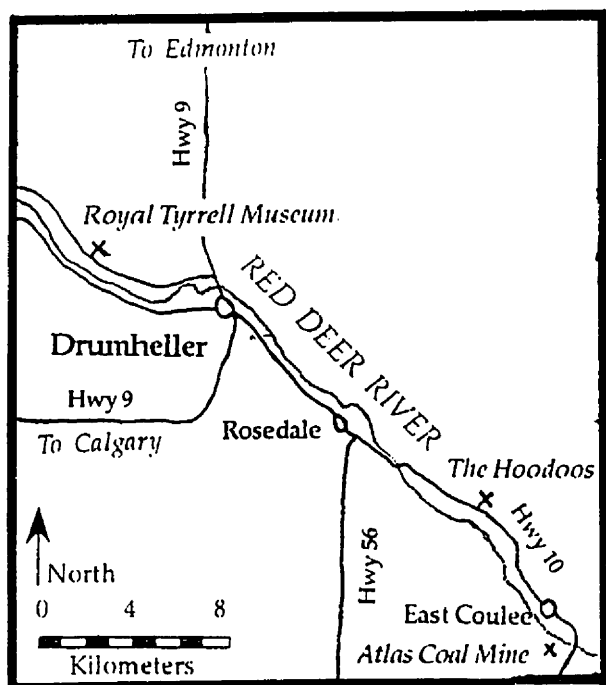
Figure 2
Grid, Highway and Region



Drumheller 82/P (Forestry Lands and Wildlife 1989)

At a glance, it is difficult to tell which lines represent latitude and longitude, and which lines demarcate routes of travel. We are aided by the presence of markers (e.g. Highway 9, Secondary Highway 837, or Highway 10) and the way in which they meet to create a focus in the landscape. These routes have been shaded to help foreground them against the UTM Grid/Grid Road presence in the map.

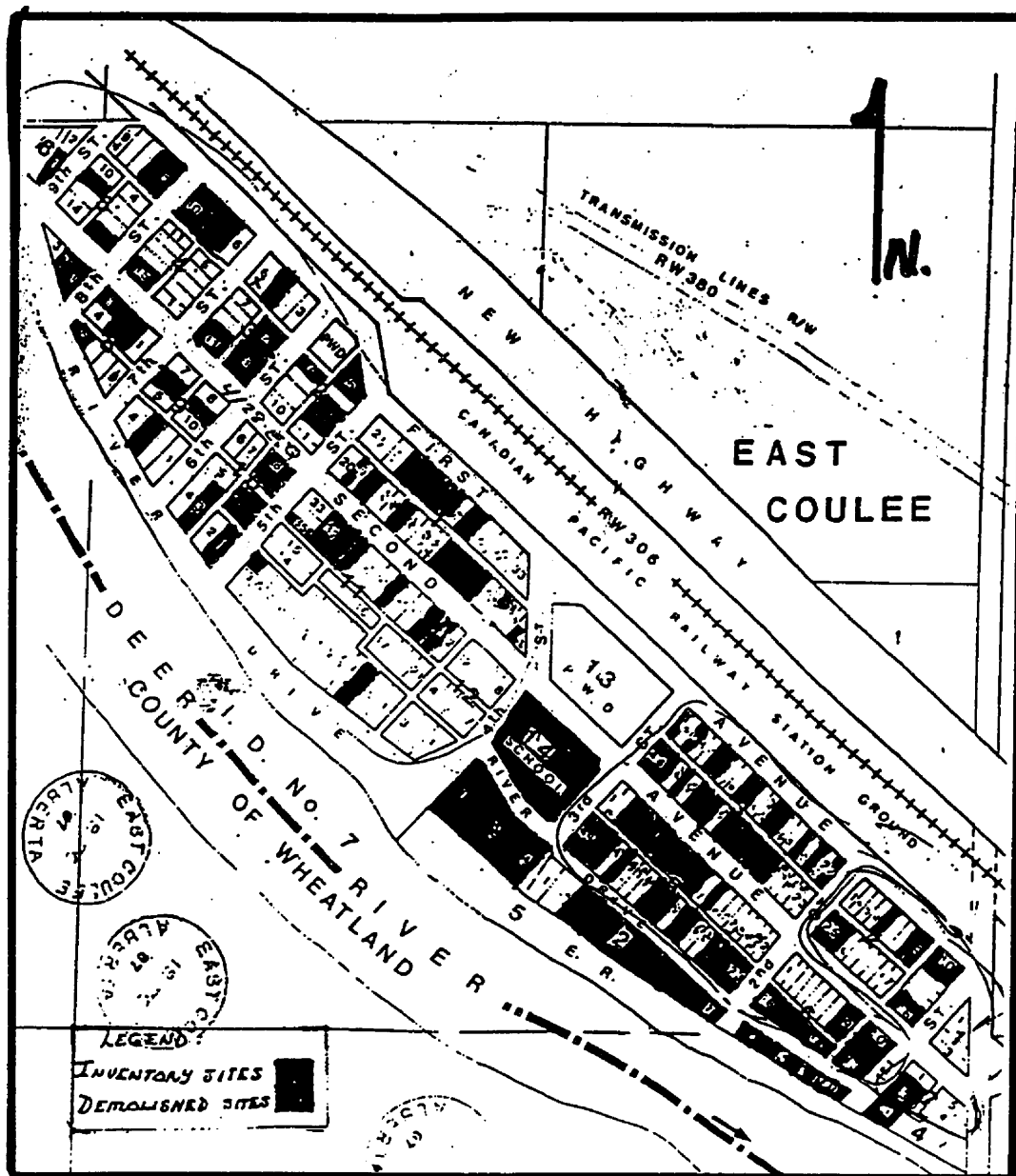
Figure 3
Tyrrell-East Coulee Radius



(Courtesy: GNSE)

This map is drawn from promotional material designed to market the eastern radius of Dinosaur Trail. Officially, the Trail does not extend into East Coulee. Yet in touristic practice, there is a degree of ambiguity over where Dinosaur trail really begins and ends. The relationship that exists between the RTMP and East Coulee, as tourism destinations, is a key point in the seasonal reproduction of this tension.

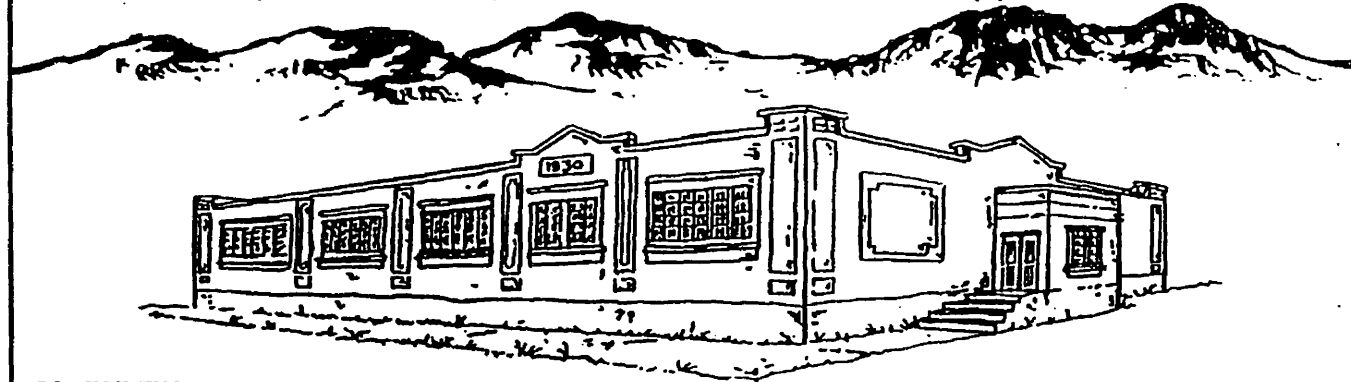
Figure 4
Survey and Layout of East Coulee



(Courtesy: East Coulee School Museum Archives)

In this map, we can see relationships between the survey system, the administration of property, the imagination and development of infrastructure isolated within a single frame of reference. The Community Centre now occupies the block labelled 13, whereas the ECSM sits opposite (block 14).

EAST COULEE SCHOOL MUSEUM AND THE WILLOW TEA ROOM



DID YOU KNOW!

THAT EAST COULEE IS LOCATED IN THE RED DEER RIVER VALLEY, ALSO KNOWN AS THE VALLEY OF THE DINOSAURS.

THAT EAST COULEE WAS BORN IN 1929 AS A COAL MINING TOWN

THAT SCHOOL OPENED IN 1930 AS A FOUR ROOM SCHOOL, THE LATER ADDITION ADDED EIGHT MORE ROOMS.

SEVERAL ONE ROOM SCHOOLS WERE IN USE AS WELL, TO KEEP PACE WITH THE GROWING POPULATION.

THE POPULATION OF EAST COULEE INCREASED TO 3,800 IN THE 40's

EAST COULEE THRIVED FROM 1940 TO 1950. MINES STARTED CLOSING IN THE EARLY 1950's, BECAUSE NATURAL GAS WAS MAKING ITS INROADS AS A HEATING SOURCE.

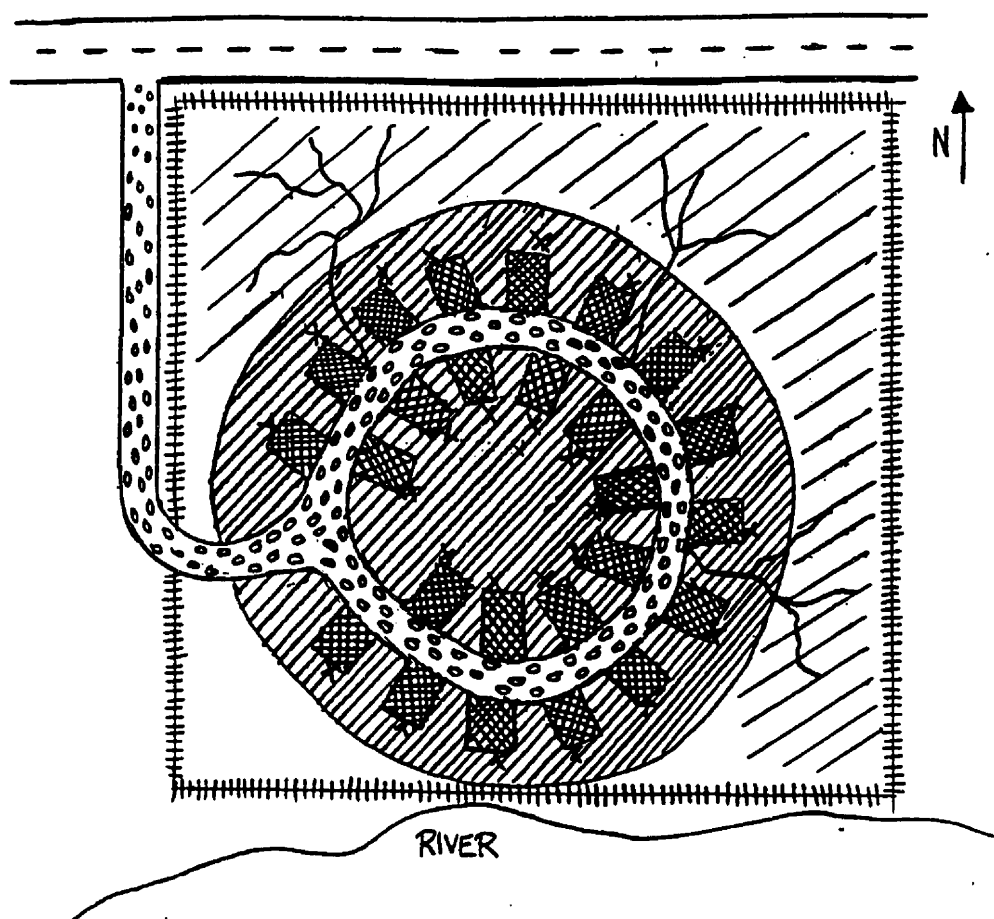
DURING EAST COULEE'S HAY DAY, IT BOASTED FOUR HOTELS, ONE POOLHALL, ONE MOVIE THEATRE, TWO TAXIS, TWO SERVICE STATIONS, THE HUNGARIAN CULTURAL CENTER, MANY STORES AND A FEW LESS PUBLISHED OPERATIONS WHICH BENEFITED GREATLY FROM PEOPLE'S VICES.

THE CURRENT POPULATION OF EAST COULEE STANDS AT APPROXIMATELY 160 SOULS, MANY OF WHICH ARE RETIRED MINERS OR THEIR WIDOWS.

DID YOU KNOW THAT THE CEMENT TROUGHS IN FRONT OF THE SCHOOL WERE CONSTRUCTED BY MR. LAWRENCE THE SCHOOL CARETAKER. THEY WERE FILLED WITH WATER AND THE CHILDREN USED IT TO CLEAN MUDDY BOOTS AND SHOES. MR. LAWRENCE INSISTED THAT AS MUCH MUD AND DIRT STAYED OUTSIDE OF THE SCHOOL AS POSSIBLE.

Figure 5
Traditionalizing East Coulee

Figure 6
Political Economy of the Campground Landscape



KEY:

Regime	Graphic	Feature
Private/Landowner	+++++	Fenceline
Public/Private	○○○○○	Road
Collective/Children Recreational	//////	Badlands
Recreation & Domestic	//////	Lawn
Collective/Children Recreational	~~~~~	Paths
Private/Families Domestic	X	Tents
Private/Families Domestic	XXXXX	Camping Stall

Figure 7
Spatial Organization of Hoodoos Recreation

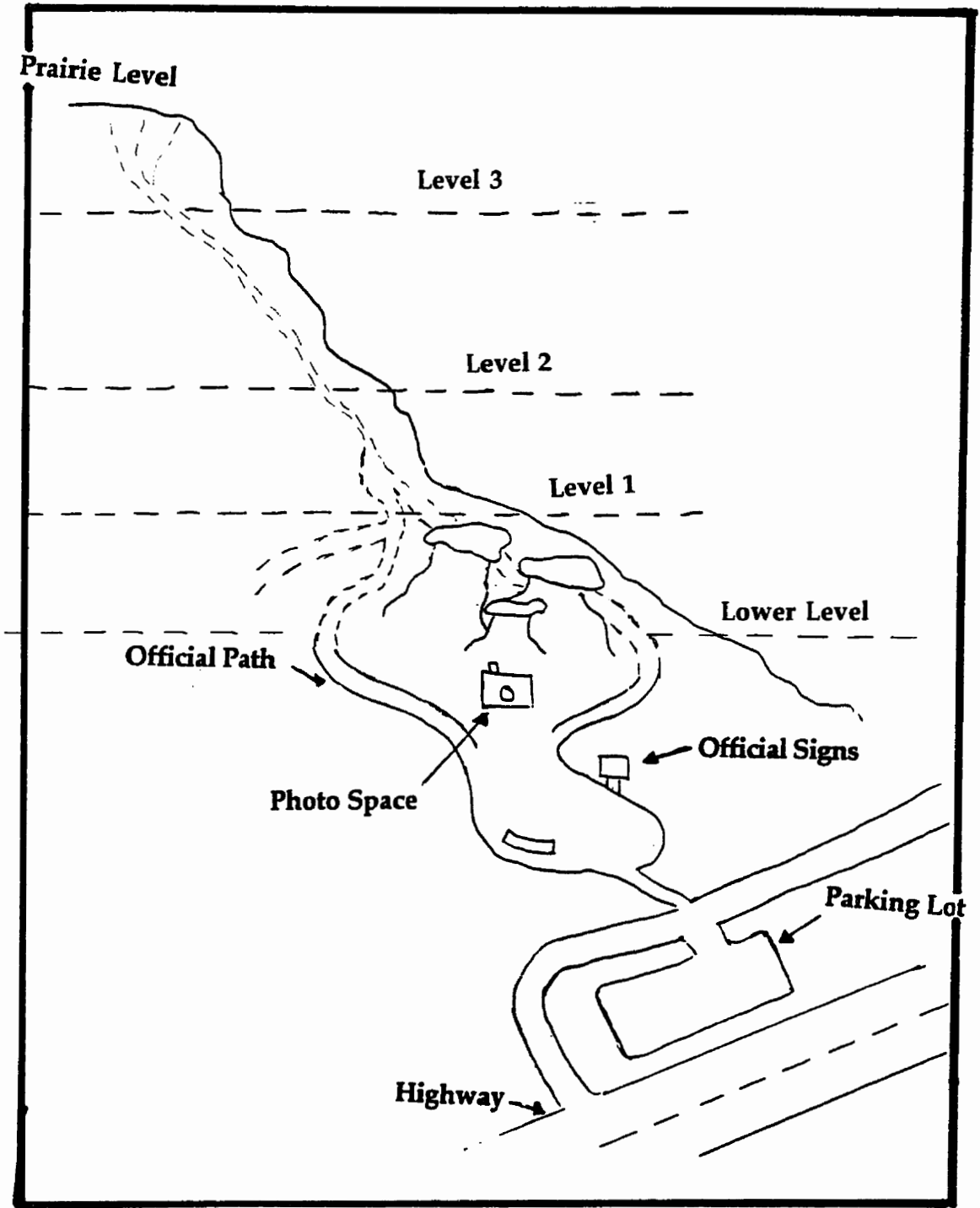
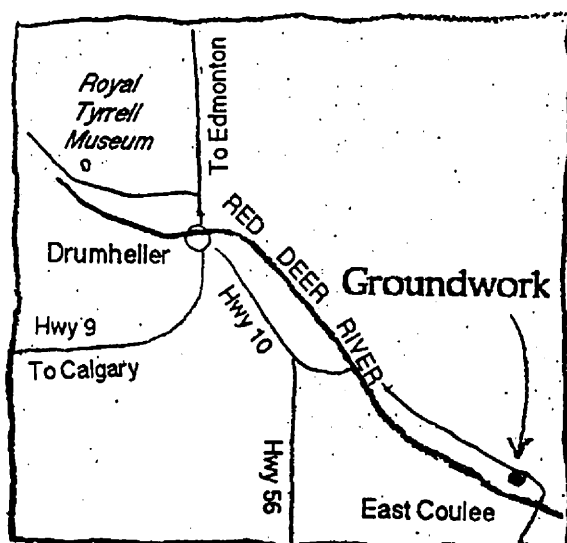


Figure 8
Relational Location of Groundwork



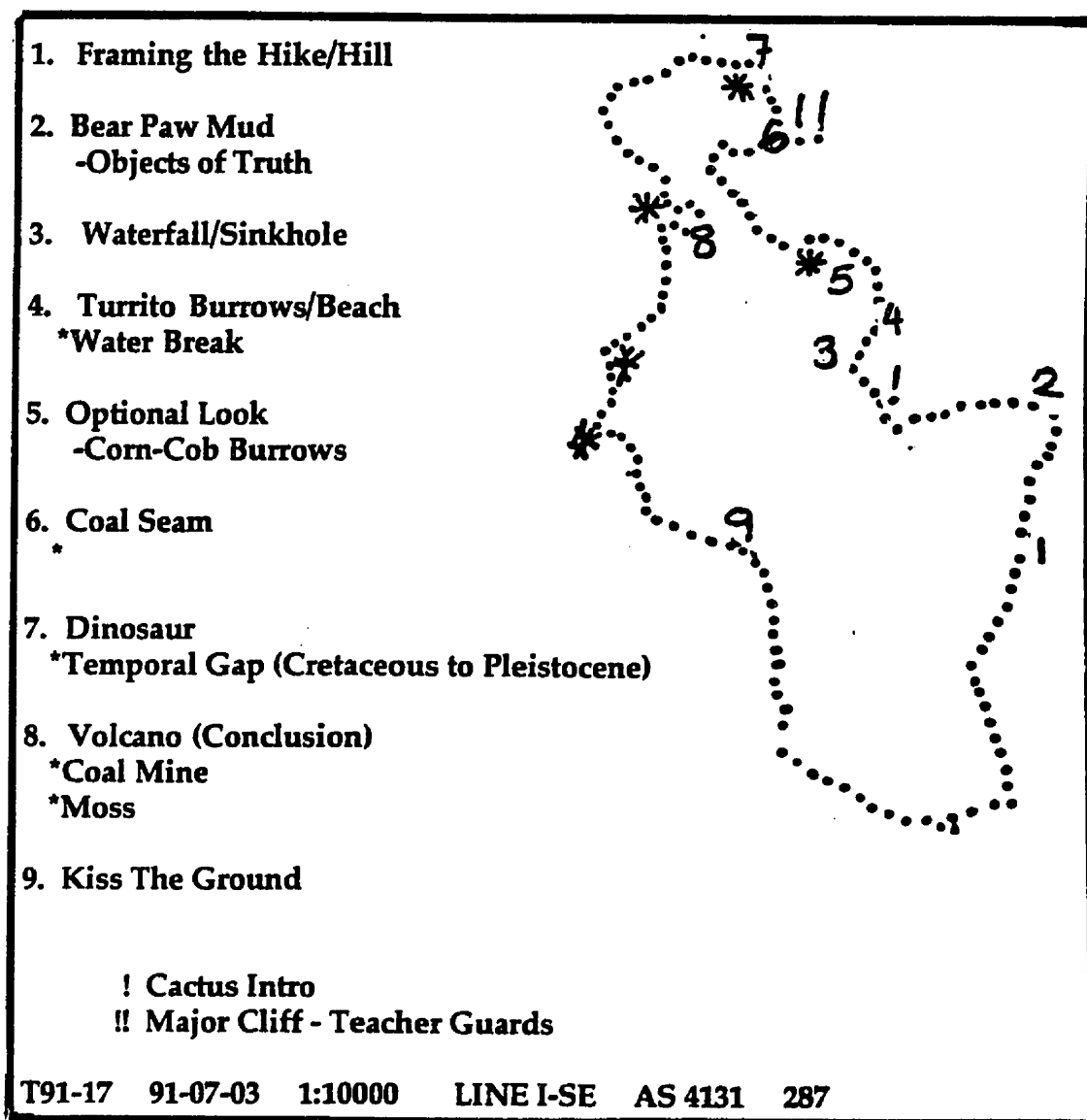
Hoodoo I Call?

Groundwork Natural Science Education
 phone / fax (403) 822-3976
 Box 516, East Coulee, Alberta, Canada. T0J 1B0
 e-mail: groundwk@telusplanet.net
Reservations required for all programs!

(Courtesy: GNSE)

This text and map are drawn from the same marketing brochure. The Hoodoos are located along Highway 10, relatively close to East Coulee. Other maps have included little Hoodoos pencilled in at the appropriate spot. The substance of these referents is important since the map references both "where" GNSE is, and "what" projects it attempts to address.

Figure 9
The Guided Path



(Courtesy: GNSE)

Figure 10a**Promotional Text: Badlands Hike****Figure 10b****Promotional Text: Fossil Lab*****Adventures in
Palæontology*****A. Hands-on Fossil Lab** all grades

Program length: 1–1½ hours
 Learn the laboratory techniques of a palæontologist. Use hammers and picks to dig real dinosaur bones in small scale excavations. Execute finishing touches to fossil specimens with brushes and awls. Assemble natural puzzles of fossil fragments. Cast your own miniature bone bed to take home, using real fossils from the age of dinosaurs: bones teeth and shells.

B. Badlands Hike all grades

Program length: 2–2½ hours
 Explore the badlands the way a palæontologist does. Prospect for fossils and learn the stories written in the layers of rock. Learn to recognize many kinds of rocks and fossils. You may

even find a new dinosaur!

Please note that fossil collecting is not a part of this activity. Moderately strenuous. Field clothing, proper footwear and water required.

(Courtesy: GNSE)

Figure 11a
Promotional Graphic: Badlands Hike

Figure 11b
Promotional Graphic: Fossil Lab



(Courtesy: GNSE)

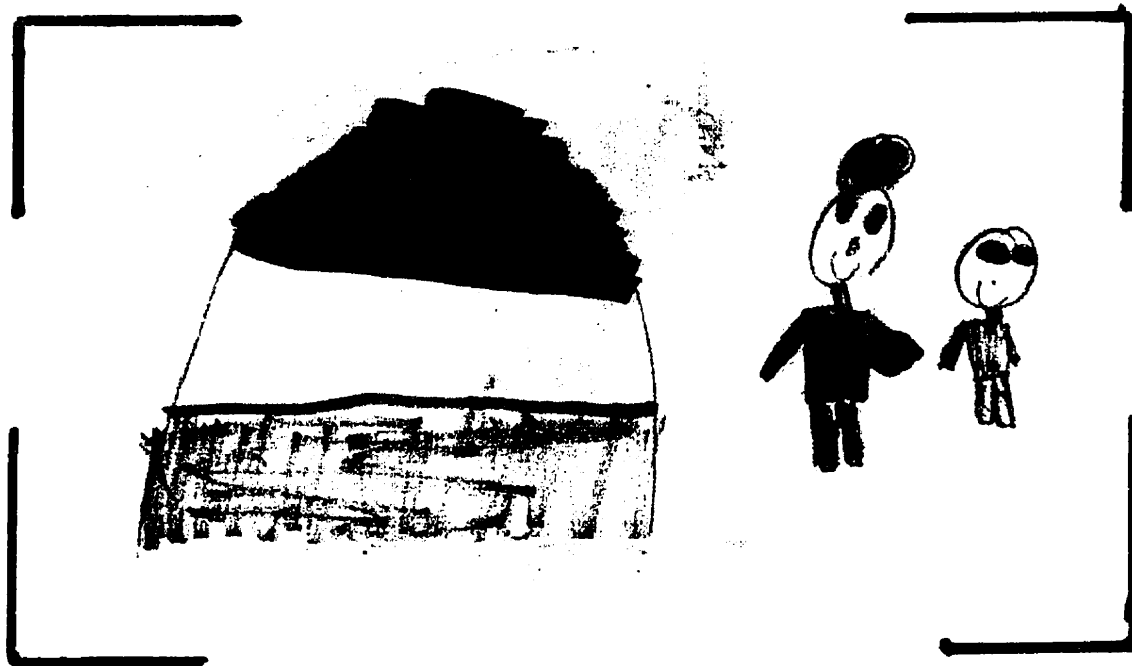
Figure 12
"East Coulee's" Badlands (South Face)



(Photo: T91-17 91-07-03 1:10000 LINE I-SE AS 4131 287)

The band of Badlands running roughly east/west through this photo can be classified in completely opposite terms within the same discourse. They are at once a desert and at the same time an ancient marine environment. The process of navigating towards a certainty in this landscape (the *insitu* moment) entails an encounter with political economy (see Figure 4, this map overlaps Figure 12).

APPENDIX B
- PALAEOSCAPES -



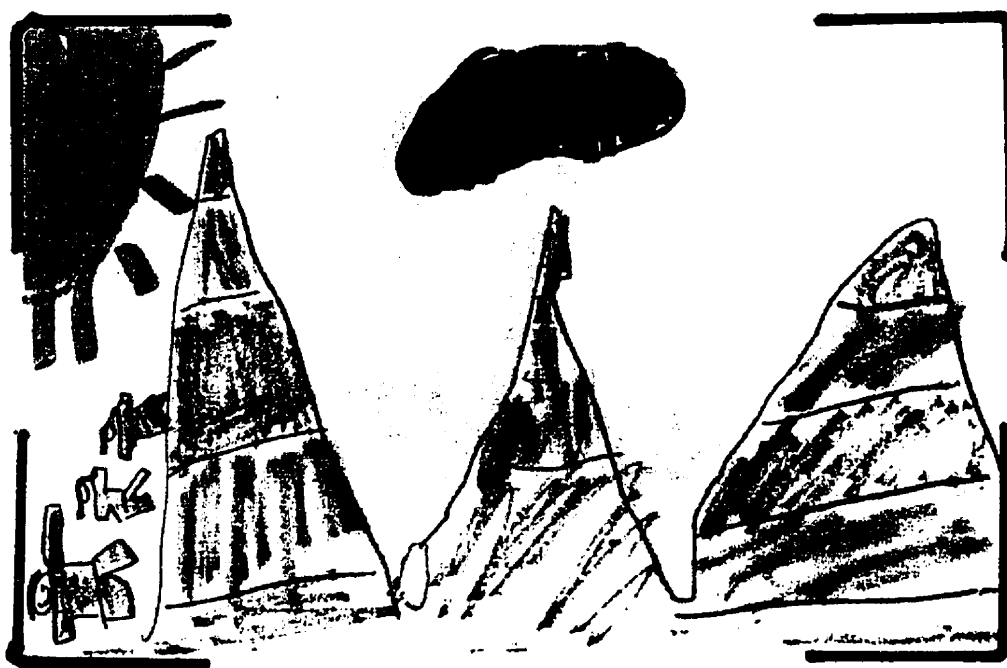
P1.



P2.



P3.



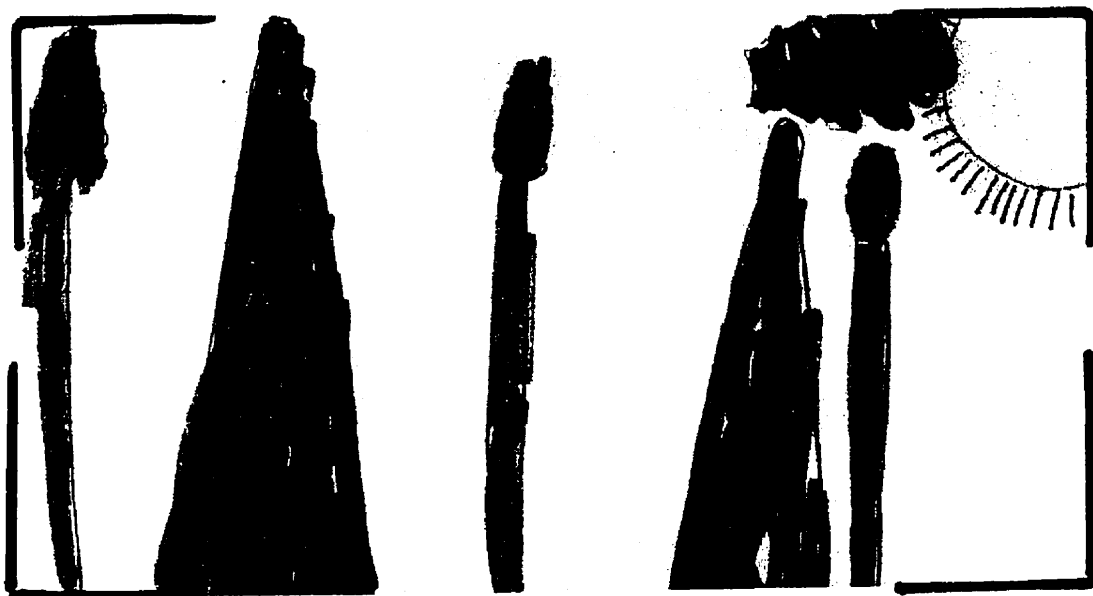
P4.



P5.



P6.



P7.



P8.