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Author	Hourston, Laura.
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Romantic Nationalism and Modernity as competing narratives of identity in the Museum of Scotland, with reference to the Canadian Museum of Civilization and the Museum of New Zealand Te Papa Tongarewa.

Laura Hourston

Ph.D.
The University of Edinburgh
2001

I declare that this thesis has been composed by myself, that the work is my own, and that it has not been submitted for any other degree or professional qualification:

Signed..   ....

Date........7th ..Mare..,.2002..................

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ACKNOWLEDGEMENTS

ABBREVIATIONS

IMS	=	Industrial Museum of Scotland
MSA	=	Museum of Science and Art
RSM	=	Royal Scottish Museum
RMS	=	Royal Museum of Scotland
MOS	=	Museum of Scotland
CMC	=	Canadian Museum of Civilization
Te Papa	=	Museum of New Zealand Te Papa Tongarewa
NMAS	=	National Museum of Antiquities of Scotland
NMS	=	National Museums of Scotland
RIAS	=	Royal Incorporation of Architects in Scotland
NMC	=	National Museums Corporation

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ABSTRACT

This thesis is an exploration of the representations of identity, through both architectural form and material culture, in three recently 'constructed' national museums. It is proposed that a dialectical relationship between Romantic Nationalism and Modernity informs the depiction of identity in the museums, and the verification or otherwise of this hypothesis is the driving force behind this inquiry.

The Introduction raises the concept of 'epistemes', or schemas of knowledge, through a general history of the museum, beginning with the powerful and chaotic private holdings of pre-Modernity, before considering the newly objectified, national collections of Modernity. The appropriateness of the contemporary museum as a cultural, social, and political indicator is then examined before each of the case-studies is introduced.

The main body of the thesis is structured around the temporal exhibition parameters of the principal case-study, the Museum of Scotland, beginning in Chapter One with the period from prehistory to 900AD. Here, the influence of nature and landscape on the formation of collective identity is investigated from both indigenous and colonial perspectives, and romanticised reflections of these relationships are revealed in the contemporary museums. In Chapter Two, which covers the period from 900 to 1707, the Romantic myth of nation is seen to draw on the medieval past, and echoes of this legacy are discovered in the contextualised planning, architectural form, and interior design of the three museums. In many ways Chapter Three is pivotal, as it addresses the intellectual shift of the Enlightenment, which instigated the formation of nation-states, and initiated the new rational era of Modernity. Its main tool, objective classification, is still to be found at the very heart of the three exemplary museums, and other defining characteristics of Modernity, such as didacticism, social control, and imperialism, also have a lingering impact. In the final chapter, which is concerned with the twentieth century, the international machine aesthetic derived from Modernity is shown to have occurred in parallel with an expressionist form of Romantic Nationalism, and references to both these movements, as well as to the more recent development of postmodernism, are demonstrated.

Finally, specific conclusions regarding the individual museums are drawn before more wide-reaching inferences are made.

INTRODUCTION

Introduction to time-specific theories of knowledge and their
relationship to the museum.

The idea that different epochs have operated within the boundaries of different
absolute truths is more likely than the presence of some eternal, definitive truth. In
accepting this basic premise, it can be extrapolated that knowledge is not a constant
universal system, but a series of different matrices of cognisance corresponding to
discrete historical periods: distinct eras have created and sustained their own
rationales. Today, this approach has wide critical acceptance, and to understand the
position of one eminent exponent, Michel Foucault, it is useful to consider the
contemporary writings of Eilean Hooper-Greenhill. She states that, 'Rather than
accept the traditional philosophical tenet that an absolute rationality exists, Foucault
rejects the familiar rational/irrational split, and proposes that forms of rationality
have a [sic] historical specificity.'[1] Belief in such a set of time-specific paradigms
therefore rejects the idea of one single schema or rationale being present in every age
and promotes instead the conviction that nature and society have been organised
around different truths in different eras. Described by Hooper-Greenhill below,
Foucault invents a clear language and comprehensive structure in order to articulate
his set of rationales:

> Just as rationality is not absolute, but relative and shaped by culture, so what
> counts as knowing has varied across the centuries. To describe the context of
> knowing, Foucault offers us the concept of the *episteme*; the unconscious, but
> positive and productive set of relations within which knowledge is produced
> and rationality defined.[2]

In the context of the central dialogue of this thesis between Romantic Nationalism
and Modernity, three such 'epistemes', those of pre-Modernity, Modernity, and post-
Modernity are of consequence, and the characteristics of these first two epistemes
will be explored presently and illustrated through a history of contemporaneous
museums and collections. However, before proceeding to these more specific

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[1]HOOPER-GREENHILL, Eilean. 'Museums and the Shaping of Knowledge', (London & New York:
Routledge, 1992), p. 9.
[2]Ibid., p. 12, from FOUCAULT, Michel. 'The Archaeology of Knowledge', (London: Tavistock
Publications, 1974), p. 191.

examples, the museum in general and its relation to such Foucaultian epistemes or structures of knowledge will be considered. How do such systems of knowledge relate to the museum? What relationship or relationships exist between these ways of knowing and remembering, and the museum institution? Hooper-Greenhill writes in the introductory section of her book, 'Museums and the Shaping of Knowledge', 'Knowledge is now well understood as the commodity that museums offer.'[3] This statement is as true as it is obvious, but as the author acknowledges, it only scrapes the surface of a deep and significant conjunction.

Throughout their shared history, museums and grand narratives of knowledge have been integrally linked on a completely different, immensurably larger scale, in two separate ways. Firstly, the museum, in raising certain fundamental questions, has acted in part as a generator of such schema or grand narratives. Particular frameworks have been produced in order to resolve the problems and dilemmas cast up by the museum itself. It is likely, therefore, that the answers to the questions in the following passage are 'yes':

> If new taxonomies mean new ways of ordering and documenting collections, then do the existing ways in which collections are organised mean that taxonomies are in fact socially constructed rather than 'true' or 'rational'? Do the existing systems of classification enable some ways of knowing, but prevent others? *Are the exclusions, inclusions, and priorities that determine whether objects become part of the collections, also creating systems of knowledge?* Do the rituals and power relationships that allow some objects to be valued and others to be rejected operate to control the parameters of knowledge in the same way as the timetabling rituals and the power of relationships of teachers, governors, pupils, and the state operate to make some school subjects more valuable than others?[4] [My italics].

Although very difficult to establish if this is or ever was the case, it is probable that museums themselves have generated such schema in the past and are still 'creating systems of knowledge'.

Second, and a much more apparent connection, is the notion that after their production these grand schema have been transposed onto the museum, initially to check their workability and validity, and then to establish them as the accepted rationale of the day. In this case, the museum not only acts as a 'test-bed' where

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[3]HOOPER-GREENHILL, 'Museums and the Shaping of Knowledge', p. 2.
[4]Ibid., p. 5.

these matrices of knowledge can be modified, but also serves to legitimise the particular paradigm in question, aiding its success and longevity. Thus, in this respect at least, it can be seen that, '...the museum in its role as the 'Classifying House' (Whitehead, 1970; 1971),[5] is and has been actively engaged over time in the construction of varying rationalities.'[6]

Characteristics of the episteme of pre-Modernity, as illustrated by museums and collections of the period.

The first schema that is of interest here was dominant before the onset of the Enlightenment and has been articulated in several different ways, being called the pre-modern era and the religious era, as well as the Renaissance episteme. However, despite the differing terminologies, there is only one notable difference between the three proposals, and this relates to the centrality of God in each. The religious era, unlike the other two models, posits religion in general, and in the western context Christianity, as having been the totalising grand narrative of the Medieval age. This difference is not as divisive as might be expected, however, as, although the other two approaches do not have this spiritual belief as a fundamental aspect, they do incorporate many characteristics of the Medieval church. A very good example of this is the idea of resemblance or correspondence, which forms the principal part of the Renaissance episteme as proposed by Foucault. This schema, hinging as it does on this notion of resemblance, seems as bizarre today as it does illogical. In that age, however, Foucault believes the prevailing rationale decreed that the world's contents, regardless of whether they were visible or invisible, were linked to each other through some perceptible or imagined similarity or sameness. All manner of things contained signs to be read, which allowed them to be related to other distant, and possibly abstract, things. For example, faces were perceived to signify the stars and have hidden, continuous, and endless relationships with them.[7] Foucault categorises the four forms of similitude as being convenientia, aemulatio, analogy, and sympathy, and his theory has been paraphrased as follows: 'Resemblance, sameness, links and relationships are a basic structure of knowing. To know is to understand

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[5] WHITEHEAD, P.J.P., "Museums in the History of Zoology", Parts I and II, *Museums Journal*, Vol. 70, Nos. 2 and 4, pp. 50-57, and 155-160, respectively.
[6] HOOPER-GREENHILL, 'Museums and the Shaping of Knowledge', p. 4.
[7] Ibid., p. 12.

how the things of the world are the same, however different they may look.[8] Religion, and Christianity in particular, made full use of such symbolism and signifiers, with the ritual of Holy Communion being perhaps the most potent example of this, whilst other symbols such as that of the cross, have also come to be important icons with powerful significations.
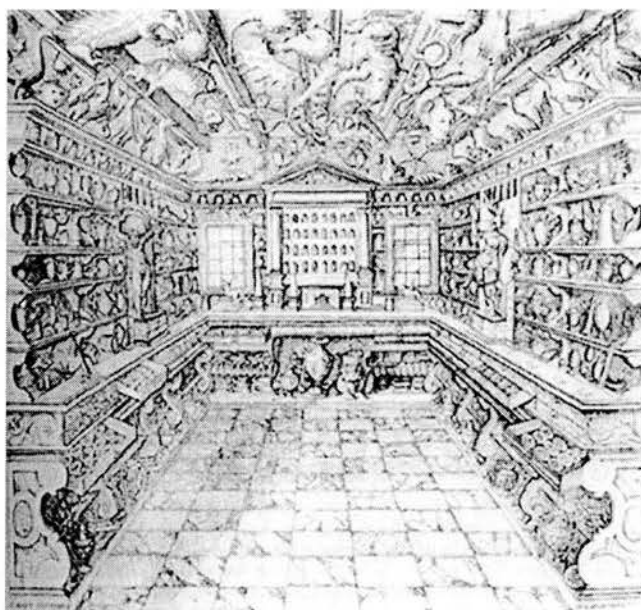
Fig. 1. The museum of Frances Calceolari in Verona, from Ceruti and Chiocco, 1622.

This characteristic importance of resemblances and signs to the sschema of pre-Modernity is nowhere more graphically demonstrated than in the realm of collecting and, more specifically, in the studioli of Renaissance princes. As Tony Bennett explains, 'typically comprising a small, windowless room whose location in the palace was often secret, the walls of a studioli housed cupboards whose contents *symbolized* the order of the cosmos'[9]. [My italics]

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[8]Ibid., p. 14.
[9]BENNETT, Tony. 'The Birth of the Museum. History, Theory, Politics', (London & New York: Routledge, 1995), p. 36.

Fig. 2. View of the east wall of the *Studiolo* of the Grand Duke Francesco I.

A collection of material artefacts was assembled with the intention that they should resemble or represent the universe in miniature.[10] This conjunction between the studiolis and the pre-modern world of resemblances did not end there however, but was apparent also on a much reduced scale: 'The real distinctiveness of the *studiolo*, however, consisted in the fact that the doors of the cupboards containing the objects were closed. "Their presence, and their meaning", as Eilean Hooper-Greenhill puts it, "was indicated through the symbolic images painted on the cupboard doors" (Hooper-Greenhill, 1992: 106)'.[11]

Fig. 3. The cabinet of curiosities: the *Metallotheca* of Michele Mercati in the Vatican, 1719.

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[10]Bennett also references Giuseppe Olmi's 1985 publication, 'Science-Honour-Metaphor: Italian Cabinets of the Sixteenth and Seventeenth Centuries', in which Olmi explains that the studioli formed, 'an attempt to reappropriate and reassemble all reality in miniature, to constitute a place from the centre of which the prince could symbolically reclaim dominion over the entire natural and artificial world'.

[11] HOOPER-GREENHILL, 'Museums and the Shaping of Knowledge', p. 106, in BENNETT, 'The Birth of the Museum', p. 36.

Here again, the pre-modern power of resemblances and signifiers is conspicuously demonstrated. For all visitors to the studioli, other than the proprietary princes and kings, the collected and revered objects themselves were inaccessible and hidden, or in pre-modern terms, 'invisible'. These ordinary, unprivileged voyeurs had to satisfy themselves with the emblematic signs of the hidden artefacts, and indeed such onlookers often made no distinction between the real exhibit behind the cupboard door and the symbolic imitation painted on it.

A second distinguishing feature of the pre-modern age was the fact that no complete understanding of the world and its functioning was thought to be achievable. Life was believed to be far beyond the realm of man's comprehension, and thus, there was no overwhelming desire to unravel its mysteries: partial knowledge was viewed as inevitable and indeed preferable. Again contemporary collections are illustrative of this characteristic of pre-Modernity. As has been seen, the earliest forms of museums, variously called museums, studioli, cabinets des curieux, Wunderkammern, and Kunstkammern, were the property of absolutist monarchs, and critically, 'these cupboards and the objects they contained were arranged around a central point of inspection whose occupancy was reserved for the prince'.[12]

Fig. 4. Ferrante Imperato's 'museum' in Naples.

The prince alone was allowed access into the cupboards to view the collection's exhibits, and so in turn he alone was allowed to glimpse the cosmos. As Bennett

[12]BENNETT, 'The Birth of the Museum', p. 36.

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explicates, 'the studiolo embodied a power-knowledge relation of a very particular kind in that it "reserved to the prince not only the knowledge of the world constituting his supremacy, but the possibility of knowing itself". (Hooper-Greenhill 1992: 106)'.[13] Therefore, although knowledge was believed to be accessible to the monarch through the vehicle of the museum, restricted access made it completely unattainable for the rest of the population. Importantly, it was from this distinction that the monarchs used the forum of the museum as a source of power, and it is therefore evident that museums began in Europe in the palaces of kings and princes as private, power-affirming collections of 'objets d'art' and curios. Through such collections, the monarch was legitimised and his power enhanced. To ensure the wider continuation of this influence however, it became necessary for such private displays of hegemony and omnipotence to be moved into a more public context, and an example of this was the removal of the previously exclusive collection of Francesco I de Medici into the Uffizi Gallery in 1584.

Fig. 5. The Uffizi, from the Arno Loggia, by Vasari, from 1560.

The need for this change is described by Guiseppe Olmi in the following terms: it 'meant that the glorification of the prince, the celebration of his deeds and the power of his family had constantly to be exposed to the eyes of all and to be impressed on the mind of every subject.'[14]

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[13] HOOPER-GREENHILL, 'Museums and the Shaping of Knowledge', p. 106, in BENNETT, 'The Birth of the Museum', p. 36.
[14] OLMI, Guiseppe. 'Science-Honour-Metaphor: Italian Cabinets of the Sixteenth and Seventeenth Centuries', 1985, p. 10, in BENNETT, 'The Birth of the Museum', p. 27.

The final characteristic of the pre-modern age, and one that is intrinsically related to the previous point, is the complete lack of a desire for, or means of verification of, observations, hypotheses, and ideas. For example, within Foucault's Renaissance episteme, there was 'no means of verification. Legend, stories, hearsay, and material things all offered possibilities for discovering likenesses and relationships. None could be discarded, as all were potentially 'true".[15] The notion of an objective, experimentally verifiable 'truth', which is so basic to our own understanding of and approach to the world, was utterly lacking in this schema. Within the confines of this knowledge, every object, idea, and proposition was regarded as equally valid as every other. In this context, just as there was no differentiation between the visible and the invisible, so there was none between language and object. Fact and fable were not hierarchicized, and neither was truth elevated above myths, stories, and hearsay. In this pre-modern world, the boundaries that we observe today between reality and falsehood were blurred, and as will be demonstrated subsequently, the romanticisation of nation draws on this subjective tradition. To summarise, vital characteristics of the pre-modern episteme were the central importance of resemblances and signifiers, the belief that the world in its vast complexity was entirely unknowable, the lack of desire for or means of verification of observations and ideas, and the homogenisation of or lack of differentiation between different levels of reality.

Characteristics of the episteme of Modernity as illustrated by the Royal Museum of Scotland.

Corroborating the previously asserted historical specificity of knowledge, the time came, as Bohm explains, when the pre-modern episteme was constitutionally challenged:

> With the coming of the modern era, human beings' view of their world and themselves underwent a fundamental change. The earlier, basically religious approach to life was replaced by a secular approach. This approach has assumed that nature could be thoroughly understood and eventually brought

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[15]BENNETT, 'The Birth of the Museum', p. 15, and as will be seen later in this Introduction, Romantic Nationalism shares this characteristic with pre-Modernity.

under control by means of the systematic development of scientific knowledge through observation, experiment and rational thought.[16]

This major shift in logic was initiated by the European Renaissance, which in time led to the new era of *Modernity* and Enlightenment: 'Modernity has its origins in the Renaissance'.[17] The process of industrial *modernization* subsequently arose from this epistemological transition, and as will be seen in Chapter Four, *modernism* constituted the artistic and cultural reaction to this new schema. Foucault also categorised this schism in his epistemological system as a move in the seventeenth century from the Renaissance to the Classical episteme.

The questions to be addressed are how knowledge and the method of knowing were altered with the arrival and subsequent development of the modern schema, and concomitantly, how these changes were reflected in the museum. As the Museum of Scotland is the principal case study in this thesis, it is felicitous to use its forerunner, the Royal Museum of Scotland,[18] as a source of practical exemplification here. The story of the formation of Scotland's first national museum is a long and complex one. The origins of what is now the Royal Museum of Scotland can be traced back to the earliest museological collection in Scotland: the natural history holdings of the University of Edinburgh.

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[16]BOHM, David. 'Postmodern Science and a Postmodern World', in JENCKS, Charles, (Ed.). 'The Post-Modern Reader', (London: Academy Editions, 1992), p. 383. See also section 3.1.
[17] WALSH, Kevin. 'The Representation of the Past. Museums and Heritage in a Post-Modern World', (London & New York: Routledge, 1992), p. 7.
[18]Starting life in 1854 as the 'Industrial Museum of Scotland', (IMS), ten years later in 1864, the institution was redesignated the 'Museum of Science and Art', (MSA). The title was altered again in 1904, to the 'Royal Scottish Museum', (RSM), until finally, in 1985, it assumed its present status of the 'Royal Museum of Scotland', (RMS).

Fig. 6. Edinburgh University main front (R. Adam, from 1789; including 1886-7 dome by R. Anderson), view of c. 1930.

This collection had its origins in the seventeenth-century holdings of Sir Andrew Balfour and Sir Robert Sibbald, and was gathered into a recognisable museum from 1767. As in other contemporaneous British collections, such as those at Oxford University and the Glasgow Hunterian, as well as that formed by the Hunter brothers in London, this collection had a strong anatomical leaning, and this new-found interest in man as a physical being was undoubtedly rooted in the humanism of the Italian Renaissance. By 1812, the Natural History Museum was officially founded in connection with the University of Edinburgh, with its collections, 'embod[ying] the spirit of discovery of the natural world in the late Renaissance, when geographical exploration of the New World stimulated interest in the environment at home'.[19] Indeed, as we will see subsequently, such 'geographical exploration', in the form of the geological survey, was instrumental in the formation of all three of the casestudy museums. As early as 1826, Robert Jameson, the then keeper of the collection, wrote to the Royal Commission about the need for improved accommodation and with the claim of national status for the collection: 'I am anxious that new accommodation should be speedily provided for the Royal Museum, which is not to be considered as a private department of the University but as a public department connected in some degree with the country of Scotland; it is the National Museum of

[19]ANDERSON, 'Museums in the Making', p. 1, in CALDER, Jenni. 'The Wealth of a Nation in the National Museums of Scotland', (Edinburgh: National Museums of Scotland, 1989).

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this country'.[20] Clearly the presence of a mature collection of artefacts within the University of Edinburgh was a major spur to the founding of the national museum. However, many other factors also contributed to its opening, such as the passing of a Parliamentary Bill which enabled places with a population of over 10,000 to erect museums of art and science, the 'influence of the Prince Consort',[21] and the very pressing need for a Scottish Geological Survey to complement those which were already proceeding in England, Wales, and Ireland. The greatest stimulus on the formation of a national museum though, was the unbridled success of the Great Exhibition of 1851, which showcased many Scottish manufactures and thus brought the industrial arts to prominence. The substantial profits from this Exhibition were used to fund a new Industrial Museum, which subsequently merged with the University collection. These factors, along with a multitude of smaller developments, led to the decision that, 'the natural history collections of the University would form the foundation of the national collections which would be housed in a new building'.[22] As a result, the Industrial Museum of Scotland opened in 1854, with the 'industrial exhibits [being] housed in several old buildings on the south and west sides of the [present Chambers Street] site'.[23] In the same year a first grant of £7000 was made by the British Government for the purchase of a site in Argyle Square, an ideal location, being adjacent to the University College, and the erection of a new building, although the intervention of the Crimean War delayed building works. By 1862 however, the project was back on track, and the new Director, Thomas Archer, charted developments in the Museum's Annual Report:

> The past year has in all probability been the most important in the history of this Museum. On the 13th of May the contract was signed for the erection of the first portion of the new structure designed by Capt. Fowke, R.E. Since that time the building has been carried on under the superintendence of Mr. Robt. Matheson, of Her Majesty's Board of Works.
> On the 23rd of October the foundation stone was laid by His Royal Highness's last act of this nature.[24]

[20]Evidence, Oral and Documentary, taken and received by the Commissioners ... for Visiting the Universities of Scotland, I, University of Edinburgh, London 1837, p. 144, in WATERSTON, Charles D. 'Collections in Context. The Museum of the Royal Society of Edinburgh and the Inception of a National Museum for Scotland', (Edinburgh: National Museums of Scotland, 1997), p. 81. No doubt this urge to acquire a national museum for Scotland was at least partially driven by the formation of the British Museum, 'Britain's first national museum', [Ibid., p. 82.], in 1753, and subsequently, the Irish Museum of Economic Geology, in Dublin in 1845.

[21]Ibid., p. 86.

[22]Ibid., p. 99.

[23]'The Royal Scottish Museum. A Short History of the Building', (Edinburgh: National Museums of Scotland, year unknown), p. 1.

[24]ARCHER, Thos. C., Superintendent. 'The Annual Report on the Industrial Museum of Scotland', (Edinburgh: January 1st, 1862).

After the seven year delay which occurred before the foundation stone of the new building was laid by the Prince Consort, there followed a further five year impasse before the new Museum of Science and Art, designed by Captain Francis Fowke, was finally opened to the public in 1866.
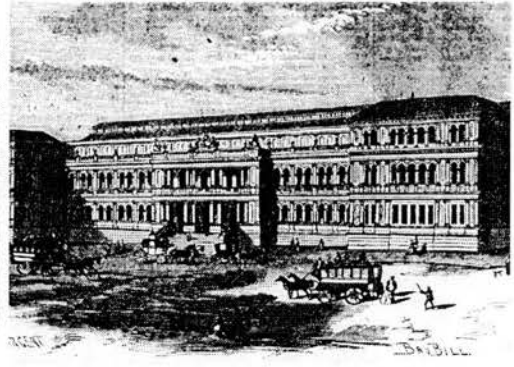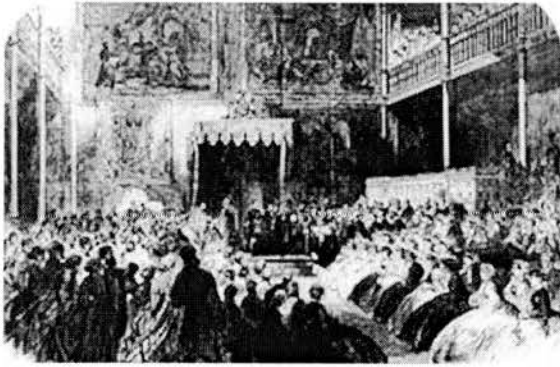
Fig. 7. Contemporary depiction of Prince Alfred opening the Museum, from the *The London Journal.*
Fig. 8. Picture from *The Illustrated London News* of the Chambers Street façade of the Industrial Museum of Scotland at the time of its opening.

The RMS in many ways typified the evolved modern museum, with its transformed knowledge and method of knowing. To quote Foucault:

> ...the idea of accumulating everything, of establishing a sort of general archive, the will to enclose in one place all times, all epochs, all forms, all tastes, the idea of constituting a place of all times that is itself outside of time and inaccessible to its ravages, the project of organising in this sort of perpetual and indefinite accumulation of time in an immobile place, this whole idea belongs to our modernity.[25]

Undeniably, man has been subject to a fundamental urgency to collect or amass which is age-old: 'Noah was the first collector'.[26] Indeed, in any psychoanalytical reading, the desire to gather, stockpile, and secure is regarded as intrinsically human. This urge had its origins in necessity and its continuance, as has been demonstrated already in the case of Medieval nobility, in the pursuit and maintenance of power, but was transformed with the coming of modern science and the age of Enlightenment. In the era of pre-Modernity, such accumulation was a random process with no aim at inclusivity, comprehensiveness, or representativeness. However, as described by Foucault above, in the early stages of Modernity a new

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[25]FOUCAULT, Michel, "Of other spaces", *Diacritics*, Spring.
[26]ELSNER, John, and CARDINAL, Roger, (Eds.). 'The Cultures of Collecting', (London: Reaktion Books, 1994), p.1.

desire for completely full and comprehensive collections emerged.[27] This wish to encapsulate the complete range of material culture from past and present can be discerned in some of the early Industrial Museum of Scotland reports. For example, the museum 'Directory' of 1854 elucidates the four categories of collectable objects, and although these are systematised to a degree, the inclusivity and non-selectivity are striking.[28]

It was not long, however, before this obviously impractical and infeasible aim of completeness was widely questioned, as in the following amusingly sarcastic extract from an article which appeared in the Scotsman in 1861:

> What is a Museum? is a question that has received many answers. Some say a collection of curiosities; others a collection of things curious or useful; and others, as we learn from two thick blue-books just published - the Report on the South Kensington Museum and the Report on the British Museum - a duly classified and catalogued assemblage of everything natural or artificial that exists on earth. Fortunately there are no roads to the other planets, or these gentlemen would have proposed a special room for the domestic architecture of the natives of Jupiter, and another for the uniforms worn by the trainbands or rifle brigades in Mars.[29]

It was the strong compulsion to exhibit every available object, regardless of its scientific, educational or other value, which existed in the early years of Modernity, which the author of the Scotsman article was mocking so scathingly,[30] and he went

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[27] Compare this with the Pitt-Rivers Museum, to be discussed later in this Introduction.

41   Firstly, such finished products as wrought iron, steel, glass, porcelain, paper, leather, cotton, linen, woolen and silken tissues, naphtha, sugar, sulphuric acid, soap, bleaching powder, lucifer matches, and the like.

   Secondly, all the intermediate bodies which intervene between such products and their raw materials: for example, between iron ore and steel, between sand and glass, between clay and porcelain, between rags and paper, between skins and leather, between textile fibre and cloth, between coals and naphtha, cane juice and loaf sugar, sulphur and oil of vitriol, palm oil and soap, common salt and bleaching powder, burnt bones and lucifer matches.

   Thirdly, the tools machines, and apparatus required for the conversion of raw materials into finished products...

   Fourthly, those forms of apparatus which are employed in the application to useful purposes of finished products, and in the exercise of what may be called the dynamical industrial arts... ['Directory of the Industrial Museum of Scotland', (Edinburgh: Industrial Museum of Scotland, 1854)].

[29] The Scotsman, Saturday, July 6, 1861.

[30] Indeed, maybe such derision was necessary and desirable, as in John Elsner's and Roger Cardinal's view,

on to warn against the adoption by the IMS of such inclusive, non-judgmental, and non-hierarchical display policies:

> One most important practical result of the mass of evidence in these two reports - a result perhaps more applicable to our museum in Edinburgh than to those in London - is that their objects and limits should, from the beginning, be strictly and clearly defined. They must not be made to contain everything that everybody would wish or expect to see in them, but only those things that are clearly essential to their aim and object. It is no justification of extravagant expenditure of space and money that some person would expect to see such things in the museum, or even that they have been turned to some profitable commercial result.[31]

In the light of such contemporary awareness and changing perceptions, the IMS began to use the criteria of 'typicality' or 'representativeness' to control the number of exhibits for display. As again articulated by a journalist in the Scotsman, similar objects were gathered together, and only the best or most representative example of each such type was selected and included in the exhibitions:

> This character, [or criteria of selection] as the Committee on the British Museum admits in reference to natural history, can only be that the collections are "typical", not complete - that is, shall "consist of specimens illustrative of the leading points both of popular and scientific interest," not of every specimen which the naturalist or amateur might wish to see and possess.[32]

Therefore, after an initial desire for exhaustive collections, new goals of limitation and typicality became the aim of the modern museum. And subsequently, in the continuation and refinement of these aims, the fundamental and definitive criteria of Modernity emerged.

The paradigmatic shift which occurred at this time was the definition and provision of knowledge by difference rather than similarity. In the pre-modern era, differences were of course recognised, but these were far out-weighed by the vast matrix of resemblances which conjoined the objects of the world. Conversely, in the modern era, it may have been necessary to begin by drawing similarities, but the real work of

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The Holocaust is collecting's limit case; for it combines the pathology of the compulsive individual, who will not compromise to attain his end and who innovates by finding a perversely new series to be collected, with all the norms and powers of totalitarianism. Yet one wonders whether the latterday Nazi hunters, fifty years on, are not possessed of the same collector's zeal. [ELSNER and CARDINAL, (Eds.), 'The Cultures of Collecting', p. 4].

[31]*The Scotsman*, Saturday, July 6, 1861.
[32]Ibid.

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separation and classification was then enabled by the study of the differences and deviations apparent. The pre-modern occupation with resemblances was reversed in the modern era, generating a knowledge based on contrariety: 'The activity of mind, knowing, was no longer to consist of drawing things together, but in setting things apart, in discriminating on the basis of difference, rather than in joining on the basis of similitude.'[33] This major reversal of focus in turn led to the introduction of specialisation, classification, and the use of hierarchical series.[34]

Specialisation was indissociable from the new primacy given to differentiation, and society witnessed the re-emergence from classical times of categorisations in science, arts, and humanities, which have remained in place right up to the present day. This division of the world into its essential components opened up a vast number of avenues for exploration and research, which had been buried in the complex and holistic pre-modern world. These individual areas were now perceived to require specific attention and modes of investigation, and as such the Medieval, Renaissance generalist became obsolete. Within the new modern framework, it now seemed appropriate for scholars to restrict themselves to certain specialisms, and as the modern age has progressed, these fields of interest have tended to become ever more precisely defined and restrictive.[35] Even before the inauguration of the Industrial Museum of Scotland in 1854, one of its constituent collections, the University of Edinburgh's natural history holdings, had been subdivided into three categories or specialisations: zoology, mineralogy, and geology. Subsequently, at the IMS and its successor the MSA, the initial rationalist impulse for inclusivity soon gave way to such specialisation, with the desire for encyclopaedic representation apparent at its inception waning at a rate inversely proportional to the rising inclination towards specialisation. Indeed, within the first twenty years of the Museum's history, the demand for a comprehensive and inclusive collection of artefacts abated, with *specialisation* and *classification* becoming increasingly forefronted.[36] The emphasis and import of each artefact shifted from its rarity to its representativeness, with the associated shift of significance from the individual object to the series or collection.

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[33]HOOPER-GREENHILL, 'Museums and the Shaping of Knowledge', p. 15.

[34]See the discussion of the classificatory work of Linnaeus and Cuvier in section 3.4.

[35] For example, in the seventeenth century, 'physics' would have comprised a specialist subject, whereas today it is an over-arching term encompassing hundreds of separate specialisms.

Within such specialisms, systems of classification were then used, with artefacts ordered around various different normative functions. As early as 1857, the already 'specialised' collection of the Industrial Museum was divided into the following departments, or classifications: useful minerals; metallurgical series; models, machines and tools; ceramic series; glass; chemical reagents; gutta percha; textiles and animal products. By 1869, the natural history section in particular had been divided into different displays for the different families and genera of plants, animals, and minerals. Examples of such include minerals, reptiles, fishes and invertebrate animals, insects, birds, shells, and mammalia. Grounded in the recent developments of Darwinian and Cuvierian theories, taxonomic classification was a crucially divisive tool, with different animal and plant kingdoms being separated into different collections, and more importantly, the individual exhibits themselves being ordered in relation to their taxonomic grade and nomenclature within the whole. Indeed, the grand-narrative of Darwinian theory may even have been a principal generator of the entire episteme of Modernity. One does not need to look very hard to find a plethora of examples of this use of Darwinian and Cuvierian taxonomic classification within the exhibitions of the Royal Scottish Museum, such as is described in the following extract of the Museum's Annual Report from 1922-23: 'The rectifying of the disarrangement (of Brachiopods or Lamp-Shells) then caused has now been taken in hand; the series of representative specimens has been completed, and the work of labeling with short diagnostic descriptions has made good progress.'[37]

Beyond the field of natural history however, the most common such function of classification was that of time, with articles being given meaning within a chronological sequence or narrative.[38] Within the Museum of Science and Art, examples of such temporally segregated or sequential arrangements are numerous, with Mr. Ogilvie writing in his report for 1902, 'among minor additions I would note the electrotypes of British historical medals in the British Museum; these, arranged

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[36]MURRAY, David. 'Museums: Their History and Their Use', (Glasgow: James MacLehose & Sons, 1904), p.231.

[37]CURLE, Alex O. 'Report for the Year 1922-23 on the Royal Scottish Museum', (Edinburgh: Royal Scottish Museum, 1923).

[38]An excellent general example of this temporal classification occurred in archaeology with the breakdown of prehistory into the Stone, Bronze, and Iron Ages, and interestingly, Scotland was at the forefront of this development: 'In Britain, Enlightenment archaeology took hold in some areas. Notably, the Scottish antiquarian Daniel Wilson (1816-92), influenced by Worsaae, used the Three-Age System to organise the artefacts which belonged to the Society of Antiquaries of Scotland in Edinburgh.' [WALSH, 'The Representation of the Past', p. 3].

in chronological order, are of interest alike to the art-student and as marking the more important events in the history of Britain.[39] Geography, or the location of collection or manufacture of articles, was also an important classificatory tool which was used repeatedly. The same report of 1902 states that, 'a special case has been devoted to the illustration of the geology of the Tertiary Eruptive rocks of Skye, and progress has been made in the revision and rearrangement of the cases devoted to the geology of Inverness, Sutherland, Ross, and Cromarty.'[40] This approach to display was reversed by the explorer and collector A.H. Lane-Fox Pitt-Rivers, who by displaying items of similar usage from different countries adjacent to each other, attempted to stress the superiority of European imperialist culture. In addition to those already mentioned, many other classificatory systems were also used to regulate and order the collections into facets and series, and more often than not, more than one of such separating devices were used together to create a binary or tertiary classificatory system. In the following passage from the Museum's 'Annual Report' of 1870, the deployment of both specialisation and classification is clearly articulated and related:

> I have specially directed my attention, and the energies of the officers of the Museum, to a careful revision of the classification of the various collections, especially those in the Natural History Department, so as to bring them up to the latest improvements and discoveries, and to placing them so completely before the public eye as to be available in supplying, as far as they are capable, a means for meeting the educational requirements of the day. With this view I have had the entire collection of invertebrate animals re-arranged and placed in permanent cases; and the same also has been done with the fossils, the collection of which is very extensive. I have also devoted every hour I could spare to the collection of minerals, now probably second only in Britain to that of the British Museum, and hope early in this year to have it completed. These three classes of objects are therefore available for the use of professors, teachers, and students; and the numbers of those who use them are continually increasing.[41]

Such specialising and classificatory objectives as were recognised by the Museum's Director, Thos. C. Archer, in 1870, eventually found their way into Government policy, as the introduction of the Museum and Public Library Acts in the latter part of the century led to; 'order and system coming out of chaos.'[42] The Acts called for

[39]OGILVIE, F. Grant. 'Report for the Year 1902 on the Edinburgh Museum of Science and Art', (Edinburgh: Museum of Science and Art, 1902), p.3.
[40]Ibid., p.4.
[41]ARCHER, Thos. C. 'Report on the Condition and Progress of the Edinburgh Museum of Science and Art for 1870', (Edinburgh: Museum of Science and Art, 1870).
[42]BENNETT, 'The Birth of the Museum', p.2.

'specialisation and classification',[43] and conceptualised the museum experience to an extent previously unknown. Such criteria are now understood to be the theoretical framework upon which the theory of the modern museum is assembled:

> The birth of the museum is coincident with, and supplied a primary institutional condition for, the emergence of a new set of knowledges - geology, biology, archaeology, anthropology, history and art history - each of which, in its museological deployment, arranged objects as parts of evolutionary sequences (the history of the earth, of life, of man, and of civilization) which, in their interrelations, formed a totalizing order of things and peoples that was historicized through and through.[44]

Knowledge, therefore, can be seen to have undergone a transformation, characterised by the articulation of differences, specialization, classification, and the relative position of objects within a hierarchy or scale: 'Its [the Classical episteme's] founding structure was that of order, through measurement and the drawing up of hierarchical series. The classificatory table emerged as the basic structure of knowledge (Foucault, 1970: 74).'[45] However, crucially, new methods of knowing were required in order to effectuate such modern knowledge, and these took the form of reductionism and objective analysis. Reductionism, or the reduction of complex wholes to their smallest constituent parts, was apparent to an extent in the natural sciences, but it was in the newly emerging field of Cartesian mechanism where it was really utilised to its full extent. Indeed, this method of Cartesian mechanism was and still is the ascendant one of the modern era, with David Bohm believing that it, '...reached its highest point toward the end of the nineteenth century' and continuing, 'this view remains the approach of most physicists and other scientists today.'[46] In his book 'The Order of Things', Foucault postulates many possible reasons for the birth of this movement at that time, of which the new prominence given to observation by the invention of the microscope, 'the recently attained prestige of the physical sciences, which provided a model for rationality', and increased interest in exotic plants and animals seem to be the most convincing.[47] The other technique integral to the new episteme of Modernity was objective analysis. This was absolutely crucial to the formation of the new knowledge, as it defined the way in which differences should be sought, elements should be reduced

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[43]MURRAY, 'Museums: Their History and Their Use', p.231.
[44]BENNETT, 'The Birth of the Museum', p. 96.
[45]HOOPER-GREENHILL, 'Museums and the Shaping of Knowledge', p. 15.
[46]BOHM, 'Postmodern Science and a Postmodern World', p. 385, see section 4.
[47]FOUCAULT, Michel. 'The Order of Things. An Archaeology of the Human Sciences', (London: Routledge, 1974), p. 125.

in order to obtain simplicity and clarity, and hierarchical series should be built up. It was the yardstick by which all modern inquiry was to be tested. Only common-sensical and obvious to the 'modern' mind, this actually represented a huge shift from a world where subjective experience, which was often emotional and idiosyncratic, was the dominant structure. Where previously no verification of ideas or observations was deemed useful or necessary, this was now the basis of the entire knowledge or schema. Kevin Walsh explains the importance of such objectivism to Modernity and links this to the notion of the meta-narrative:

> Modernity has its origins in the Renaissance, and the emergence of modern science - the discovery of 'truths' and 'facts', or rather claims for the possibility of objective truths about the world and 'Man's' place within it. The 'meta-narratives' which emerged during the modern epoch were essentially discourses which implied a rigid objectivism, and through this, the potential of a thorough analysis of the world. Such meta-narratives might include Darwin's Theory of Evolution and Marx's analysis of capital. Modernism can thus be considered as a set of discourses concerned with the possibilities of representing reality and defining eternal truths.[48]

By creating a system to test knowledge, modern society was reassured that its truths were absolute.[49] The introduction of new and objective methods for the analysis of artefacts began early in the Museum of Science and Art and continued to flourish in the Royal Scottish Museum. However, it was only by the second half of this century that fundamentally objective methods were available for the analysis of exhibits. The discovery and use of modern scientific means of study such as thermoluminescence, radiocarbon dating, dendrochronology, X-ray fluorescence, and neutron activation, for example, are all totally quantifiable and as such are absolutely objective within the terms of the scientific knowledge of Modernity.[50]

Considering a wider perspective now, with the onset of the modern schema the long-held theological belief that the world was completely beyond human comprehension was replaced by a conviction that science was the appropriate tool with which to unravel the complexities of life, laying them bare to human scrutiny. Unlike in the pre-modern past, it was now believed that a full knowledge of the world was an achievable aim. This conviction is also incorporated by Foucault into his epistemical

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[48]WALSH, 'The Representation of the Past', p. 7.
[49]The fact that this objectivist system was itself a 'man'-made phenomenon, and therefore liable to be flawed, appeared to be entirely forgotten or disregarded.
[50]FENTON, Alexander. 'Essential Evidence: The Material Culture of Scotland', in CALDER, 'The Wealth of a Nation', p. 20.

system, as he believes that the pessimistic view of the pre-modern era altered radically with the onset of the Classical episteme. He cites such optimism as having several sources. Firstly, the change in focus from a world of similarities to a world of differences enabled the use of hierarchical series and classificatory tables. Secondly, much of what was of interest during the Renaissance episteme, such as the realm of the invisible, myths, and hearsay were all totally disregarded: understanding was believed to be possible as, 'the classical *episteme* set itself a more restricted project.'[51] Thus within the knowledge of the modern era, unlike that of the pre-modern, complete understanding became a realistic, and as Theodor Adorno explains, highly desirable aim: 'Man imagines himself free from fear when there is no longer anything unknown. That determines the course of demythologization, of enlightenment, which compounds the animate with the inanimate just as myth compounds the inanimate with the animate. Enlightenment is mythic fear turned radical.'[52]

As well as the reasons forwarded by Foucault outlined above, two other particular factors are closely connected with this optimism in a total knowledge: the idea of a closed narrative; and the idea of progress. Firstly, both a cause and effect of this belief in complete understanding is the modernist use of the single, linear, and closed meta-narrative, complete in parts, and showing the route towards completion where this is not already the case. Within this structure, questions are answered with a single 'valid' interpretation, with other histories being ignored, silenced, or misrepresented.[53] Along with this Enlightenment notion of a singular, unchallenged history, the idea of history as a concluded project was also prevalent and much subscribed to. Kevin Walsh explains this conception of a discrete and finalised view of the past:

> Since the nineteenth century representations of the past have, perhaps unwittingly in most cases, contributed to a form of institutionalised rationalisation of the past. As people have been distanced from the processes

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[51]HOOPER-GREENHILL, 'Museums and the Shaping of Knowledge', p. 15.

[52]ADORNO, Theodor, and HORKHEIMER, Max, [translated by John Cumming]. 'Dialectic of Enlightenment', (London & New York: Verso, 1944, 1992), third edition, p. 16.

[53] As we will see subsequently however, with reference to the casestudy museums, this framework has been challenged by the new episteme of post-Modernity, the condition of which, to quote Giddens, '...is distinguished by an evaporating of the "grand narrative" - the overarching "story line" by means of which we are placed in history as beings having a definite past and a predictable future. The post-modern outlook sees a plurality of heterogeneous claims to knowledge, in which science does not have a privileged place.' [GIDDENS, Anthony. 'The Consequences of Modernity', (Cambridge: Polity Press, 1990), p. 2.]

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which affect their daily lives, the past has been promoted as something that is completed, and no longer contingent upon our experiences in the world.[54]

The second way in which the museum echoes the optimism of the new modern era in finding a complete knowledge is in its implicit belief in the notion of progress: 'Rarely has a single idea played so central a part in an intellectual world. To begin to understand that world requires that we recognise the significance of the idea of progress within it.'[55] As Walsh explains, 'The modern world opened up new horizons of expectation, legitimated through an omnipresent idea of progress.'[56] This notion of progress had its roots in Enlightenment thinking and then was made manifest physically through the changes brought about by the process of industrialisation. Indeed, the resulting shift of the populace from settled rural communities to new and transient urban places, 'resulted in a conception of the past which was dominated by change - progress towards the ever more modern world.'[57] Thus, progress was caused by Enlightenment ideas and was brought into effect by the Industrial Revolution. However, regardless of how and why it happened, progress was to become a seminal feature of the modern era:

> An essential proposition of modern thought is an idea of progress, a belief that developed as a constituent part of Enlightenment thinking, and provided modern thinkers with a faith in the ability of humankind to manipulate and exploit their environments for the benefit of society. Such a society could escape from the debilitating elements of the past, and could move ever forward to new horizons. If modernity has a particular essence, it is a belief in rational advancement through increments of perpetual improvement.[58]

Upon inspection it is revealed that the narrative projected by the Royal Scottish Museum was always implicitly and sometimes explicitly ordered around the idea of a progressive development of society and nature from a state of non-comprehension and chaos, to a state of understanding. However, although a definite curatorial subtext of the IMS, the MSA, and the RSM, this desire for a progressive narrative was espoused more explicitly in the private collection of Pitt-Rivers, who wrote in 1875, '...ordinary and typical specimens, rather than rare objects, have been selected and arranged in sequence, so as to trace, as far as practicable, the succession of ideas by which the minds of men in a primitive condition of culture have progressed from

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[54]WALSH, 'The Representation of the Past', p. 2, see also the discussion of heritage in section 4.3.
[55]SPADAFORA, D. 'The Idea of Progress', (U.S.A.: Yale University Press, 1990), p. 415.
[56]WALSH, 'The Representation of the Past', pp. 2, 3.
[57]Ibid., p. 12.
[58]Ibid., p. 7.

the simple to the complex, and from the homogeneous to the heterogeneous'.[59] This ideology of improvement was taken to extremes in the Pitt-Rivers Museum, most startlingly, in its transposition onto the classification of human remains, which were, 'displayed as parts of evolutionary series with the remains of still extant peoples being allocated the earliest position within them'.[60] This 'representation of 'primitive peoples' as instances of arrested development, as examples of an earlier stage of species development which Western civilizations had long ago surpassed',[61] is a clear instance of a dominant, white, imperialist mindset, which will be of relevance again later. In general, 'Progression through the exploitation of the environment, combined with a faith in humankind's dominant position in the scheme of things, must be central to any appreciation of modernity.'[62]

The dialectic of Romantic Nationalism and Modernity, as illustrated by the museology of contemporary museums and collections.

While it is clear that a decisive epistemological transition occurred with the birth of Enlightenment thought in the eighteenth century, it would be a major mistake to presume that a 'clean break' occurred at this time. Rather, a complex dialectic resulted, which is fundamental to this thesis.

Karl Popper writes in his book, 'Conjectures and Refutations: The Growth of Scientific Knowledge': 'Dialectic (in the modern sense, i.e. especially in the sense in which Hegel used the term) is a theory which maintains that something - more especially, human thought - develops in a way characterized by what is called the dialectic triad: thesis, antithesis, and synthesis.'[63] Thus, within such a dialectical structure, 'thesis' and 'antithesis' are mutually dependent and sustaining, and cannot exist independently if a synthesis is to result. Transposing this theory onto the situation in question, it becomes clear that the mythology and irrationality of the pre-

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[59] LANE-FOX, Col. A. 'On the Principles of Classification Adopted in the Arrangement of his Anthropological Collections, now Exhibited in Bethnal Green Museum', *Journal of the Anthropological Institute*, no. 4, pp. 293-4, in BENNETT, 'The Birth of the Museum', p. 43.
[60] BENNETT, 'The Birth of the Museum', p. 79.
[61] Ibid., p. 78.
[62] Ibid., p. 8, and see also section 3.1.
[63] POPPER, Karl R. 'Conjectures and Refutations: The Growth of Scientific Knowledge', (London: Routledge, 1989), p. 313.

modern episteme produced an antithesis of enlightened rationality, differentiation, and objectivism. The Enlightenment drew on the pre-modern world of myths and would have been entirely impotent without its contradictory, antithetical flow. This symbiotic relationship was set forth by Adorno and Max Horkheimer as early as 1944 in their publication, 'Dialectic of Enlightenment': 'Just as the myths already realize enlightenment, so enlightenment with every step becomes more deeply engulfed in mythology. It receives all its matter from the myths...',[64] and then this mutually dependent relationship is further emphasized as follows:

> ...Every spiritual resistance it [enlightenment] encounters serves merely to increase its strength. Which means that enlightenment still recognizes itself even in myths. Whatever myths the resistance may appeal to, by virtue of the very fact that they become arguments in the process of opposition, they acknowledge the principle of dissolvent rationality for which they reproach the Enlightenment. Enlightenment is totalitarian.[65]

In this reading, the mythological or pre-modern world view, rather than ceasing with the advent of the Enlightenment, persisted into the new era providing its very foundations: 'Mythology itself set off the unending process of enlightenment in which ever and again, with the inevitability of necessity, every specific theoretic view succumbs to the destructive criticism that it is only a belief - until even the very notions of spirit, of truth and, indeed, enlightenment itself, have become animistic magic.'[66] This mutually sustaining duality has been put into real terms by Glendinning et. al., who claim that, 'In the Scottish context, this growing pride in the nation's past was closely bound up with pride in the improving, imperialist present'.[67]

Considering the forum of the museum, and in particular the methodology of collection and display, it is revealing to find that evidence or remnants of the pre-modern approach to museology remained a strong and visible counter-current to the new, rational museums of Modernity, as exemplified by the Industrial Museum of Scotland and its successors. Indeed, one could say that the continuation of this type of museum was a necessary foil to the new classificatory museums of Modernity,

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[64]ADORNO and HORKHEIMER, 'Dialectic of Enlightenment', pp. 11, 12.
[65]Ibid., p. 6.
[66]Ibid., p. 11.
[67] GLENDINNING, Miles, MACINNES, Ranald, and MACKECHNIE, Aonghus. 'A History of Scottish Architecture from the Renaissance to the Present Day', (Edinburgh: Edinburgh University Press, 1996), p. 237.

illustrating Adorno's conception of the symbiotic relationship between myth and enlightenment.

Evidence of this is related in the following passage taken from the 1888 publication 'Museums and Art Galleries', by Thomas Greenwood, which graphically describes the disarray and cluttered jumble which permeated many museums in Britain's smaller towns right up to the end of the nineteenth century:

> The orderly soul of the Museum student will quake at the sight of a Chinese lady's boot encircled by a necklace made of shark's teeth, or a helmet of one of Cromwell's soldiers grouped with some Roman remains. Another corner may reveal an Egyptian mummy placed in a mediaeval chest, and in more than one instance the curious visitor might be startled to find the cups won by a crack cricketer of the county in the collection, or even the stuffed relics of a pet pug dog.[68]

From this description, a definite culture of curiosities can be seen to have pervaded Modernity and have existed side by side with the new order. Indeed, in the eighteenth and early nineteenth centuries, museums were often the domain of the bizarre, the gruesome or simply, the 'other'. Evolving in part from the chaos and transience of the fair, depicted in Figure 9 at the Southwark Fair of 1733, and later the amusement park,
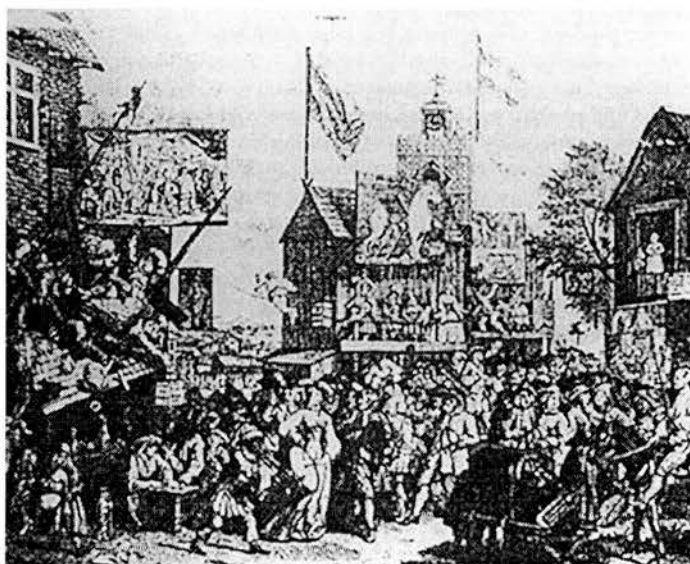
Fig. 9. Southwark Fair, 1733.

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[68]GREENWOOD, Thomas. 'Museums and Art Galleries', (London: Simpkin, Marshall and Co., 1888), p.2.

many museums likewise reveled in the freakish, a propensity which can be traced back to the 'cabinets de curieux', which were located more firmly within the realm of enjoyment than of education.[69] This pre-modern interest in artefacts for their singularity or oddity rather than their typicality, was sometimes taken to grotesque extremes, as in the following description of the museums at Dresden and Leyden written by David Murray in 1904:

> For example, the anatomical collection at Dresden was arranged like a pleasure garden. Skeletons were interwoven with branches of trees in the form of hedges so as to form vistas. Anatomical subjects were difficult to come by, and when they were got, the most was made of them. At Leyden they had the skeleton of an ass upon which sat a woman that killed her daughter; the skeleton of a man, sitting upon an ox, executed for stealing cattle; a young thief hanged, being the Bridegroom whose Bride stood under the gallows...[70]

The Industrial Museum of Scotland, and all its subsequent manifestations, never subscribed to such theories and practices of display, being grounded rather in the modernising and systematising rationale of Modernity. The establishment in Edinburgh, as in London, rejected such populist, irrational, and uneducational models, as illustrated by the 'refusal to allow the exhibition of the 'preserved remains of Julia Pastrana, half woman, half baboon, the oldest loaf in the world and a man-powered flying machine' at the South Kensington Exhibition of 1862 because of their fairground associations.[71] However, such scenes as those encountered in Dresden and Leyden were typical of those experienced by museum visitors of this period, and aptly demonstrate two points: firstly, that exhibits were still often chosen for their individuality or uniqueness, rather than their typicality or representativeness as enlightenment thinking had proposed; and importantly, that unlike in the museums of Modernity, the exhibits were arranged in an inexplicable, random order, showing

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[69]Indeed, '...Murray argued, pre-modern museums were more concerned to create surprise or provoke wonder. This entailed a focus on the rare and exceptional, and interest in objects for their singular qualities rather than for their typicality, and encouraged principles of display aimed at a sensational rather than a rational and pedagogic effect'. [BENNETT, 'The Birth of the Museum', p. 2.]
[70]MURRAY, 'Museums: Their History and Their Use', p. 208.
[71]GREENHALGH, Paul. 'Ephemeral Vistas: The Expositions Universelles, Great Exhibitions and World's Fairs, 1851-1939', (Manchester: Manchester University Press, 1988), in BENNETT, 'The Birth of the Museum', p. 255. However, this hankering for the gruesome has never quite been eradicated, as can be seen from a photograph, which appeared in the Scotsman in October, 1976. It showed a relic of Edinburgh's body-snatching era, the skeleton of William Burke of the infamous Burke and Hare partnership, which formed part of that year's, 'Edinburgh and Medicine' exhibition.

little or no rational organisation. Indeed, the rational specialisation and classification of concurrent modern museums was entirely absent.[72]

The dialectic of Modernity and Romantic Nationalism as illustrated by the depiction of national identity within contemporary museums and collections.

The final major leitmotiv to be introduced is that of the modern nation-state:

> Like anthropology and sociology, museums are products of modernity and their development is deeply implicated in the formation of the modern nation-state. Like anthropology and sociology, museums are also technologies of classification, and, as such, they have historically played significant roles in the modernist and nationalist quest for order and mapped boundaries.[73]

The social and political theorist Anthony Giddens has defined the nation-state as, 'a collectivity existing within a clearly demarcated territory, which is subject to a unitary administration, reflexively monitored both by the internal state apparatus and those of other states',[74] and this definition was substantially echoed by Anthony Smith, who interpreted it as, 'a named population which shares myths and memories, a mass public culture, a designated homeland, economic unity and equal rights and duties for all members'.[75] Crucially, the emergence of the nation-state was coincident with the shift to Modernity. Indeed, according to Smith, the nation-state did not and could not exist before the episteme of Modernity, because of its reliance upon the 'specifically modern conditions of capitalism, industrialism, bureaucracy, mass communications and secularism',[76] produced by those major catalysts and manifestations of Modernity: the Reformation; the French Revolution; the intellectual Enlightenment, and the Industrial Revolution. The French Revolution, out of which the French Republic was formed in 1793, was undoubtedly the spark that ignited wider change, although a considerable period elapsed before its full

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[72]The combined effect of these features was to deny the museum any conceptual or intellectual framework, and in doing so, to heighten the opticality of the experience.
[73]MACDONALD, Sharon, and FYFE, Gordon (eds.). 'Theorizing Museums. Representing Identity and Diversity in a Changing World', (Oxford & Cambridge: Blackwell Publishers, 1996), p. 7.
[74]GIDDENS, Anthony. 'The Nation-State and Violence. Volume Two of a Contemporary Critique of Historical Materialism', (Cambridge: Polity Press, 1985, 1987), p. 116.
[75]SMITH, Anthony D. 'Nations and Nationalism in a Global Era', (Cambridge: Polity Press, 1995, 1996), pp. 56,57.
[76]Ibid., p. 29.

effects were felt. Smith proposes that following this revolution, the watershed in the formation of nation-states occurred in waves, '…the first, which flourished from 1830 to 1870, [being] a democratic mass political nationalism of the 'great nations' stemming from the citizenship ideals of the French Revolution'.[77] Modern-day Belgium was created between 1830 and 1831. In America, although thirteen colonies under English rule had made the Declaration of Independence in 1776, the United States was formed only after the War of American Independence, waged from 1861 to 1865, in which the northern states defeated the south. A united kingdom of Italy was proclaimed in 1861, and this achieved complete national and political congruence following the unification of 1870. In 1867, Hungary gained autonomy with the establishment of a dual monarchy with Austria, and in the same year, the Dominion of Canada was established. By 1871, Germany had also united under the leadership of Prussia, after the Franco-Prussian War. Moving into the twentieth century, Norway and Czechoslovakia gained the status of nation-state, and in the southern hemisphere, after the surrendering of Maori sovereignty in 1840, and its eventual subdual by 1870, New Zealand became a dominion in 1907.

Where does the museum fit into this new frame of reference created by Modernity and the nation? Put simply, with the inception of modern Enlightenment ideas, the public, national museum was born and became the principal museum type. Placing this transformation in time, Tony Bennett writes, 'the public museum, as is well known, acquired its modern form during the late eighteenth and early nineteenth centuries'.[78] This transition from an exclusive culture of collecting based around the private patron, to a public one centred on the nation-state, is clearly demonstrated when one considers the number of national museums being instigated in Britain and beyond at that time. The British Museum was founded in the latter part of the eighteenth century and moved to its present home, a Greek Ionic edifice by Robert Smirke, in 1846.[79] The National Museum of Ireland was inaugurated in 1890, and as we have seen, its Scottish equivalent, the IMS, opened in 1854. In America, similarly, the idea of a national museum can be traced back to 1792, following an appeal by the famous collector, Peale. In France, the King's own collection was placed on open display in the Grande Galerie of the Louvre in 1793, and:

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[77] Ibid., p. 11.
[78] BENNETT, 'The Birth of the Museum', p. 19.
[79] Smirke was born in 1780, and died in 1867.

it was in this political context that the Hermitage in St. Petersburg opened (1764), then the Nationalmuseet in Stockholm (1772), the Museo Pio-Clementino in Italy (1772), then the Belvedere in Vienna (1784), and in which plans were developed for a Polish national museum in 1775, and a Spanish national museum in 1787.[80]

Despite this transmutation in its type, the museum maintained its previous power and influence, merely shifting its focus. Collections that had previously been intended as, 'demonstrations of royal power, [and] symbols of aristocratic or mercantile status',[81] began rather to be managed in order to accentuate national cohesion and ascendancy. Or, as Bennett explains, 'the wealth of the collection is still a display of national wealth and is still meant to impress. But now the state, as an abstract entity, replaces the king as the host.'[82] The museum began to occupy the imagined and invented space of nation. Indeed, the dependency of the nation for its legitimisation on the forum of the museum was, and still is, substantial, with the museum often functioning as a reduced spatial representation of the nation.[83] In this sense, the unrepresentable is represented within the museum, through the depiction and illustration of the 'imagined community' of nation.[84] From the outset, such museums were intended to gel and represent the image and identity of the nation, and as such, Modernity, the museum, and the nation or nation-state were intrinsically bound together in a powerful triangle of mutually-corroborative complicity.

Crucially to this thesis, the dialectic between myth and enlightenment, discussed previously was also present in the depiction of nation or national identity within these new national museums. The deliberate projection of both the scientific objectivism of Modernity and the alluring mythology of Romantic Nationalism are observable within these new national museums.

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[80]PRÖSLER, Martin, "Museums and Globalisation", in MACDONALD and FYFE, 'Theorizing Museums', p.32.

[81]BENNETT, 'The Birth of the Museum', p.93.

[82]Ibid., p. 38.

[83]The Royal Scottish Museum does not quite adhere to this notion of the national museum, however, as from the beginning it has had the brief to represent the industrial arts of the world, and this aim to portray aspects of world culture, rather than just that of Scotland, has not altered. Thus the Royal Museum of Scotland does not seek to encapsulate 'Scotland in a nutshell', with this job being left to the new Museum of Scotland.

[84]However, the identity of a nation is in reality an infinite number of sub-sets such as 'individual', 'family', and 'community'. Indeed, one of the most important things to comprehend about this structure of identity is that it is not monolithic. Rather, it is a phenomenon found at every scale of activity, these different levels often overlaying and affecting one another.

The wave of industrial museums that spread across Britain in the early 1800s can be seen as an obvious illustration of this promotion of national identity within the new framework of Modernity. Birmingham, Liverpool, Manchester, and Leeds, along with many other towns and cities, were granted 'industrial' museums at this time, although their brief was often widened subsequently. Indeed, as has been seen, even Edinburgh, a city more renowned for its contributions to academia and the fine arts than to the manufacturing industries, was conferred an 'industrial' museum in 1854 through the support and financial backing of government. An investigation into the reasons behind this new phenomenon discloses much. During this period, Britain was undergoing rapid and radical change from a small-scale agrarian economy to a major, and indeed the first, fully industrialised nation of the world. The manufacturing revolution was at its climax. Keen to advertise, promote, and encourage the scientific and technological advancements of the day, along of course with the accompanying economic prosperity, the government turned to the vehicle of the museum. This forum of the museum was the ideal stage for the display of achievements already attained and the encouragement of future innovation. Such displays identified the new Britain, both to itself and to the rest of the world, as a rational and forward-thinking nation at the forefront of the worldwide Industrial Revolution and placed the new society and economy firmly within the episteme of Modernity.[85] These new industrial museums were the embodiment of Enlightenment thought and its practical results.

Importantly however, a concurrent Romantic interpretation and representation of nation within the forum of the museum can be discerned, and at this point it is worthwhile returning briefly to the ideas of Adorno and Horkheimer, who wrote, 'the program of the Enlightenment was the disenchantment of the world; the dissolution of myths and the substitution of knowledge for fancy.'[86] As we have seen though, it was in concentrating on the abolition of such pre-modern unrealities as 'myth' and 'fancy' that the project of Modernity did in fact serve to strengthen them. Fable became an essential antidote to the unswerving objectivity of the modern era. In the light of this duality, it can be seen that just as an Enlightenment view of national identity was projected in the industrial museums of the time, so an opposing or counter-balancing Romantic Nationalism flourished. This Romantic counter-current

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[85]These aspirations, of course, bear comparison to the Millennium Dome, London.
[86]ADORNO and HORKHEIMER, 'Dialectic of Enlightenment', p. 3.

is clearly evidenced by the spate of museums celebrating national folklorism which opened at the beginning of the nineteenth century and, in particular, the Museum for Nordic Antiquities in Copenhagen which opened in 1807, the National Gallery in Budapest of 1802, and the National Museum in Prague from 1818. In the Scottish context, however, this romantic folk tradition or national ethnic identity is very weak.

In order to promote the nation-state, these museums drew their inspiration from the pre-modern past. Although, as has been seen, the nation-state was a product of the political and socio-economic conditions of the modern age, it would be wrong to deny the presence of any national sentiment or commonality before this period. To quote Smith: 'True, we may not find 'nations' in pre-modern epochs, at least not in the mass, legal, public and territorial form they took in recent centuries. On the other hand, we do find a number of looser collective cultural units, which we may call ethnies...', and he continues to define such ethnies as, 'named units of population with common ancestry myths and historical memories, elements of shared culture, some link with a historic territory and some measure of solidarity, at least among their elites.[87] To greater and lesser extents Scotland, Canada, and New Zealand all adhere to this paradigm of the pre-modern ethnie, and it is the appropriation, distortion, and manufacture of this national history to create a romantic image of nation, and subsequently its portrayal in the museum, which will be of interest.

This movement of Romantic Nationalism has several defining devices and characteristics which will be demonstrated 'in action' at the casestudy museums in the following chapters. Firstly, the Semperian idea of the filtration of architectural motifs and images through time is analogous to a feature of Romantic Nationalism.[88] To simplify his theory, Semper believed that over a period of many generations, elements or traces of past building styles, techniques, and decorations were retained, but transmutated or evolved through different building materials. To quote his text, 'The Four Elements of Architecture': 'The columns of Egyptian temples at times have the appearance of reed bundles, surrounded and bound together with a carpet.'[89] In a

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[87]SMITH, 'Nations and Nationalism in a Global Era', p. 57.
[88]Born in Hamburg in 1803, Gottfried Semper went on to become one of the most influential architects of his day. However, it is for his endeavors as a successful architectural teacher and theorist that he is most remembered. After a long and varied career, he died in Rome in 1879.
[89]SEMPER, Gottfried. 'The Four Elements of Architecture', (Cambridge: Cambridge University Press, 1989), p. 107.

corresponding way, a Romantic image of nation is often achieved through the re-use of potent or nostalgic images from the past. Unlike in the case of Semper's theory however, the material drawn upon is not always confined to the architectural, but indeed can be any image that engages the popular imagination.[90]

This notion of the evolution or mutation of images from the past in the search for national legitimacy and glamour leads us on to another, more extreme characteristic of Romantic Nationalism: the manufacture or invention of tradition. A perceived need for national authenticity and authority has often led to the creation of national identity via a series of myths, and nowhere is this fabrication more apparent than in the case of Scotland. The contrivance of tartanry is an obvious case in point, and the imaginative forgery of 'Ossian' certainly lends credence to Milton's view that, 'The beginning of Nations, those excepted of whom sacred Books have spok'n, is to this day unknown. Not only the beginning, but the deeds also of many succeeding Ages, yea periods of Ages, either wholly unknown, or obscur'd and blemish't with Fables.'[91] However, as identified by Smith, in order to succeed and become part of the cultural tradition, such myths and fables must have a degree of 'truth', in that they must have a degree of collective resonance:

> For a time we may be able to get by and 'invent traditions' and manufacture myths. But if myths and traditions are to be sustained, they must resonate among large numbers of people over several generations, and this means they must belong to the collective experience and memory of particular social groups. So new traditions, too, must be culture-specific: they must be able to appeal to and mobilize members of particular groups while excluding, by implication, outsiders, if they are to maintain themselves beyond the generation of their founders.[92]

This device of invention often draws substantially from the realm of the invisible, myths, and hearsay, and this lack of a boundary between the real and imaginary world associates this aspect of Romantic Nationalism with the pre-modern episteme.

The final aspect of National Romanticism to be discussed here is its relationship to the 'core and periphery' debate, and Smith's reading of this question in his book,

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[90] See sections 1.4 and 2.3.
[91] MILTON, 'History of Britain', p. 1, in FERGUSON, William. 'Identity of the Scottish Nation', (Edinburgh: Edinburgh University Press, 1990), p. 131.
[92] SMITH, 'Nations and Nationalism in a Global Era', p. 24.

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'Nations and Nationalism in a Global Era', makes a very useful starting point. He writes:

> A second important ethnic legacy from pre-modern epochs has been the survival of many so-called 'peripheral' *ethnies*. These are usually demotic or 'vertical' in character. Examples from the West would include the Quebecois, Basques, Catalans, Corsicans, Bretons, Welsh, Scots, Frisians, to name just a few; outside Europe, there are the Ewe, Bakongo, Copts, Kurds, Druse, Sikhs, Nagas, Tamils, Moro and Australian Aborigines. These ethnic communities have in the past stood (and in some cases still stand) in relations of alienation and subordination to larger, dominant *ethnies* whose elites ruled the state into which they had centuries ago been incorporated by expansionist lords and monarchs, or more recently by European colonial powers. The leaders of these peripheral *ethnies*, or the leaders of movements claiming to speak on their behalf, frequently contend that their communities continue to be exploited and oppressed in varying degrees. In the past, social, cultural and political issues formed the basis of protest. Today economic issues predominate, with the peripheral communities claiming their resources and labour are exploited and their regions are neglected or marginalized by governments dominated by the core or strategic *ethnie* in the state.[93]

Clearly in this reading many ethnies, societies, or nations can be categorised into one of two groups: the often imperialist, domineering core culture; and the frequently subjugated minority or peripheral culture. All three nations discussed in this thesis relate to this core and periphery divide, but each appertains to it in a distinct way, to be explained later. However, what is of relevance here is the connection between Romantic Nationalism and peripheral ethnies. Feeling at best marginalised, and at worst subjugated, peripheral ethnies have a much greater need to assert their own social, political, and cultural identity, than do coherent and secure core cultures. For this reason, peripheral ethnies tend to draw much more heavily on sources of Romantic Nationalism, often turning the historical reasons for their current subordination, for example military defeats, into a potent identity of glorious failure and the Romantic lost cause. Such peripheral cultures are also much more likely than their core neighbours to manufacture or invent national identities when the supply of valid source material diminishes or is exhausted. This fabrication, paradoxically, leaves such peripheral societies wide open to accusations of having an inferior or debased culture. Thus ironically, instead of strengthening the status and claim of peripheral ethnies, the mythical projection of the past from the standpoint of the present produces an inferiorised and adulterated cultural identity. Scottish culture has been particularly blighted by this effect of peripheralisation, and as David

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[93]SMITH, 'Nations and Nationalism in a Global Era', pp. 60, 61.

McCrone explains, this legacy is not easily forgotten or replaced: 'The last twenty years have seen a cultural renaissance in Scotland, in those aspects which confirm its separate identity. Yet the dominant analysis of Scottish culture remains a pessimistic and negative one, based on the thesis that Scotland's culture is 'deformed' and debased by sub-cultural formations such as tartanry and Kailyardism.'[94]

Introduction to the present-day situation and the individual case-study museums.

The museum has traditionally been used as a powerful tool for the communication of ideas, but its usefulness in this respect has increased again over the last few decades. Since the end of the Second World War and the 'white heat of the technological revolution' in the 1960s, [95] there has been a significant decrease in average working hours. The concomitant effect of this has been a marked increase in leisure time, and the museum and heritage sectors have both capitalised fully on this new market opportunity. Indeed, as a result of the increase in visitor popularity, museums have been proliferating at a previously unseen rate, with the whole cultural tourism sector experiencing a boom. To give an example of this, 'half of Scotland's four hundred museums have been opened since the late 1970s, and these attract around twelve million visitors annually.'[96] A staggering fact to note also, is that by the late 1980s, museums in Britain were being opened at a rate of one every fortnight. Although superficially a straightforward development, Sharon Macdonald appreciates the deeper anomaly inherent in this recent growth of museums when she writes, 'museums occupy an intriguingly paradoxical place in global culture as we approach the new millennium. Bound up with much that is heralded to be nearing its end - stability and permanence, authenticity, grand narratives, the nation-state, and even history itself - their numbers are growing at an unprecedented rate.'[97] Whatever the contradictions may be, however, the result is that more people than ever before are now choosing to visit museums, and as such are now being exposed to the constructed narratives and identities presented within them. As in the past, the power of these museum narratives to inform and alter perception is considerable:

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[94]McCRONE, David. 'Understanding Scotland: The Sociology of a Stateless Nation', (London & New York; Routledge, 1992), pp. 12, 13.

[95]This term was coined by the Labour Prime Minister, Harold Wilson.

[96]McCRONE, 'Understanding Scotland: The Sociology of a Stateless Nation', p. 2.

[97]MACDONALD and FYFE, 'Theorizing Museums', p. 1.

'...developments within museums can challenge accepted theoretical wisdoms, forcing us to rethink assumptions about, say modernity, nationhood, social memory, consumption, structure and agency, and the nature of material forms, to mention just some of those addressed here.[98] Throughout its history, the museum has been an excellent political, social, and cultural generator and indicator, and these aspects of the museum have certainly not been reduced in recent years. As Macdonald and Gordon Fyfe explain:

> The contradictory, ambivalent position which museums are in makes them key cultural loci of our times. Through their displays and their day-to-day operations they inevitably raise questions about knowledge and power, about identity and difference, and about permanence and transience. Precisely because they have become global symbols through which status and community are expressed, they are subject to appropriation and the struggle for ownership.[99]

All three museum casestudies are positioned at exactly such fertile crossroads or cultural loci, both generating and demonstrating aspects of the wider civil and political societies of which they are a part. Crucially, all three buildings also find themselves, 'subject to appropriation and the struggle for ownership'.

Just as the museum has retained its appositeness and relevance, so the concept or construct of 'nation' has lost none of its power and legitimacy in the contemporary world. Despite seemingly destructive pressures from, on the one hand, the relentless information technology-driven process of globalisation as well as overarching international political and commercial organisations, and on the other, the process of fragmentation driven by an increasing desire for ethnic independence, the nation remains the indisputable paradigm of social and cultural organisation in our time. McCrone explains the macro-level of this apparent anomaly in the following terms:

> ...most modern state formations are under scrutiny. Globalisation of the economy, supra-national political agreements (such as the European Union), and the impact of the media on 'national' cultures have all eroded the power of national states to control their own economic, political and cultural affairs. In the context of this broad debate, we can place the revival of regionalism and nationalism.[100]

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[98]Ibid., p. 3.
[99]Ibid., p. 2.
[100]McCRONE, David. 'Scotland the Brand: The Making of Scottish Heritage', (Edinburgh University Press, Edinburgh, 1995), p. 25.

Or, as Tom Nairn asserted more concisely and prophetically in his 1977 book, 'The Break-Up of Britain': '...the overwhelming dominant political by-product of modern internationality is nationalism'.[101] At the very time when nationalism appeared to be becoming redundant in the 'global village', it has reasserted itself as a powerful force. Thus, instead of seeing these two phenomena as deeply contradictory, Nairn encourages us to view them rather as cause and effect.

Consideration of the reverse trend of the ethnically-driven disintegration of nations, in evidence currently across the globe, reveals a similar strengthening of the construct of 'nation' as its indubitable, if ironic result. When culturally and often linguistically distinct ethnies do achieve separation from the former nations of which they were a part, it is usual for these new estranged ethnies to restructure themselves around the same basic paradigm of nation. Examples of such separatist ethnies reforming as nations include the new nations of the former U.S.S.R. and those produced by the break-up of the former Yugoslavia. Conversely, in those cases where such a move to separation is unsuccessful, the original nation has overcome the ethnic challenge and maintained its national integrity. The retention of Quebec within the Canadian nation is an apposite case-in-point here. To transpose from the words of Nairn, in these instances the overwhelming political by-product of ethnic fragmentation is nationalism.

Thus to conclude, within this doubly altered landscape one might expect the slow dissolution of national autonomy, identity, and culture. However, in spite of, or indeed because of, these apparently opposing and destabilising developments of globalisation and ethnic fragmentation, the nation still maintains its ultimate societal authority.

In each of the chosen casestudy museums: the Museum of Scotland in Edinburgh; the Canadian Museum of Civilization in Ottawa; and Wellington's Museum of New Zealand Te Papa Tongarewa, the museum is an embodiment of the nation's own self-critique and as such is a fascinating and convincing research vehicle. As Louis Sullivan lyricised in 1907:

> Every building tells a story, tells it plainly.

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[101]NAIRN, Tom, 'The Break-up of Britain', 1981, in BEVERIDGE, Craig, and TURNBULL, Ronald, 'The Eclipse of Scottish Culture. Inferiorism and the Intellectuals', (Edinburgh: Polygon, 1989), p. 52.

With what startling clearness it speaks to the attentive ear,
how palpable its visage to the open eye, it may take you some time to
perceive.
But it is all there, waiting for you.[102]

The three museums, the earliest of which was completed in 1989, relate to both Modernity and National Romanticism in distinctive ways, and demonstrate, albeit to different extents, the paradigmatic shift which Macdonald suggests has occurred in recent years in the role and critique of the museum. She writes, 'if museums, anthropology and sociology have collaborated in the formation of modernity and the nation-state, they have also come to question many of modernity's 'totalizing paradigms' and to share many of the same insecurities about how to represent in the contemporary world (Harvey, 1996).'[103] Before addressing these pivotal issues however, it is necessary to introduce the history and development of each of the three museum institutions.

Museum of Scotland

The Museum of Scotland is the product of the fusion of two formerly distinct museum organisations: the National Museum of Antiquities of Scotland, the NMAS; and the Royal Scottish Museum, the RSM.[104] At midnight on 30 September, 1985, the NMAS and the RMS amalgamated to become the National Museums of Scotland, or the NMS, with this new umbrella organisation inheriting incomparable collections of Scottish material.[105] The development of the RMS, which has already been traced, culminated in the construction of the Venetian Renaissance palazzo museum building on Chambers Street.

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[102]SULLIVAN, Louis. 'Kindergarten Chats', 1907.
[103]MACDONALD and FYFE, 'Theorizing Museums', p. 7, based on the idea of HARVEY, P., 'Hybrids of Modernity: Anthropology, the Nation-State and the Universal Exhibition', (London: Routledge, 1996).
[104]This amalgamation was described more vividly by Charles McKean as a 'shotgun marriage between two totally dissimilar and mutually suspicious museums'. [McKEAN, Charles. 'The Making of the Museum of Scotland. Draft Text', unpublished, p. I2].
[105]The Project Office. 'Reference Manual. The Museum of Scotland Project', (Edinburgh: National Museums of Scotland, 1996), Factsheet number 1.1.

Fig. 10. Chambers Street façade of Fowke's Venetian Renaissance palazzo.
Fig. 11. Main Hall of the RMS, the 'industrial' glass and iron of which is in striking contrast to the traditional façade.

From the NMAS branch, the origins of the Museum of Scotland project can be traced as far back as 1780 when the Society of Antiquaries of Scotland was founded by David Stuart Erskine, the 11th Earl of Buchan.

Fig. 12. David Stewart Erskine, 11th Earl of Buchan; portrait in oils by James Wales after Sir Joshua Reynolds, about 1780.

Erskine, a passionate if eccentric collector, in many ways epitomised the contemporary view of the antiquary, and, 'when ... [he] was buried in 1829 ... laid with his head to the east instead of the west ... Sir Walter Scott observed wryly: 'a man who had been wrong in the head all his life would scarce become right headed after death''.[106] A year after the inauguration of the Society, its first museum was founded near the Cowgate in Edinburgh, and in 1783 the Society was granted a

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[106]McKEAN, 'The Making of the Museum of Scotland', p. 1.6.

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Royal Charter by George III. An uneventful period then ensued, until in 1826 the Society and its museum moved to the Royal Institution at the foot of the Mound, sharing William Playfair's neo-Doric temple with the Royal Society of Edinburgh. [107]

Fig. 13. Late nineteenth-century view of Hanover Street, Royal Institution (W.H. Playfair, 1822-35). [Centre foreground].
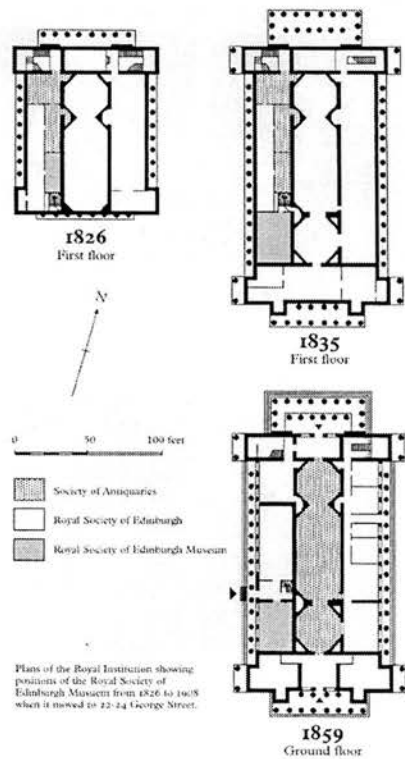
Fig. 14. Plans showing the location of the Society of Antiquaries collection within the Royal Institution.

In 1858, responsibility for the Society of Antiquaries' museum collections was transferred to the Government, and the National Museum of Antiquities of Scotland, or NMAS, was born.

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[107]Construction work began in 1823 and the building was occupied in 1826.

Fig. 15. Joseph Anderson and George Black in the National Museum of Antiquities at the Royal Institution, 1890, showing some of the most valued objects in the collections.

The final major development of the century occurred in 1891, when the NMAS moved into a new home in Queen Street. The building, an essay in Ruskinian Neo-Gothic, was designed by Rowand Anderson and donated by J.R. Finlay, the then proprietor of *The Scotsman'* newspaper. This accommodation was shared by the NMAS with the Scottish National Portrait Gallery.

Fig. 16. Scottish National Portrait Gallery (Anderson, 1884-9).

The early decades of this century were a quiet time, but by the 1930s and 1940s unrest was growing over the collection's inadequate accommodation, which had been acknowledged in a Royal Commission report of 1928. The result of this was

the Philip Report of 1952, a Government inquiry that found the displays, 'lamentably cramped',[108] and recommended that a central site be found for a new building. The site at the south-west corner of Chambers Street, next to the then Royal Scottish Museum, was identified as a possible option, and by 1956 the Government had approved this site in principle and planning for the new building had begun.[109] It was from this point onwards, however, that the project slid into a state of stagnation, with endless disagreements leading to numerous delays and abandonments. The NMAS and the RMS both laid claim to the newly selected site and both remained doggedly unprepared to share the space. This position is clearly demonstrated in a statement written by the Director of the RSM, Dr. Allan, in 1961: 'It is not a good thing that any part [of that site] should be shared by the NMAS. I would strongly deprecate sharing the site with any other Institution...'.[110] Such a seemingly obstructive stance was justified, however, as the whole scheme was fundamentally flawed: 'the joint project was manifest madness'.[111] Combined design requirements of, for example, a Medieval Hall for the NMAS and a planetarium for the RMS, proved to be irreconcilable, although as McKean has written, 'the Property Services Agency architects did not see it that way. They proposed that it was, in reality, to be two separate buildings within one shell, and were sure that a suitable compromise could be reached'.[112] After much protestation and wrangling, the site was eventually cleared between 1971 and 1972, but again the building project was delayed, and by 1976 it was officially shelved because of public expenditure cuts.

The 1980s brought a new impetus and determination to the MOS project and proved to be the turning point. In 1981, the Williams Committee in a publication entitled, 'A Heritage for Scotland', recommended that the Government should introduce legislation to establish a new museum, the Museum of Scotland, based on the collection of the NMAS. A year later the Secretary of State for Scotland acquiesced to this, although he rejected the Committee's proposal to site the new museum at John Watson's School. By 1983, the path to organisational unification was open, with the Secretary of State announcing that both the NMAS and the RMS should be managed by one Board of Trustees and one Director, and a Museum's Advisory Board with the sixth Marquess of Bute as its chairman was recruited to consider the

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[108]'The Philip Report', Command 8604, 1951, in McKEAN, 'The Making of the Museum of Scotland', p. 1.6.
[109] Project Office. 'Reference Manual', 1.1.
[110]McKEAN, 'The Making of the Museum of Scotland', p. 1.8.
[111]Ibid., p. 1.9.
[112]Ibid., p. 1.8.

best means of implementation. [113] On 4 April, 1985, the National Heritage (Scotland) Bill, which called for the establishment of the single Board of Trustees, was passed by Parliament, and a couple of months later on 19 June, the Museums Advisory Board published its recommendations. It concluded that the two institutions, 'should be integrated and their principal facilities brought together at Chambers Street, and that planning should begin on the cleared site to house a Museum of Scotland, drawing mainly on the NMAS collections and also on Scottish material in the RSM collections'.[114] For the first time, a practicable brief was emerging.

After the crucial amalgamation in September, 1985, the Board of Trustees of the NMS identified the construction of a new building on the vacant Chambers Street site as their foremost objective, and by 1987 a working party of trustees and staff was drawing up an exhibition and accommodation scheme. In the same year, the trustees also mounted a campaign to raise support for the new museum, and one aspect of this was the publication of a brochure entitled, 'St. Andrew, Will He Ever See the Light?', designed to cajole the Government into funding the project. A typical excerpt for this publication reads:

> We owe it to ourselves, our ancestors and our children to provide a lasting display of the cultural heritage of this small but influential nation. Scotland stands alone amongst countries of its size in having nowhere to tell the full story of its peoples and to show properly its many treasured possessions. This is a disgrace long recognised by many.[115]

Its ending is a direct criticism of Government apathy and parsimony: 'Don't test the patience of a Saint... No ifs, no buts or maybes. No procrastination... No more neglect or we will become the victim of our own inertia... That, in a nation which has provided some of the world's foremost innovators and explorers, would be unpardonable'.[116] The rhetoric employed was certainly not subtle, but proved to be highly effective as at the opening of the exhibition, 'The Wealth of a Nation', in June, 1989, the Secretary of State for Scotland announced that the Government was to provide financial support for a new building. Magnus Magnusson's exhortation in the exhibition catalogue had been answered: 'Nothing would be a more fitting tribute

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[113]On its establishment two years later, Lord Bute was appointed first chairman of the Trustees of the National Museums of Scotland.
[114]Project Office, 'Reference Manual', p. 1.1.
[115]McKEAN, 'The Making of the Museum of Scotland', p. 2.6.
[116]'St. Andrew, Will He Ever See the Light?', (Edinburgh: National Museums of Scotland, 1987).

to our past than to give it the future it deserves, in the kind of setting it deserves. Only a new and visionary Museum of Scotland will do full justice to the Scottish collections that make up the true Wealth of a Nation.'[117] At this juncture, a feasibility study for the new building carried out by the architect, John Richards, produced an outline scheme and model, and after an investment appraisal, Chambers Street was officially declared the most economically viable of the six sites considered. An idea that some galleries of the RMS could be floored in to create extra exhibition space was briefly mooted, but the seriously appraised alternative sites were: Waterloo Place; the Dean Gallery, formerly the Dean Orphanage; Donaldson's Hospital; the Scottish and Newcastle Breweries Distribution Depot, the future site of the Scottish Parliament building by Enric Miralles; and finally, Heriot Watt University's Mountbatten Building in the Grassmarket. 1990 was in many ways a fact-finding year, with a small group of senior staff and trustees visiting new museums in France, Germany, and North America in search of best practice and architectural inspiration, and later in the year a symposium entitled, 'A New Museum for Scotland', provided a forum to convey ideas and engender debate. Leading on from this, the following May a private seminar was held in order to solicit views from academics, wider museum professionals, and exhibition designers on the proposed draft exhibition brief.

From 1991 onwards, architecture became the most contentious and conspicuous aspect of the new museum project. In January, an open, two-stage, international architectural competition administered by the NMS and the Royal Incorporation of Architects in Scotland was launched. The first round, which closed on 16 April, attracted 317 entries from Scotland and twenty other countries around the world, giving it the largest ever overseas entry for a U.K. competition.[118] McKean comments,

> 'The Scotsman' reported a "last minute flood of entries, and the queue of entrants outside the RIAS headquarters, the classical town house of 1831 in Rutland Square, building up early in the morning" ... One competitor later wrote to 'Building Design' enquiring how many competitors had missed the deadline "because they were unable to open the box containing the fancy brief".[119]

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[117]MAGNUSSON, Magnus. 'The Wealth of a Nation in the National Museums of Scotland', (Edinburgh: National Museums of Scotland, 1989), p. ix.
[118] Over 700 requests were made for the brief.
[119]McKEAN, 'The Making of the Museum of Scotland', p. 3.11.

After this first time-consuming selection stage and the interviewing of the twelve preferred architects, the field was narrowed to just six firms: Benson + Forsyth; James Stirling, Michael Wilford & Partners with Ulrike Wilke; Michael Squire Associates; William G. McMorran and Simon R. Gatehouse; Burrell Foley Fischer; and Peter Haddon and Partners. These shortlisted firms were then invited to submit more detailed design concepts, the judging of which took place on 29 and 30 July, and in August, the London-based partnership of 'Benson + Forsyth' was announced as the winner, with second prize going to Ulrike Wilke and James Stirling, Michael Wilford & Associates.

However, like so many other high profile architectural competitions, this one for the MOS did not escape controversy. As Gillian Bowditch later explained in 'The Times', 'The Prince of Wales, who was to be president of the patrons, resigned dramatically over its design. He was concerned about a lack of public consultation in the selection process.'[120] As the Prince's architectural confidant, Colin Amery described the situation thus: '[the Prince] made it clear on several occasions that he did not just want to be a name on the fund-raising writing paper, and that he hoped the Museum would not select an architect through the closed-shop machinations of the professional Mafia'.[121] The official statements released from the Palace were considerably more moderate in tone, but cited similar reasons for disquiet: 'By the nature of the competitive process adopted, it has not been possible for His Royal Highness to take as active a role as he would have wished in commenting upon the design concept', and it was stated later that, 'he did not feel that the process was consistent with his hope that as much weight be given to interested lay opinion as to so-called experts'.[122] This situation was instantly reminiscent of that involving the Prince of Wales at the National Gallery, London, in 1984, in which he dramatically attacked the short-listed designs. Although in this case at the MOS he was more circumspect citing the lack of public dialogue as his reason for displeasure, the timing of the announcement, which coincided with his first view of the winning design,[123] left everyone concerned in no doubt that he was deeply unhappy with

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[120]BOWDITCH, Gillian, "Home for the tartan heritage; Museum of Scotland". *The Times*, September 4, 1995, p.13.
[121]Colin Amery quoted in, McKEAN, 'The Making of the Museum of Scotland', p. 4.7.
[122]Official Palace press release quoted in, McKEAN, 'The Making of the Museum of Scotland', p. 4.9.
[123]This was another bone of contention for the Prince, as related again by Colin Amery: '...despite being President of the Patrons, HRH The Prince of Wales was only shown some black and white photographs of the final six just before the announcement of the winner'. [McKEAN, 'The Making of the Museum of Scotland', p. 4.8.] The Prince's credibility as an architectural critic declined dramatically after this attack.

Benson + Forsyth's conspicuously modernist design solution, and with the fact that he had been excluded from the selection procedure. Indeed, as much was inadvertently revealed by Lord Bute at the press conference following the announcement of the winning design team, when he said, 'I think in the long term, the Prince may actually like the building'.[124] However, 'the project survived this royal fit of pique and the architects, Gordon Benson and Alan Forsyth, were awarded the contract'.[125]

In April of 1993, the Secretary of State for Scotland cut the first turf and work began on site. On 7 July the following year, the Queen inaugurated the project by unveiling a carved stone marking the opening between the old and new museum buildings. Both home and international fundraising activities were carrying on apace at this time, and in 1995, the trustees of the National Heritage Memorial Fund agreed to provide up to 7.25 million pounds from the Heritage Lottery Fund. In the same year, Bovis were appointed as management contractors for the main building works and preparatory work began on site in December. A period of intensive, and at times problematic consultation between museum curators and the architectural team was drawing to a conclusion, and by 1996, the main construction of the shell of the building had started, and the installation plan and detailed layouts for the exhibitions were completed. Finally, on St. Andrew's Day, 30 November, 1998, the Queen officially opened the Museum, and the following day it opened its doors to the public for the first time.
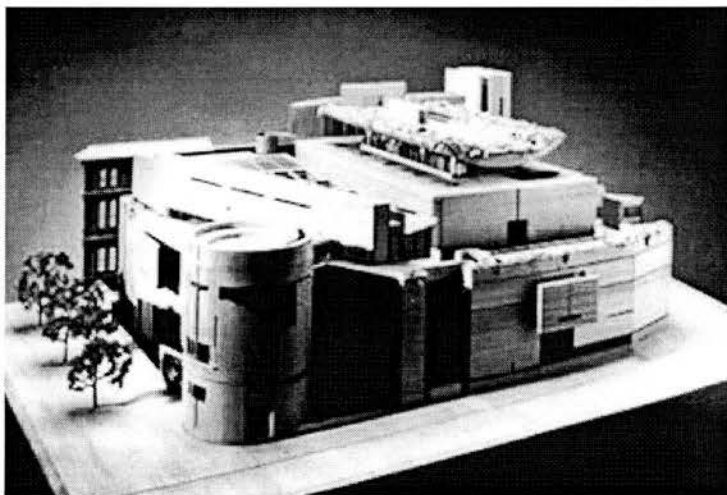
Fig. 17. Aerial view of the model of the Museum of Scotland.

[124]McKEAN, 'The Making of the Museum of Scotland', p. 4.10.
[125]Ibid., p. 13.
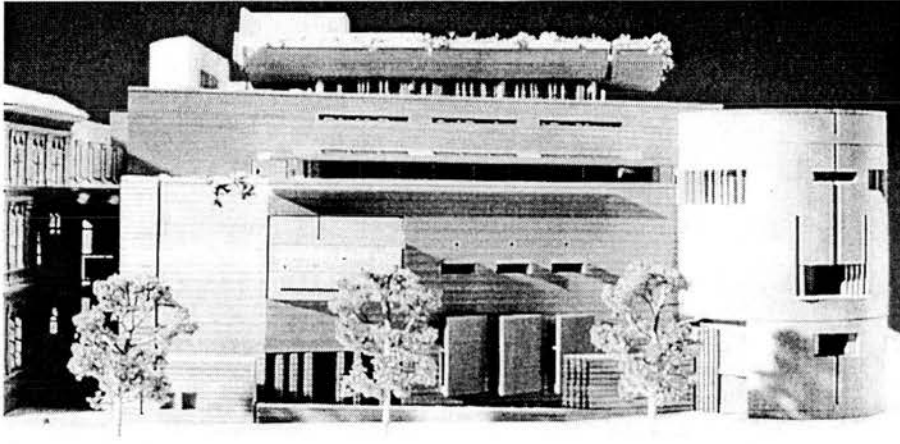
Fig. 18. North, Chambers Street façade of the model of the Museum of Scotland.

Canadian Museum of Civilization

In stark contrast to the Royal Museum of Scotland, the National Museum of Canada was not formally established until 1927. However, despite this late date of official inauguration, its origins can be traced much further back to the Geological and Natural History Survey of Canada which began in 1842. In the July of 1841, the Natural History Society of Montreal and the Literary and Historical Society of Quebec petitioned the Government to carry out a geological survey, and later in the same year, Queen Victoria granted one thousand five hundred pounds sterling for this project. [126] In 1842, the 'remarkable and indefatigable' geologist, William Edmund Logan, was appointed the first director of the Survey, which was to be based in Montreal. [127] A year later in 1843, the results of his first fieldwork along with those of his assistant Alexander Murray, 'formed the humble beginnings of the National Museum'.[128]

This surveying and collection by the Geological Survey continued and in 1851 an assemblage of minerals collected in Canada was sent to the Great Exhibition in London; a reminder of the close and friendly, if still imperialist/colonist relationship between the two countries at this time. Indeed, geology, which played a part in the formation of all three of the casestudy museums, was an integral aspect of the

[126] 'The National Museum of Canada. Historical Sketch', (Ottawa: CMC in-house publication, undated), p. 2.
[127] Folder on the 'National Museum of Man: A History', (Ottawa: CMC in-house publication, undated).
[128] 'The National Museum of Canada. Historical Sketch', p. 3.

colonial era as a whole, with imperial powers utilising it to map their new territories and possess the very substance of their new lands.[129] It is important to note, however, that although at this point geology and mineralogy were the principal concerns of this survey in Canada, other areas of research were being developed: 'Although he was a geologist, Logan had wider interests and he and his assistants on their field trips collected not only rocks and minerals, but also fossils, plants, animals and Indian artifacts.'[130]

In 1856, it was decided to establish a public geological museum, and this was housed in several warehouses and other non-specific buildings in Montreal.[131] However, in an Act of Parliament of 28 April, 1877, it was decided, 'to make better provision respecting the Geological and Natural History Survey of Canada and for maintenance of the Museum in connection therewith',[132] and so three years later, in accordance with this proposition, the Geological Survey and Museum were moved to the old Clarendon Hotel on the Byward Market, in the shadow of Parliament Hill in Ottawa.[133] This site was prestigious, standing as it did at the north east corner of the intersection of Sussex and George Streets.[134] In 1882, a division of biology was set up under the leadership of John Macoun, and in 1895, the Museum also entered the field of anthropology. The situation then remained relatively static until 1907, when control of the Geological Survey and its Museum was moved to the newly formed Department of Mines.[135]

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[129] See sections 1.2 and 1.3. Interestingly however, after this imperial era the profile of geology declined, before interest was re-ignited in it recently as demonstrated by the new geological wing of the Royal Ontario Museum in Toronto, and 'Dynamic Earth' in Edinburgh.

[130]Folder on the 'National Museum of Man: A History'.

[131]'The National Museum of Canada. Historical Sketch', p. 3.

[132]Canadian Act of Parliament: 28 April, 1877.

[133]'National Museum of Man Chronology', (Ottawa: Resource Centre publication, undated), p. 1.

[134]RUSSELL, Loris S. 'The National Museum of Canada 1910 to 1960', (Ottawa: Department of Northern Affairs and National Resources, 1961), p. 2. The Canadian Prime Minister's official address is Sussex Street.

[135]'The National Museum of Canada. Historical Sketch', p.2.
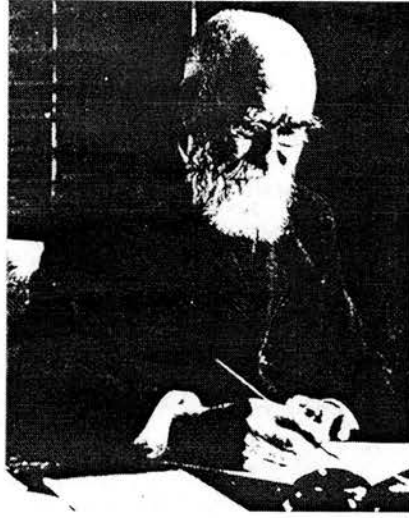
Fig. 19. John Macoun (1832-1920).

Owing to a chronic restriction of space in the Clarendon Hotel building, the construction of the Victoria Memorial Museum began in 1904, and the Geological Survey moved into this building in 1910, one year before it was officially opened to the public.[136] At this point, the National Gallery occupied the east wing of this Memorial Museum building, which, as shown in these contemporary photographs, was a large stone edifice, 400 feet long and 150 feet wide, in a castellated, neo-Tudor style.
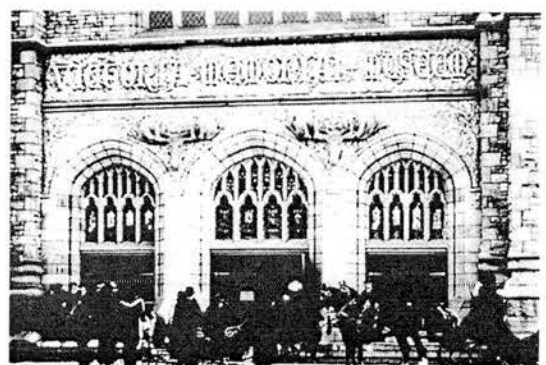
Fig. 20. Contemporary photograph of the Victoria Memorial Museum.
Fig. 21. The Victoria Memorial Museum hosting a funeral ceremony for Sir Wilfred Laurier in 1919.

However, with the accommodation problem newly solved, an unexpected disaster had serious repercussions on the Museum. On the night of 3 February, 1916, with the Parliament in session, the centre block of the Parliament buildings in Ottawa was

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[136]It had originally been intended to call this building the 'Victoria and Albert Museum', but as Queen Victoria had been dead for ten years when the Museum finally opened in 1911, it was decided to call it the Victoria Memorial Museum instead.

destroyed by fire. Soon afterwards, the Victoria Memorial Museum, and in particular its lecture hall, was designated as a suitable temporary home for the nation's politicians, and the move was made. Canada's involvement in the First World War was therefore directed by Prime Minister Robert Borden and his Conservative cabinet from the Victoria Memorial Museum, and it was only in 1920, with the Parliament finally rebuilt, that the politicians moved out. To compound the difficulties, during their unexpected stay the building had subsided into its unstable clay base to such an extent that it was deemed necessary to remove the heavy central tower completely, just to halt this sinkage. As illustrated below, 'the tower was removed in 1916, giving the building a slightly decapitated appearance.'[137]
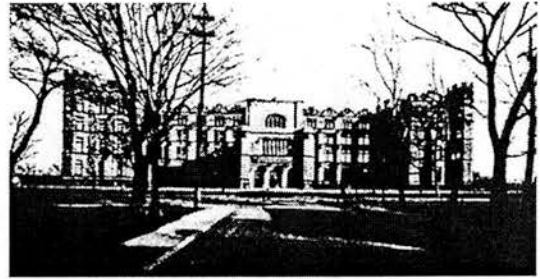
Fig. 22. The Victoria Memorial Museum building in 1913, prior to the removal of the centre tower.
Fig. 23. The Victoria Memorial Museum building after the removal of the tower in 1916.

Then in 1927, 'the Governor General in Council gave authority "to designate the museum branch of the Department of Mines as the National Museum of Canada"',[138] and the National Museum was officially begun. 1942 saw the formal inauguration of the Canadian War Museum in Sussex Drive, and throughout the entire period of war, exhibition space in the Victoria Memorial building was largely taken over by war-time agencies. This first period of the Museum's history drew to a close when in 1950, the Geological Survey and National Museum were finally separated: the former remained in the Department of Mines and Technical Surveys, whilst the latter was moved to the newly formed Department of Resources and Development.

What then became of the National Museum of Canada after its long-standing link with the Geological Survey came to an end? In 1958 the Canadian War Museum became a division of the National Museum of Canada, in 1959 the Geological Survey finally moved into its new office building on Booth Street, and in 1960 the National Gallery was also able to move out of the Victoria Memorial building to its

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[137]RUSSELL, 'The National Museum of Canada', p. 11.
[138]'The National Museum of Canada. Historical Sketch', p. 2.

new premises, the Lorne Building on Elgin Street. This meant that at last, 49 years after its opening, the Victoria Memorial Museum became the exclusive domain of the National Museum of Canada.[139] Then, in 1964 in a major administrative shift, the National Museum of Canada was transferred to the Department of the Secretary of State. In 1966, a Science and Technology branch was created. The next significant change came in 1968, with the establishment of the National Museums Corporation, or NMC, a body to oversee the National Gallery, the National Museum of Man,[140] the National Museum of Natural Sciences, and the National Museum of Science and Technology. Equally important, in 1972, was the announcement of the National Museums Policy, a document that was used extensively in creating the brief for the new Canadian Museum of Civilization. More practically and urgently, three years before this report was published the Victoria Memorial Museum building had to be closed on grounds of safety for extensive and essential structural alterations, and it reopened in part in 1974 to house both the Museum of Man and the Museum of Natural Sciences. This enforced closure also allowed time for the exhibitions themselves to be entirely remodeled, following new museological methods which had been successful in Montreal's 'Expo '67'. By 1976, the National Museum of Man was composed of five curatorial divisions and two public programming divisions. Another important administrative shift took place in 1980, when control of the National Museums of Canada was transferred to the Department of Communications.

This history of constant administrative upheaval along with chronic accommodation problems within the Museum of Man, continued from the 1970s into the 1980s, the latter problem if anything getting worse. In fact, both decades were characterised by bureaucratic and physical decentralisation. Bureaucratically, it was the period in which the overseeing body, the National Museums Corporation, was dissolved, 'leaving the component museums free to pursue their individualistic directions'.[141] It was at this stage that the National Museum of Man changed its name to the 'Canadian Museum of Civilization', in order to symbolise its new status. This also quelled unrest over what was increasingly being seen as an inappropriately male-centric title.

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[139]Folder on the 'National Museum of Man: A History'.

[140]It is important to note that at this point in 1968, the name of the institution was changed from the 'National Museum of Canada', to the 'National Museum of Man'.

[141]MACDONALD, George F., and ALSFORD, Stephen. 'A Museum for the Global Village', (Hull: Canadian Museum of Civilization, 1989), p. 6.

Fig. 24. Front cover of the Museum's Library and Archive Work Index, no. 68.

Physical decentralisation occurred with the National Museum of Man and the National Museum of Natural Sciences at last being housed separately, and the overflow collections and staff from the Victoria Memorial Museum building being relocated to seventeen different buildings scattered throughout Ottawa and beyond. However, the problems associated with this spatial solution were manifold. Firstly, none of the buildings had been purpose-built, creating huge problems, 'in terms of space, environment, fire safety and security, for housing the often fragile and irreplaceable artifacts'.[142] A slow but steady deterioration in the condition of many of the objects was the unfortunate but inevitable result. Secondly, the fragmentation and dispersal led to isolation, and a loss of the sense of the overall endeavour of the Museum. Thirdly, and not insignificantly, this solution provided no more gallery space, only increasing the available floor area for storage space. As such, the museum visitor derived no benefits from the new arrangement.

With the situation rapidly becoming untenable, the first proposal to combat these acute difficulties came in 1977, when, 'museum management presented to the federal government a proposal to consolidate museum operations and services at a site on

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[142]Ibid., p. 6.

Brewery Creek, on the Quebec side of the Ottawa River, in Hull.'[143] Although rejected, this bid can in hindsight be seen as an important step towards the formation of the new Canadian Museum of Civilization. Over the next four years, lack of suitable display and storage space remained critical, leading to the Cabinet's decision in June of 1981 to approve in principle the relocation of both the National Museum of Man and the National Gallery of Canada to new, purpose-built accommodation. This approval was then officially announced in February of 1982, along with an assigned budget for both projects combined of 185 million dollars.

After many years of discussion and agitation, the plans for the construction of the new Canadian Museum of Civilization were finally unveiled in 1982. In the 1968 National Museums Act a general mandate for the four component institutions of the National Museums of Canada had been drawn up,[144] and the unique responsibility of the National Museum of Man within this was defined as follows: 'to discover, preserve and disseminate knowledge of human achievement with special but not exclusive reference to Canada so as to generate interest in the Canadian legacy, to foster national understanding and identity, and to enrich the lives of Canadians and others.'[145] Most obviously, this directive was referring to the nature of the Museum's collection and the ethos of its institution as a whole, but crucially, it becomes clear that the Museum's architecture was also expected to foster such a 'national understanding and identity'. This was articulated in the condensed version of the 'Architectural Programme', in which a key goal of the building's design was stated as being, 'the creation of a symbol of national pride and identity'. With this goal in mind, on site construction commenced in 1983, and in 1989 the building was officially opened.

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[143]Ibid., p. 7.

[144]This can be seen at the top of page two in the 'Architectural Programme Synopsis', (Ottawa: National Museums of Canada, 1983), and calls for, 'the achievement of a level of excellence which will be a source of pride to Canadians and which will establish the Museum as an institution of international standing.'

[145]Architecture and Planning Group, National Museums of Canada. 'Architectural Programme Synopsis', (Ottawa: National Museums of Canada, 1983), p. 2.
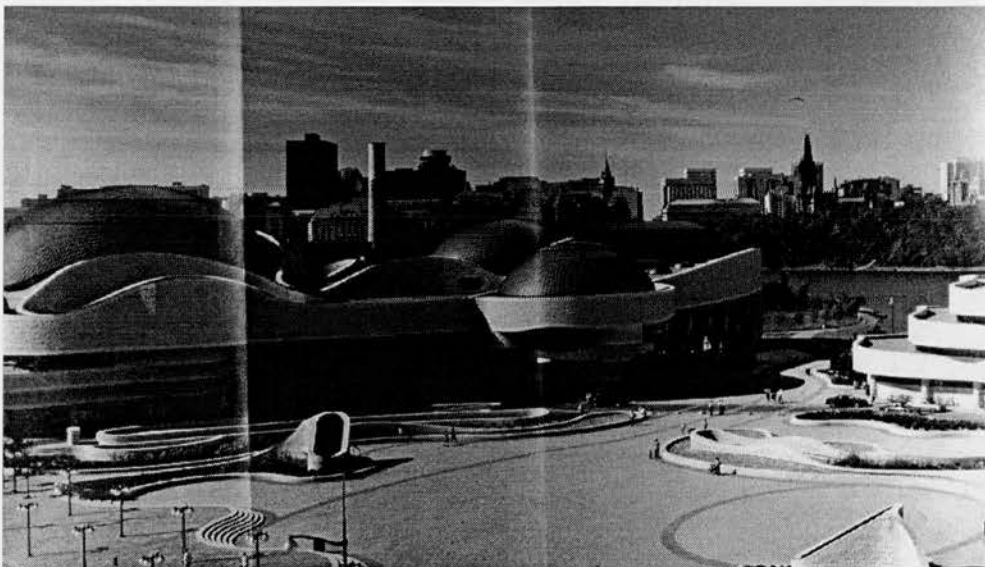
Fig. 25. View of the central plaza and display wing of the CMC.

National Museum of New Zealand Te Papa Tongarewa

Finally turning to New Zealand, the Colonial Museum, which can be regarded as the first national museum, was established in 1865.

Fig. 26. The Colonial Museum, 1865.

Its collections were drawn from an earlier museum of 1851, formed and curated on behalf of the New Zealand Society by Walter Buller.[146] On the dissolution of this

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[146]BAKER, Alan N. 'The Museum of New Zealand Te Papa Tongarewa - Where Have We Come From? A brief account of our 127-year history, 1865-1992, for staff of the combined institution', (Wellington: In-house publication, 1992), p. 1.

Society, however, its collections were free to be passed to the Colonial Museum. This new Museum was housed in a purpose-built wooden building designed by architects Mason and Clayton, located on Museum Street in Wellington.[147] The year of its construction is significant, as it was the year in which the capital was moved from Auckland to Wellington. The government, keen to cement this controversial move, established as many symbols of state in Wellington as quickly as it could, the museum being one part of this wider strategy.[148] Its inauguration was successful, however, as in the first year the Colonial Museum had around 2000 visitors.

As in the formation of the National Museum of Canada, and to a lesser extent the Industrial Museum of Scotland, the National Geological Survey was the driving force behind the establishment of the Colonial Museum in New Zealand. This relationship is made very clear in the Museum's first Annual Report of 1866, which opens: 'One of the most important duties in connection with the geological survey of a new country is the formation of a scientific Museum, the principal object of which is to facilitate the classification and comparison of the specimens collected in different localities during the progress of the survey'.[149] At its outset then, the Museum housed samples of minerals, rocks, and fossils collected from throughout New Zealand in the course of the Geological Survey. This specialisation of the early Museum also had a bearing on the choice of first Director, leading to the appointment in 1865 of James Hector, a Scottish physician and geologist well known for his explorations in Canada.[150] Another striking similarity with the story of early museological development in Canada was the very close link between the *Colonial* Museum and the centre of Empire, Great Britain: 'In the period up to 1900, Hector arranged for many New Zealand specimens to be sent to the British Museum, London, as gifts or in exchange for European fossils and minerals. Amongst these were, unfortunately, a number of type specimens which would have been much more useful here than in Britain'.[151]

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[147]The site is located behind the present Parliament Buildings.

[148]Text from an exhibition entitled, 'The Proud Face of a Nation', held at the National Museum of New Zealand Te Papa Tongarewa, July, 1999.

[149]HECTOR, James. '1st Report. Colonial Museum and Laboratory. Memorandum Concerning the Colonial Museum', (Wellington: Colonial Museum Press, 1866), p. 1.

[150]BOLGER, Eamonn. 'Te Papa: Our Archives - A Unique Source of Information', (Wellington: Te Papa Press).

[151]BAKER, 'The Museum of New Zealand Te Papa Tongarewa - Where Have We Come From?', pp. 1, 2. See the discussion on 'core' cultures accumulating the best materials and achievements from the 'periphery' in the thesis Conclusion.

The intention to locate this new Museum within the prevailing schema of rationalist Modernity is clearly articulated by the Director, James Hector, in the first Annual Report of 1866: 'By this means only is a reliable basis obtained for a general system of geological nomenclature, the value, proof, and application of which to the development of the country depends mainly upon the preservation of minutely recorded information respecting the history of individual specimens'.[152] Most germanely, the author then proceeds to draw a distinction between the modern scientific museum and, 'unmeaning collections of curiosities', although recognising their co-existence in England in particular:

> In this respect a scientific Museum differs from one intended only for the popular diffusion of natural science - the former being a record office from which typical or popular Museums can be supplied with accurate information instructively arranged - a method which would prevent their lapsing, as is too frequently the case, into unmeaning collections of curiosities.
> This division of museums into two classes is now clearly recognized in England, and its adoption has been strongly recommended in the re-arrangement of the Natural History collections in the British Museum.[153]

Hector was synonymous with the first stage of the Museum's history, maintaining the Directorship for 38 years. During that time he greatly extended the scope of the Museum and established fruitful links with many other organisations via his own association with them. Over his long and incredibly full career, he accepted responsibility for the Patent Office Library, the Meteorological and Weather Department, the New Zealand Institute, the Botanic Gardens, Wellington Public Library, the Colonial Observatory, the Wellington Philosophical Society, the Board of Longitude, the University of New Zealand Council, and the Vaccination Board, and was Chief Inspector of Weights and Measures, all in addition to his main roles in the New Zealand Geological Survey and the Colonial Laboratory. Hector retired in 1903.

The wooden Colonial Museum soon proved to have inadequate space for its growing collections. In light of this, Augustus Hamilton, the Museum's second Director, campaigned for years for a larger building, until eventually plans were drawn up by the Government architect J. Campbell, for a much more ambitious structure. At this time the Colonial Museum was renamed the Dominion Museum in preparation for

[152]BAKER, 'The Museum of New Zealand Te Papa Tongarewa - Where Have We Come From?', p. 1.
[153]Ibid.

relocation, but this was the only change that occurred as the new Museum was never actually built. By this time, the Museum's priority had moved from geological investigation to a stronger emphasis on Maori history and culture. This came about as the intellectual and scientific community of the time feared that the Maori were vanishing, and wanted their past to be preserved.[154]

The Dominion Museum, first proposed back in 1910, was eventually built in 1936. It had a new neo-classical design by Gummar and Ford, and a new location on Buckle Street.
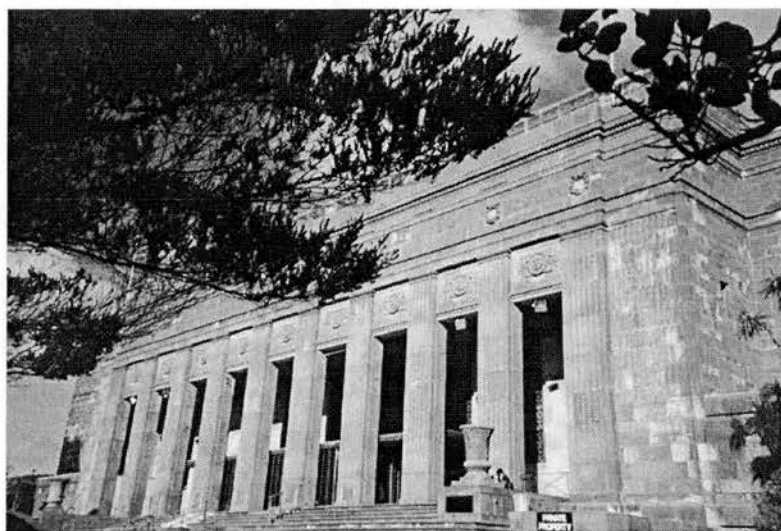
Fig. 27. The Dominion Museum of 1936, Buckle Street, as it appears today.

However, only a few years after its opening, the outbreak of the Second World War led to the building being taken over by the Defence Forces. After the war, the building was regained for use as a museum, and it remained as such for over fifty years. Ethnology and geology still featured strongly during this phase of the Museum's history, but there was also a great interest in other sciences. Indeed, the Museum gained an international reputation over this period for its research on birds, insects, fish, marine mammals, and plants.

Predictably, collections continued to swell after the war, again creating pressure on available space. The art collection in particular was burgeoning. Although it had begun as a small official group of works by mainly British artists, the art scene around the country was flourishing, with New Zealand art developing a national

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[154]This information is taken from the exhibition text of, 'The Proud Face of a Nation', Te Papa, July, 1999. See section 3.4.

identity and a growing cultural sophistication. As a result of this, art audiences were also growing considerably. In this climate, it was proposed that the National Art Gallery should move to a new building to occupy a site opposite Parliament.[155] A design was completed by McCoy and Wixon in 1984,
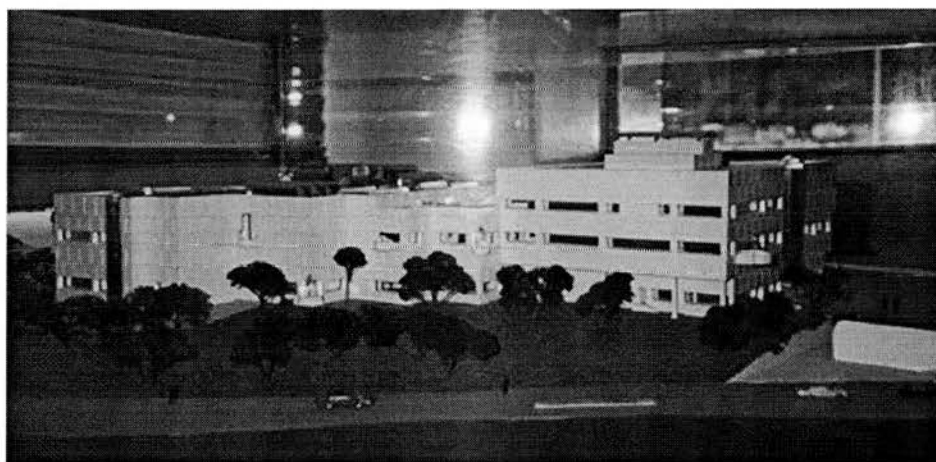
Fig. 28. Model of proposed design by McCoy and Wixon.

but it proved to be yet another abortive scheme: the new Government brought to power in the snap election of 1984 claimed it had insufficient funds for the project, and in the end a legal lobby led to the site being taken up by the new High Court and Court of Appeal buildings. Again, the only change proved to be one of name, with the Dominion Museum becoming the National Museum in 1973.

By the 1980s, the building was chronically overcrowded and, 'in 1986, after consideration of many options, Government approval was given for a new complex on a waterfront site. By 1989 the new site had been chosen, and the concept of the new institution had been formulated'.[156] The chosen site between Cable Street and the waterfront was such a strong contender that the other options were easily rejected on the grounds of being too small, too expensive, or not sufficiently stable.[157] In the same year, an international competition was instigated, not with the intention, as claimed at the Museum of Scotland, of finding the definitive design itself, but rather of choosing the most suitable architect to work with Museum teams to generate the

[155]In fact, this site on Molesworth Street is only 200 yards from Sir Basil Spence's 'Beehive' Parliament Building. This project was proposed in place of an extension to the Buckle Street Museum, and Alan N. Baker, the last Director of the National Museum of New Zealand, explained the reaction amongst staff at that time: 'We in the Museum truly felt we were robbed, and the Board acquiesced over the entire deal (let's shut up and take what we can get)'. BAKER, 'The Museum of New Zealand Te Papa Tongarewa - Where Have We Come From?', p. 5.
[156]BOSSLEY, Pete. 'Te Papa. An Architectural Adventure', (Wellington: Te Papa Press, 1998), p. 2.
[157]The initially proposed Chaffers Beach site was found to be unstable.

final building design. 38 proposals were evaluated by a team of judges from New Zealand, Australia, Canada, and the United States, and five firms, two based predominantly abroad and three in New Zealand, were selected to continue to the second stage: Jasmax Group, a merger of Jasmax Group Ltd., Bossley Cheshire Architects Ltd., and Gibbs Harris Architects Ltd.; Boon Philip Cox Group; Warren and Mahoney; Architecti; and Cardinal - TSE. Of these, Jasmax Architects was selected as the winner in May, 1990. Further administrative change occurred in 1990 with the establishment, despite much internal opposition, of a provisional joint structure of the National Art Gallery and the National Museum, and two years later on 1 July, 1992, the Museum of New Zealand Te Papa Tongarewa was established under the Museum of New Zealand Act.[158] Compaction of the site was carried out over eight months in 1992 and the early part of 1993, and construction began on the 36,000 square metre building in July. In 1995, the Queen and the Duke of Edinburgh toured the new structure, and in the same year the New Zealand Lottery Grants Board committed itself to providing 1.25 million dollars a year for 6 years for the development of national collections. Spurred on by this, Wellington City Council subsequently made a 10 million dollar commitment to the Museum.[159] The building was completed by the end of 1996, and the exhibitions were fitted out early in 1998. Unusually, the project stayed within its allocated budget of 280 million dollars. Thus the new Museum of New Zealand Te Papa Tongarewa, designed to 'powerfully express the total culture of New Zealand', opened its doors to the public on 14 February, 1998.

[158]During this time, support from both sides of Parliament (Labour and the National Party, who came into power at the end of 1990), proved crucial to the project's ultimate success.
[159]'1995/96. Making the Museum. A Review of Achievements', (Wellington: Te Papa Press, 1996), p. 3.

Fig. 29. View of Te Papa at twilight, from across Cable Street.
Fig. 30. Main Cable Street entrance to Te Papa.

It has been the intention of this Introduction to present the theoretical foundation of the thesis, along with the history and context of the practical subject of research: the three national museum buildings. In the subsequent text, the temporal, and hence spatial, parameters of the central casestudy, the Museum of Scotland, will be used as a framework for discussion. The Museum of Scotland's exhibition is divided chronologically into four principal display sectors: Prehistory to 900 A.D.; 900 to 1707; 1707 to 1914; and 1914 to the present day, and these will form the four chapters of this thesis. This framework offers the opportunity for a strong and integrated narrative in which theory and empirical evidence are interwoven, as well as allowing a dialogue to emerge between the three museums that would be stifled if each were restricted to a self-contained chapter. Most significantly, however, it allows us to construct an abstract, conceptual 'museum' or repository of ideas, in parallel to the physical buildings and displays under examination. From this intellectual model, important conclusions can be drawn.

CHAPTER ONE

1.1   Introduction

The three museums considered in this thesis all had the same prodigious brief, to recount the story of the 'nation' and its people from prehistoric times to the present day.[1] For example, the CMC defined its unique responsibility as being, 'to discover, preserve and disseminate knowledge of human achievement with special but not exclusive reference to Canada so as to generate interest in the Canadian legacy, to foster national understanding and identity, and to enrich the lives of Canadians and others'.[2] This aspiration is reiterated throughout the CMC's Architectural Programme, with the project goal later being defined as, 'the presentation of the story of human history and achievement in Canada set against the background of its natural environment and depicted with reference to its global context'.[3] The remits of both the MOS and Te Papa mirror this closely, except that both claim exclusive not just special national interest. This chapter, in following the exhibition boundaries of the MOS, will focus on the initial period up to 900A.D. In the MOS, Level 1 or the 'basement' floor is devoted to natural- and pre-history displays entitled 'Beginnings' and 'Early People',[4] the equivalent of which in the CMC is the 'First Peoples' Hall'.[5]

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[1]This chapter is distinct in this thesis as it covers, in Scotland, Canada, and New Zealand alike, a period in which the concept of 'nation', even in the loosest sense of pre-modern ethnies, was either embryonic or non-existent. This point is highlighted in the MOS by David Clark, Head of the archaeology section, as one of the three principal messages of the 'Early Peoples' display: 'Our main messages are: ... (2) That for 90%, in terms of time, of the human occupation of the geographical area of Scotland, the concept of a Scottish nation as we understand it, is now [sic.] meaningless.' Although it appears that this statement problematises the exploration of narratives of national identity within this exhibition and others like it, this has not been found to be the case. Despite the fact that 'nation' was unknown and irrelevant in this past or history, it is an inerasable feature of contemporary representations of such people and their land. However academic and detached the curatorial and design staff have attempted to be, traces of the pervasive contemporary concept of nation linger, albeit implicitly.

[2]Architecture and Planning Group, National Museums of Canada. 'National Museum of Man: Architectural Programme. Synopsis', (Ottawa: National Museums of Canada, 1983), p. 2.

[3]Ibid., p. 12.

[4]Although this floor is below street level, the architects labelled it 'Level 1', considering it too naturally well lit to be termed the basement.

[5]This is a specifically Canadian term. 'American Indian' or 'Native American' are preferred in the U.S.A.. However, as Richard West, Director of the Smithsonian National Museum of the American Indian in Washington D.C., explained at the Robert Gordon University 'Heritage Convention', the non-Indian community is possibly more aware of and sensitive about the terminology than the Indian
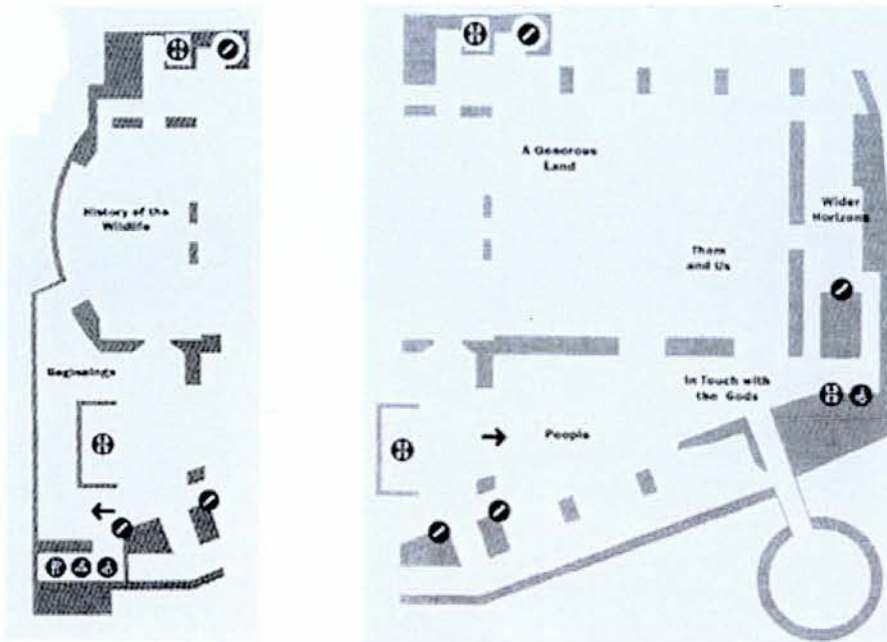
Fig. 1. Diagrammatic plan of 'Beginnings' display section, Level 1, in the MOS.
Fig. 2. Diagrammatic plan of 'Early Peoples' display section, Level 1, in the MOS.

Fig. 3. Model of 'First Peoples' Hall at the CMC.

community itself. Terminology aside, these 'first people' spread out across the continent in their smaller ethnic groups and developed distinct characteristics shaped and determined by the terrain they were to inhabit. The movement of people came in waves, and possibly the most distinct native Canadian identity, that of the Inuit, is an example of this: 'Although there were earlier inhabitants, the ancestors of the present-day Inuit arrived in Canada from Alaska about 1,000 years ago, and lived a semi-nomadic life fishing, hunting and gathering food, largely undisturbed by European settlers' [SAYWELL, John. 'Canada. Pathways to the Present', (Toronto: Stoddart Publishing Co. Limited, 1994), p. 11].

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At Te Papa, 'Awesome Forces' explains the formation of New Zealand from the break-up of the continental plate Gondwanaland, along with other geological phenomena, whilst 'Mountains to Sea' describes and recreates an 'enormous range of habitats, and the plants and animals that live there'.[6]
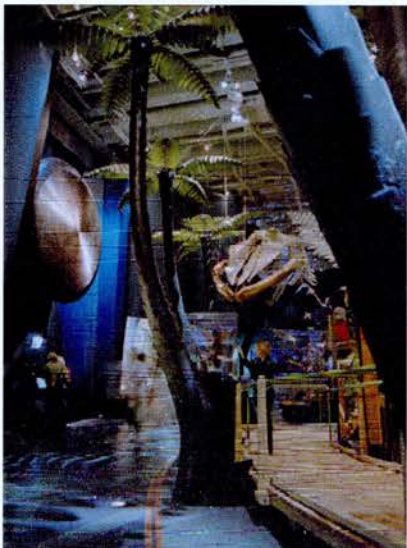
Fig. 4. 'Awesome Forces' display at Te Papa, which is housed within a globe.
Fig. 5. 'Mountains to Sea' display at Te Papa.

'Bush City' is an outdoor wildlife area intended to present New Zealand's varied natural environment in microcosm, whilst 'Mana Whenua' records the culture and achievements of New Zealand's first arrivals who landed on the nation's shores at the very end of the period with which this chapter is concerned.[7]

Fig. 6. 'Bush City' at Te Papa.
Fig. 7. 'Mana Whenua' at Te Papa.

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[6]'Te Papa Our Place. A Souvenir', (Wellington: Te Papa Press, 1998), p. 8.
[7]Mana Whenua literally means people here by right of first arrival, as opposed to the Tangata Tiriti, or people here by right of the treaty.

Thus, in this period from prehistory to 900A.D., all three museums depict their
'nation's' geology, natural history, and human development from earliest times. The
opening part of this chapter will focus upon their depiction of the natural world,
whilst the subsequent section will consider wider representations of national identity
relevant within this timeframe.

1.2   Landscape and geology: the bedrock of national identity

> 'Our buildings must be part of nature, must flow out of the land; the
> landscape must weave in and out of them so that, even in the harshness of
> winter, we are not deprived of our closeness with nature.'
>
> Douglas Cardinal. *Frozen Music*.[8]

Surprisingly perhaps, landscape, particularly in its geological dimension, emerges as
a leitmotiv in the architecture of each of the museums in question. Albeit to
different extents, all three buildings evoke and respond to their natural surroundings,
and as this influence is most pronounced in the fabric of the CMC, it is appropriate
to begin our investigation there. Cardinal and his firm were well versed in the
language of architectural symbolism. In his initial proposal for the design of the
Museum, Cardinal stressed this issue, and it was partly his wholehearted approach
to matters of representation and meaning which convinced the selection panel that
he was the appropriate candidate to create 'a symbol of national pride and identity'.[9]
Cardinal wrote:

> Symbols are the way we communicate. Words and sounds are symbols and
> writings are symbols of words and sounds. Pictures are symbols of feelings,
> events, and can communicate impressions beyond words in two dimensions.
> Sculpture goes beyond pictures to symbolize impressions. Architecture,
> perceived as living sculpture, symbolizes even more the goals and aspirations
> of our culture. My challenge is to evoke images, creating images in
> sculptural and architectural forms that symbolize the goals and aspirations of
> this national Museum.[10]

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[8]MACDONALD, George F., and ALSFORD, Stephen. 'A Museum for the Global Village', (Hull:
Canadian Museum of Civilization, 1989), p. 13, taken from a CTV documentary.
[9]Architecture and Planning Group, NMC. 'National Museum of Man. Architectural Programme', p.
14.
[10]CARDINAL, Douglas. 'Initial Design Proposal for the Canadian Museum of Civilization', p. 1, in
MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 15.

What emblems, allusions, and metaphors did he chose to represent the 'pride and identity' of Canada within the built form of the CMC? In his 1983 mission statement, 'A Vision for the National Museum of Man', he clearly and unequivocally places nature at the centre or zenith of his design philosophy. In poetic language, he traces the history of the land of Canada, focusing on the forces which acted upon it and the evolutions these brought about, and the following quotations comprise the first three pages of this 'inspirational' narrative:

> From the ocean emerged land and the spines of mountain ranges forming the backbone of our continent. In time, the sun, wind, and water, molded the jagged rock forms into the smooth, curved, sinuous forms of the foothills and plains. The action of these elements eroded the jagged rock forms and created sand and soil from which emerged the flora and fauna.
>
> The glaciers came, again changing the character of the continent, eroding the rocks, moving large masses, cutting deeply and sculpting the rock forms into new patterns.
>
> The glaciers receded and started to melt, ending the last ice age. As they melted, water poured out of them, down the rivers to the ocean, again causing sinuous grooves in the plains and the landscape and creating moulins. A new form of life grew around the melting glaciers and across the plains, and present man emerged.[11]

It is explicit from this prose that Cardinal intended the environment to be the principal source for his architecture at the CMC, a point which he expressed again, more succinctly, in an article featured in 'Museum' magazine: 'Instead of viewing the museum as a sculptural problem, instead of identifying all the historical forms and making them the vocabulary for my solutions, I prefer to take a walk in nature, observe how nature has solved its problems, and let it be an inspiration to me in solving mine.'[12] The rhetoric of natural symbolism could not be more clear, but how was this carried through into the Museum's architecture?

The design process for the CMC went though numerous stages, but even Cardinal's earliest attempt was supposedly linked to natural form.

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[11]CARDINAL, Douglas J. 'A Vision for the National Museum of Man', January 17, 1983, pp. 3, 4, 5.
[12]MACDONALD, George, and CARDINAL, Douglas J., "Building Canada's National Museum of Man: An Interpersonal Dialogue," *Museum*, no. 149 (1986), p. 14.
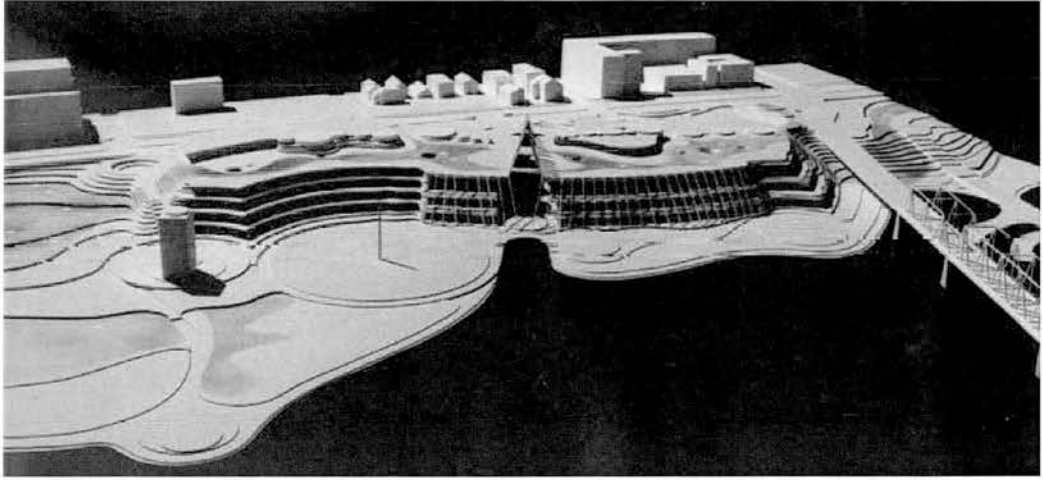
Fig. 8. Cardinal's earliest design concept for the CMC.

As seen in Figure 8 above, in this version the building is a single entity and is intended to resemble two petals of a flower, with a stamen, the section in the middle, protruding towards the river.[13] However, this visual analogy is weak, if discernible at all. By the time the design became consolidated, the originally intended natural metaphor was once again privileged. The Museum's form was proclaimed to be symbolic of the natural, geological formations which had been carved over thousands of years by the elements and which confronted the first inhabitants of Canada over 15,000 years ago, 'most anthropologists now agree[ing] that these first Canadians crossed over from Siberia during the last Ice Age, when there was a land bridge over what is now the Bering Sea'.[14] The three related natural configurations to be abstractly represented in the Museum's forms are the Canadian shield, the glaciers, and the great plains, and these can be seen in the curatorial wing, the exhibition wing, and the plaza respectively.

The Canadian Shield is the Precambrian rock formation that underlies Ottawa and forms part of the oldest section of the North American continent.

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[13]This information is taken from a speech given on 28 November, 1983, by Jean Sutherland Boggs, then chairman of the Canadian Museums Construction Corporation, in MACDONALD and ALSFORD, 'Museum for the Global Village', p. 24.

[14] SAYWELL, 'Canada. Pathways to the Present', p. 9.

Fig. 9. Map of the Canadian Shield.

Mineral rich, this 'shield' comprises a vast tract of land extending west from the Labrador coast to the basin of the Mackenzie and north from the Great Lakes to Hudson Bay and the Arctic, and is a multi-layered bedrock, which has been permanently eroded and scarred by the movement of glaciers. In what ways could the CMC's curatorial wing possibly be analogous to this topographical feature? Firstly, the pronounced horizontal bands or stripes of the building evoke the stratigraphical levels of differently coloured aggregates found within the shield. Within the curatorial wing, this horizontality is emphasised by the long, narrow, and unbroken strip windows, the glazing of which is very dark in contrast to the building's chalky-coloured Tyndall limestone cladding. This effect of horizontality is broken only twice, at either end of the building, where the limestone becomes the dominant feature and the windows are reduced to conventional rectangular openings.

Fig. 10. The distinctive banding of the CMC's curatorial wing.
Fig. 11. Traditional rectangular windows at the end of the curatorial wing.

Not an original concept, this architectural metaphor has a particularly famous precedent at 'Fallingwater', Bear Run, Pennsylvania, by Frank Lloyd Wright.[15]

Fig. 12. 'Fallingwater', Bear Run, Pennsylvania, by Frank Lloyd Wright. 1934-7.

The construction of this house, built between 1934 and 1937 as a rural retreat for the Pittsburgh millionaire, Edgar J. Kaufmann, '...replicates the layered sedimentary stone outcroppings of its site'.[16] Returning to the CMC's curatorial wing, another signifier of this analogy with the Canadian Shield is the cantilevered or stepped construction of the building. The plan of each level, although identical to the rest, is displaced by a set amount. On the Laurier Street elevation the ground floor is set back, with each successive floor above protruding by the same distance, producing a total overhang of several metres. Obviously, the concomitant effect of a stepped back, or receding facade is produced on the opposite river facing side of the building. Critically, just such undercutting and overhanging is a prominent feature of exposed areas of the Canadian Shield, bearing witness to its glacial formation. The combined effect of a pronounced banded horizontality along with the cantilevering or stepping of the

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[15] See also section 4.2.
[16] CROWE, Norman. 'Nature and the Idea of a Man-Made World', (Cambridge, Massachusetts & London, England: The MIT Press, 1995), p. 11.
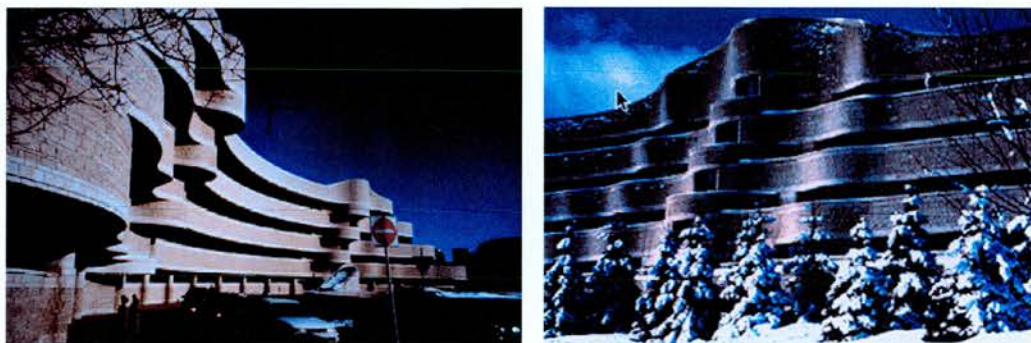
Fig. 13. Overhang on the Laurier Street facade.
Fig. 14. Receding river-facing facade.

building's mass, is designed to be representative of the very bedrock on which the Canadian nation was founded. However, although intentionally derivative of and resemblant to the rock formation of the Canadian Shield, without accompanying interpretation this correlation is at best obscure, and more honestly, invisible.

The most plausible analogy to the natural world is found in the Museum's public display building. This is an architectural form both symbolic of glaciers, and the forces produced by glaciers that acted upon and transformed the landscape of the Canadian Shield. The most dramatic feature of the wing, the vast glazed window, which faces northeast across the river and encases the Grand Hall, 'is emblematic of the great wall of the melting glacier itself'.[17]

Fig. 15. The glazed wall of the Exhibition Wing's Grand Hall.

These sheets of reinforced and tinted glass, which rise to a combined height of six storeys, do capture in essence the cool, hard, shiny, and transparent qualities of ice,

[17]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 24.

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as well as suggesting the very magnitude of the glacial landscape. As Cardinal lyricises:

> Hovering above these shapes the large crystalline roof reaches out to the heavens, like the mountains. There is a feeling of being within the sculpted interior of a glacier, looking up at the towering peaks. This roof will capture the sun's rays from sunrise to sunset, bending shafts of sunlight downward and onto the lush foliage and sparkling water in the Hall.[18]

The glacial allusion does not end here, as the architect intended that, 'the copper roof vaults will eventually turn green, and will represent the eskers and drumlins of gravel and glacial till as vegetation recolonized the land'.[19] This aesthetic link can be made, as it has been here, on the grounds of the roof's earthy brown and subsequently weathered natural green colouring, but just as important in this comparison is the rolling or hummocked form produced by the three barrel-vaulted structures, which diminish in height with increasing distance from the river front.

Fig. 16. Copper roof vaults of the Exhibition Wing.

As well as individual elements of a glacial landscape that have been evoked through the materials and forms of the Museum's public wing, the overall sculptural mass of the building supposedly resembles land carved and sculpted as a result of glacial action. Cardinal unambiguously articulated this intention when he wrote, 'the convoluted swirls shaped by glacial action are reflected in the rounded, sinuous forms of this Hall', and later, 'the ramps and levels of the building will resemble a

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[18]CARDINAL, 'A Vision for the National Museum of Man', p. 22.
[19]Ibid., p. 24.

carving, showing the influence of the elements and the water in their shapes and forms'.[20] This curvilinear, organic quality of the design referred to by the architect is strikingly obvious at a two-dimensional level in the Museum's plans[21]
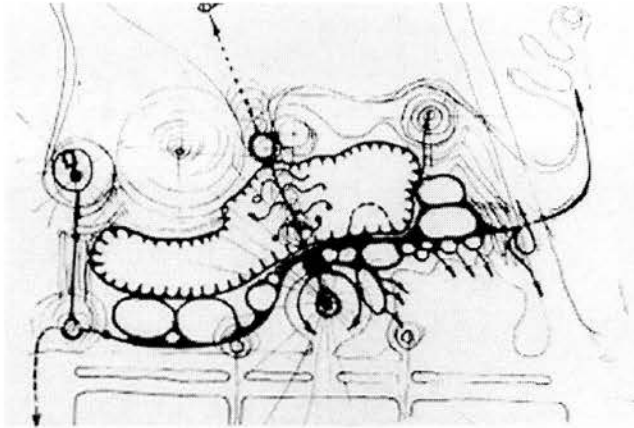
Fig. 17. Cardinal's early 'impressionistic' plan sketches of the CMC.

and is also discernible in the aforementioned hummocked roofscape. The facades, however, despite some modeling and cantilevering, belie this sculptural, organic model with their perpendicular axes and rigid geometricality.
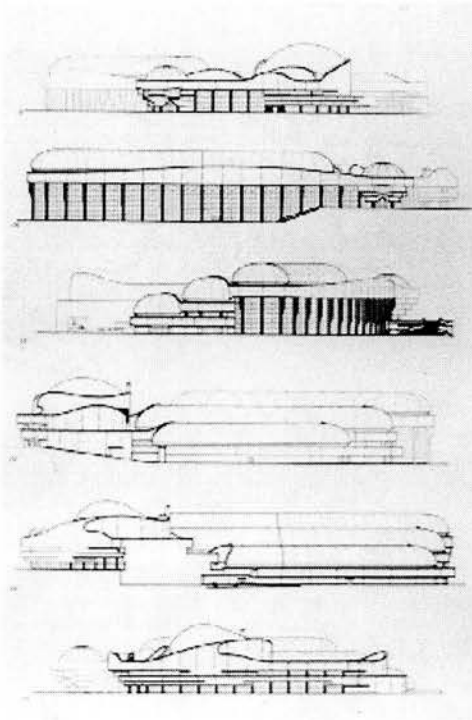
Fig. 18. Architectural elevations of the CMC.

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[20]Ibid., p. 22.
[21]Compare this with the subsequent discussion of native art, and the work of Alex Janvier in particular.

The previous quotation in its reference to, 'the influence of ... water in [the building's] shapes and forms', leads on to the final correspondence between the architecture of the exhibition wing and the glaciers which moulded the North American land mass. Towards the end of the last Ice Age as the ambient temperature rose, the glacial ice began to melt producing hundreds of gallons of meltwater. This mass of water formed streams, which flowed away, cutting into the rock shelf beneath. A figurative correspondence is apparent in the Museum's design, as this whole natural feature and process is, 'echoed in the watercourse flowing down between the two wings'.[22]

Fig. 19. Landscaped water feature at the CMC.
Fig. 20. Fireworks above the gap between the two wings of the CMC.

This 'watercourse' consists of a series of carefully stepped and landscaped pools, which, by originating at the top of the plaza between the two buildings, give the effect of having eroded one single sculptural rock form into the two discrete buildings now visible. Indeed, this symbolism is particularly apposite as just such a meltwater stream once ran through the Parc Laurier site itself.[23] Representations of a glacier's great wall of ice, eskers and drumlins, glacially eroded rock swirls, and meltwater streams all play a part in the strong visual connection between glacier and Museum display wing.

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[22]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 24.

[23]'The region was first inhabited by humans as the glacial meltwater lakes retreated some 10,000 years ago. The site's first use was probably as a regular campsite of traders of the Archaic period, about 6,000 years ago...'. [Ibid., p. 22].

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Alongside the Canadian Shield and the glacier, the final landscape element to be represented in the CMC is the territory of the vast and flat Canadian plains, 'over which mankind migrated millennia ago'.[24] These open tracts of land are supposedly symbolised by Cardinal through the parkland which he incorporated in front of and between the two separate Museum wings, but this allusion is tenuous in the extreme as not only is the majority of the available parkland area steeply sloping down to the river, but it is also far too small and restricted to evoke, even remotely, the vast emptiness and solitude of the Canadian plains.
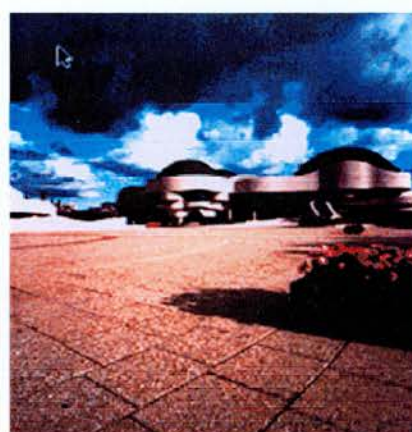
Fig. 21. William George Richardson Hind's depiction of a wagon train crossing the Canadian plains, entitled, 'Red River Cart Train', c. 1862.
Fig. 22. The plaza of the CMC.

The natural Canadian landscape was the principal inspiration behind the design of the CMC, with nature as it appeared at the start of the country's human occupation, rather than now or at any time in between, being the chosen design inspiration. This draws attention to the considerable period for which the Canadian landmass has been subject to human occupation, thereby masking Canada's position as a young nation on the world stage. By evoking the country's physical landscape as it appeared to its first inhabitants, the architect has bestowed upon the Canadian nation, whether consciously or not, a longevity and lineage with which it is not usually associated. This discourse is also apparent in other aspects of the Museum project, such as in the history and historiography of the site, the occupation of which in many ways mirrors Canada's wider history:

[24]Ibid., p. 24.

The documentary and archaeological investigations made it clear that Parc Laurier was a site of some representative significance in the nation's history. It was one of the first sites occupied in the National Capital Region. It played a part in native trade and subsequently in the fur-trade. It reflects the role of interior rivers in opening up the country. And it documents the evolution of the lumber industry: from logging and timber export, through sawmills to world leader in pulp and paper technology.[25]
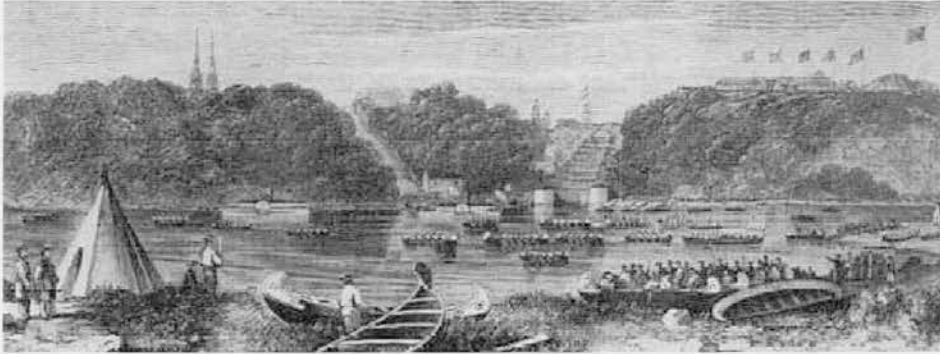
Fig. 23. Historical illustration of the Parc Laurier site.

Significantly, the site's extremely early date of occupation is emphasised in the National Museum of Man's 'Architectural Programme' of 1983, the comparison of the Ottawa region's 'Indian' settlement to the revered and venerable civilization of ancient Egypt being a blatant attempt to invest the Canadian nation with a similarly distinguished pedigree. The programme reads, 'the site's historical worth is reflected by its central role in inter-tribal trade, beginning with trade routes that *predated the pyramids* and involved the exchange of native copper from Lake Superior east, to as far as the Maritimes'.[26] [My italics]   The attention drawn to fossil encrustations within the Museum's Manitoba limestone may also be an attempt to highlight longevity and a similar approach is apparent in the MOS.
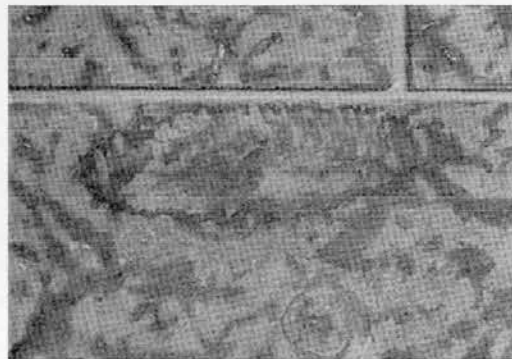
Fig. 24. Fossil imprints in the limestone cladding of the CMC.

[25]Ibid., p. 23.
[26]Ibid., p. 17.

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Just as the CMC draws on its country's geological landscape as a source of architectural inspiration, so the Clashach stone, which clads the outer shell of the MOS on its two street facing facades, is similarly charged by its architects with esoteric significance.

Fig. 25. Clashach stone cladding on the northern elevation of the MOS.

As Benson explains,[27] this stone was laid down by the wind drifting of sand 280 to 290 million years ago, when the present Scottish landmass lay south of the equator. He names the stone as the Museum's oldest exhibit, and the occasional fossilised imprint is highlighted as a powerful reminder of this legacy. Indeed, ideas of the incomprehensible magnitude of time, along with its dual transience and permanence, are linked to the use of this stone: 'On these northern and western facades and on the tower the Museum is clad in beautiful, honey coloured Moray sandstone.[28] It has a marvellous grain running through it, sometimes dark and gnarled as walnut, but really once windblown sand, now fixed for all eternity.'[29] In

[27]This information is taken from a presentation given by Benson at the Robert Gordon University 'Heritage Convention' entitled, 'Museums and Cultural Identity. Shaping the Image of Nations', held at the Royal Museum of Scotland on 22 September, 1999.

[28]The vast majority of the photographs of the Museum in Benson + Forsyth's own book are in black and white, partially in reverence to the Modernist aesthetic, and partly because they realised that the 'humane' and 'friendly' yellow colour could, if seen in excess, become 'nauseating'. [All terms used by Benson in his talk at the 'Heritage Convention'].

[29]MACMILLAN, Duncan, in BENSON + FORSYTH. 'Museum of Scotland', (London: August Media in association with Benson + Forsyth, 1999), p. 113. This rhetoric can also be associated with

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Benson's own words, the MOS was intended to be 'about time on a big and a fleeting scale'.[30]

The use of Clashach stone was also intended to produce a fusion between the natural and man made environments at the MOS, where, as Benson explains, 'landscape infects and leaks through the architecture'.[31] The stone that faces the prominent northern and western facades penetrates or 'leaks' into the entrance tower, processional route, and main orientation hall, thus sustaining the memory of the building's exterior within.

Fig. 26. Interior use of Clashach stone on the staircase wall of the Hawthornden Court

This effect of continuity across the entrance boundary is well explained by Macmillan: 'Your curiosity is aroused, you are invited in. Stone continues on the floor and the walls are channelled stone up to six feet or so',[32] and later the resultant ambiguity of interior and exterior space is acknowledged:

> At floor level the wall in front of you continues the line of the old building.
> Against it a stairway screened in stone leads to the first floor... The floor

the search for, and claim of 'national' longevity, which as will be seen later, is a recurring motivation in the MOS.

[30]BENSON, 'Heritage Convention', 1999.
[31]Ibid.
[32]MACMILLAN in BENSON + FORSYTH, 'Museum of Scotland', p. 114.

here is sandstone, too. But this does not feel like an ordinary indoor space, more indoors-outdoors like the courtyard of a castle.[33]

On a more practical level, the Clashach's inherent hardness and availability in large sheets were determining factors in its eventual choice, as was the significant figuration of its surface, which it was hoped would avoid large and monotonous areas of blank wall.
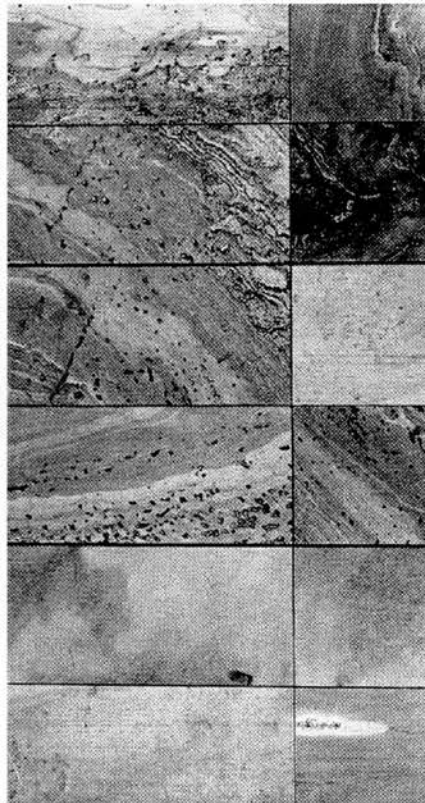
Fig. 27. Marked figuration of the MOS's Clashach stone.

Also, being the indigenous building material of Edinburgh, stone was deemed the most appropriate choice for the Museum. However, it is the paradoxical use of the material as a non load-bearing veneer or cladding, rather than as a compressive, load-bearing construction element, which is the most distinctive and characteristic feature of the Museum's Clashach stone, and it is this anomaly which answers John Allan's question: 'And how, incidentally, is it possible for a building clad in million

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[33]Ibid., p. 115. This castle analogy will be returned to later in section 2.3.

year old material to appear so contemporary?'[34] This aspect will be explored in more detail in Chapter Four.

Moving from material to form, the architectural language of the MOS is derivative of Scottish landscape and geology in several other ways. Firstly, the architects drew a comparison between the Museum site under excavation and the quarry on the Moray Firth from which the Museum's stone was hewed. This analogy is represented visually in their book, presumably with the intention that their building be seen as the product of a natural and sculptural process. This is comparable to the views of Tribal Elders expressed by Cardinal prior to his designing of the CMC: 'Remember. The building is there, but has not yet been uncovered.'[35]

Secondly, the gap between the entrance tower and the main building of the MOS has been likened by the architects to the dramatic sea-formed and filled ravine between the Old Man of Hoy in Orkney and the cliffs of which the rock stack was once a part.[36] However, this correspondence is tenuous.
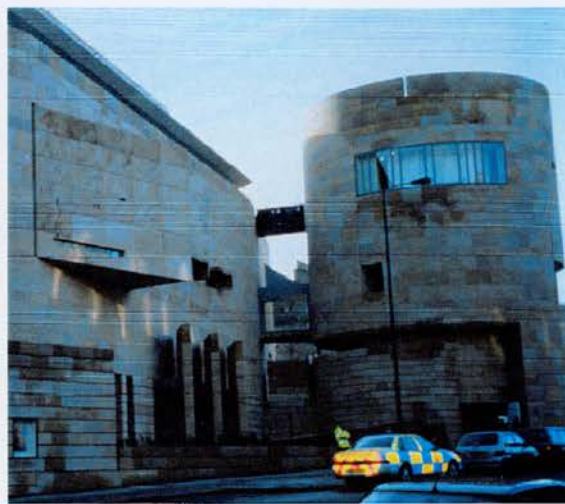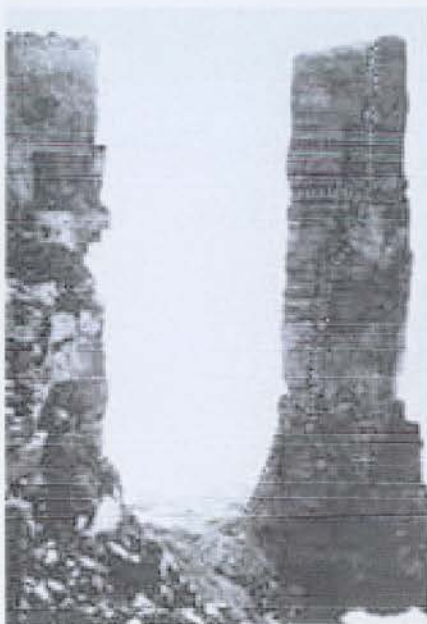
Fig. 28. The Old Man of Hoy, Orkney.
Fig. 29. Crevice between the MOS's round tower and Chambers Street elevation.

[34] ALLAN, John, in BENSON + FORSYTH, 'Museum of Scotland', p. 124.
[35] CARDINAL, in McKEAN, 'The Making of the Museum of Scotland. Draft Text', 1.1.
[36] This symbolism is alluded to in their book 'Museum of Scotland', and was pronounced openly by Gordon Benson at the 'Heritage Convention'.

In a related analogy, the walls of the Museum have been likened to the sheer faces of sea cliffs. Indeed, Macmillan cites the 'vertiginous crevasse' as one example of, 'the range and sovereign control of spatial experience [in the MOS which] is nothing short of astounding'.[37] This aesthetic analogy to sea cliff and rock stack of the Museum's walls and corner tower respectively, surely indecipherable without explanation, is intriguing as it draws substantially on the notion of the sublime. In evoking a towering rock stack and vertical sea cliffs, the architecture alludes to and attempts to exploit the most fundamental cause of the sublime, vastness or magnitude,[38] and its associated provocation of fearful excitement.[39] A lithic sublime based on the incomprehensible age of the material is also engendered. Such evocation of sublime landscapes increases the drama of the MOS building, but it is undoubtedly at Te Papa where the earth has provided the greatest design influence. In New Zealand, the violent unpredictability of the land, with its associated sublimity, has been a primary generator of form for the National Museum.

The physicality of 'the land of the long cloud' has historically been and still is a crucial component in the mental identity mapping of New Zealand by both its Maori and pakeha inhabitants,[40] and as in the previous two cases, the architecture of Te Papa also forges a basic and compelling connection with its country's geological landscape. A sense of the foundations of this intimate connection is expressed in

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[37]MACMILLAN, in BENSON + FORSYTH, 'Museum of Scotland', p. 122.

[38]The sublime was a hotly debated philosophical and aesthetic issue in the eighteenth century in particular, and many writers concluded, in accordance with Addison, that sublimity and physical vastness were equivalent. 'By *Greatness* [Adison declares], I do not only mean the Bulk of any single Object, but the Largeness of a whole View, considered as one entire Piece. Such are the Prospects of an open Champain Country, a vast uncultivated Desart, of huge Heaps of Mountains, high Rocks and Precipices, or a wide Expanse of Waters, where we are not struck with the Novelty or Beauty of the Sight, but with that rude kind of Magnificence which appears in many of these stupendous Works of Nature'. [In HIPPLE, Walter John Jr. 'The Beautiful, the Sublime and the Picturesque in Eighteenth-Century British Aesthetic Theory', (Carbondale: The Southern Illinois University Press, 1957), p. 17.]

[39]Slightly later, Edmund Burke wrote his seminal thesis, 'A Philosophical Enquiry into the Origins of the Sublime and the Beautiful', in which, 'the most original and influential idea advanced ... was that there is an element of fear in our enjoyment of the sublime', a sentiment which was then corroborated by Immanuel Kant. [Eds. BREDVOLD, Louis, and ROSS, Ralph. 'The Philosophy of Edmund Burke', (USA.: The University of Michigan Press, 1960), p. 256.]. Kant, in categorising the sublime, described his second type, the 'dynamically sublime', as the case in which, 'the vast magnitude is one of might', as in the 'boundless ocean heaved up', an example which appropriately applies to this case where the powerful swell of the ocean caused part of the sandstone cliff to crumble and collapse into the sea. [KANT, Immanuel. 'Critique of Judgment', translated with an Introduction by PLUHAR, Werner S., with a Foreword by GREGOR, Mary J., (Indianapolis: Hackett Publishing Company, 1987), first edition, 1790].

[40] Pakeha is the Maori word for non-Maori New Zealanders.

the literature on the Museum building, in the fused languages of science and mythology: 'In these shaky isles the land has many powers. It broke off from Gondwanaland more than 60 million years ago and drifted south. Rising and sinking many times, scoured by sea and sky, fished from the sea by Māui, it slowly formed itself...'.[41] The dominant theme to emerge is the sublimity and latent danger of the land: 'Enormous forces slumber beneath its wrinkled skin. Ruaumoko's powers are far from spent.[42] Earthquake fault lines cleave from north to south: on the bracelet of the Pacific Rim these islands are a quivering jewel', and it is this sense of the awesome power and unpredictability of the land that the architects, JASMAX, chose to transpose onto their design.

Had the Museum gone to Auckland, the 50 volcanoes upon which the city is sited would almost certainly have provided a design stimulus, but being based in Wellington, it was the series of fault-lines underlying the capital and surrounding countryside that provided design inspiration.

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[41]BOSSLEY, Pete. 'Te Papa. An Architectural Adventure', (Wellington: Te Papa Press, 1998), 'the earth papatüänuku'. That such a description in the building's official architectural guide can and does integrate the almost diametrically opposed languages of Maori native mythology and pakeha scientific rationalism, is indicative of the sincere commitment to create a truly bi-cultural Museum.

[42]'He [Ruaumoko] is the god of earthquakes, and the rumblings that disturb this land are made by him as he walks about. According to some he is the husband of Hine nui te Po.' [ALPERS, Antony. 'Maori Myths and Tribal Legends', (London: John Murray, 1964), p. 27.]
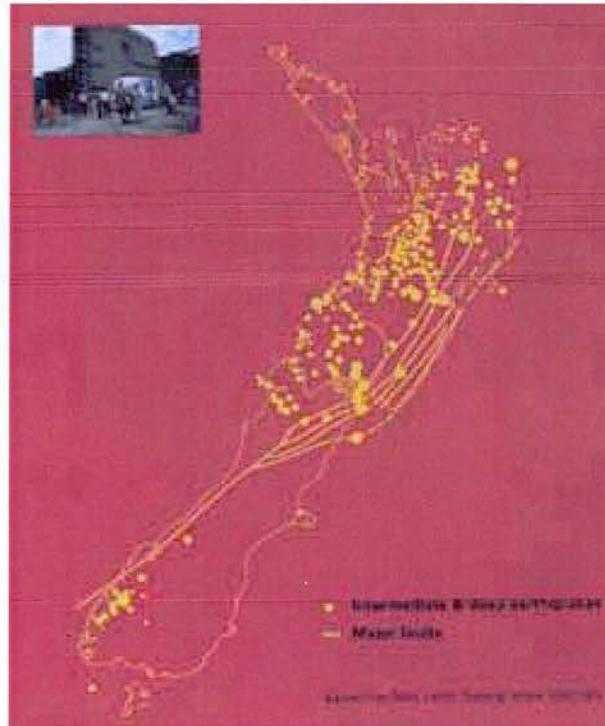
Fig. 30. A map of New Zealand's intermediate and deep earthquakes, (marked with dots), and major faults, (signified by lines).

More specifically, one particular earthquake fault line near the Te Papa site oriented from land to sea in an approximately north-easterly to south-westerly direction, was the primary generator.[43] In an attempt to express the idea of geological power or Ruaumoko, it was decided that a mighty wall running in parallel to this fault line should slice diagonally through the building.

Figs. 31 and 32. Marble-clad wall at Te Papa representing Ruaumoko.

Bossley of the architectural firm explains this device:

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[43]Indeed, the presence of this fault required the site to be compacted before construction could begin, a process which involved 10,000 drops of up to 30 tonne weights onto the ground, causing considerable disturbance to local residents.

This wall was developed as a massive, 4m-thick independent element reaching beyond and above the building, of unique material and colour, to suggest the presence of forces greater than the building itself, to emphasise the spatial flow from land to sea, from urban to rural, and to act as an identifiable circulation and orientation element housing stairs, ramps and lifts.[44]

This prominent component, clad in both polished and coarse-grained grey marble slabs, served many purposes: practically, '...creat[ing] a fissure of space which housed the dramatic new entry from the city...'[45]; and spatially, signposting the major axis of the Museum from the hills, through downtown Wellington, to nature and the sea.[46]

Fig. 33. Jasmax diagram showing the role of the symbolic fault line in the Museum's overall orientation.

However, it is its symbolic link to the uncontrollable might and intrinsic unpredictability of the land of New Zealand, these 'shaky isles', which is fundamental here. Like Cardinal at the CMC, and Benson + Forsyth in the MOS,

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[44]BOSSLEY, Pete, "Redirect, Redevelop", *Architecture New Zealand*, special issue, (1998), pp. 22, 23.

[45]Ibid., p. 22. This new entrance was relocated from the west façade.

[46]This notion of the building's alignment in relation to the physicality of its setting is of significance, and will be discussed later in this chapter.

here JASMAX have derived design concepts from the most basic element of nation: the earth on which it is founded. This incising wall or symbolic fault line is the most vivid, but not the only demonstration of this connection. On the seaward face of the building, 'inspired by the geological uplift of the New Zealand landscape, we designed sculptural planes and terraces to connect the museum and the sea'.[47] This sculptural formation is intended to be seen as the result of the earth force represented by the 'symbolic fault line' wall.

Fig. 34. Te Papa's harbour facade symbolising geological uplift.

To the architects, the 'celebration of qualities of the New Zealand environment seemed integral to a building attempting to express "the total culture of this country", as requested by the brief'.[48]

This sentiment is mirrored almost exactly by the CMC's first Director, who wrote, 'all this [the architecture] seems an immensely appropriate symbolic starting-point for the story of the Canadian peoples since their coming to the New World, told inside the museum'.[49] Pragmatically, this is true for all three museums. The symbolic design approach adopted in every case is certainly valid or 'appropriate' in terms of the museums' overall ambitions and briefs. However, this option to use landscape, particularly in its geological dimension, as an architectural leitmotiv was undoubtedly only one of many equally fitting design resolutions, and so its pre-eminence must be further explained. Why was this theme privileged as the primary

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[47]BOSSLEY, "Redirect, Redevelop", *Architecture New Zealand*, p. 47.
[48]Ibid., p. 19.
[49]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 24.

design generator, bearing in mind the common desire for, 'the creation of a symbol of national pride and identity'?[50]

The first stop in this search for explanations is the positivistic bond between the natural landscape of a country and its people's sense of collective national identity. The morphology of a country, whether it is mountainous or low lying, landlocked or coastal, is a key determinant of the nation's historical and political development. Switzerland's historical resistance to invasion and longstanding neutrality, for instance, can be firmly equated with its impenetrable mountainous terrain. Britain has likewise escaped foreign incursion through its island geography, but with their many land borders and predominantly flat terrains, Belgium and Poland may be considered the antithesis of this British or Swiss geographical autonomy, and frequent invasions and occupations attest to this fundamental difference. As well as effecting political stability, a country's natural landscape is also a factor in its social, industrial, and economic structuring, with the presence or absence of fertile lands, seas to fish, and most importantly natural resources such as oil to some extent determining the key industries and economic success of the nation. These political, economic, and social threads intertwine to create the national self image. An empirical link is evident between national landscape and identity: aspects of nation directly influenced by a country's terrain, such as security and prosperity, in turn influence the national 'personality'.

However, important though these practical connections are, it is a more aesthetic, abstract, and emotional tie to the landscape of 'home' upon which it appears that the architects of the three museums are drawing in their designs. In the case of the CMC, in attempting to evoke the geological masses of the Canadian shield and the great plains upon which, literally, the nation was built, as well as the rawness and magnitude of the robust glacial forces which carved the land, Cardinal has both understood and attempted to exploit the Canadian people's innate consciousness of their own piece of and place in the natural world. His narrative, like his architecture, makes a deep appeal to this part of the Canadian 'soul':

> Within this great continent, wherein lies this expansive and diverse nation, I
> could sense the feeling of time, the rhythm of time and the way nature had
> shaped and formed the land - that the formations had been carved by the
> elements and forces of nature, by wind, rain, the movement of water, the

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[50]See footnote 11.

warmth of day, the coolness of night, the seasons. I felt that the building itself should express the evolution of the natural formations.[51]

Analogously, at Te Papa the tectonic instability of New Zealand's islands has provided a crucial design inspiration, as has Scottish geological matter and form at the MOS, albeit to a lesser extent. It is clear that the landscape of each of the countries is an indisputable, if subconscious, generator or component of that most potent yet intangible quality: national identity. This natural source of inspiration is incorporated into or symbolised by the architecture of all the national museums in question. Nature and landscape are powerfully influential on our perceptions of place and self, or as Hough writes, '...the drama of the natural scenery strikes a primeval chord in all of us'.[52] These deeper attachments between nature and national identity, and their manifestations in the three museums, will be examined next.

1.3 Indigenous and 'colonial' relations to the natural world

'Only nature is inspiring and true; only Nature can be the support for human works. But do not render Nature, as the landscapists do, showing only the outward aspect. Penetrate the cause of it, its form and vital development.'

Charles L'Eplattenier, 1906.[53]

As Crowe explains, appropriately using museums as his exemplar, representations of nature bear witness to a fundamental cultural or ethnic divide:

Only a century or so ago we were creating places we called 'museums of natural history' for the display of artefacts of 'primitive societies', and places known as 'galleries of fine arts' and 'museums of science and industry' for the artefacts of industrial societies and their immediate predecessors. The implication was that primitive societies are natural and we are not, and that our artefacts are scientific, technological and artful, and theirs are not.[54]

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[51]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 15.

[52]HOUGH, Michael. 'Out of Place. Restoring Identity to the Regional Landscape', (New Haven & London: Yale University Press, 1990), p. 20. This effect of nature has long been a favourite moot point amongst philosophers, with Hegel and Kant being particularly engaged in this question. Architects also entered this debate, with Christopher Wren dividing beauty into two distinct facets: natural and customary, natural beauty being, 'from Geometry, consisting in Uniformity (that is Equality) and Proportion. Customary Beauty is begotten by the Use of our Senses.'

[53]CURTIS, William J.R. 'Modern Architecture since 1900', (London: Phaidon Press Limited, 1997), third edition, p. 305. L'Eplattenier was Le Corbusier's first teacher at La Chaux-de-Fonds.

[54] CROWE, 'Nature and the Idea of a Man-Made World', p. xvii.

These relationships are revealed in the text and architecture of museums, and are discernible to varying extents in each of the casestudies.

Fig. 35. Paolozzi sculptures at the entrance to the 'Early Peoples' display area.

On Level 1 at the MOS, the 'Early People' display is divided into four sub-sections, namely, 'A Generous Land', 'Wider Horizons', 'Them and Us', and 'In Touch with the Gods', and the title of the first of these gives a good indication of the point to be made. In using the evocative heading, 'A Generous Land', Scotland's countryside and nature are implicitly invested with plenteousness, fertility, and abundance. In this portrayal the motherland was certainly beneficent: 'Wild plants, animals, fish and birds were easy to come by. Taking what we could get from land, loch, river and sea was our way of life for more than 3000 years.'[55] Having foraged the paradisaic sounding 'Fruits of the Wild', the next stage was to enjoy the 'Fat of the Land'. As the Museum text exhorts, 'we ate well and gave thanks, our food *plentiful* and *healthy*. At first we lived off what we gathered from the land, the beasts we hunted and the fish we caught. Later, we farmed as well, growing crops and raising animals.'[56] [My italics] From these examples it is clear that the language of the Museum's text promotes an image of the land of Scotland as one of plenty and healthy fruitfulness. In this way, the land is implicitly endowed with Edenic overtones.

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[55]Museum of Scotland text. Floor title: 'Early People'. Theme title: 'A Generous Land'.

An almost identical rhetoric is apparent in the literature on Te Papa, as here in the Museum's architectural guide: 'The land has powers to shelter and nurture. Tāne's bush is lush and has been bountiful, but the time has come to care for it. Now it is protected from excessive clearing, valued for itself and not for what it is worth.'[57] This narrative continues, drawing attention to, 'fishing, wine production, sheep-farming, beef and dairy production: all these and more have prospered here.'[58] These texts clearly portray a munificent view of each country's natural resources, thus enhancing the perceived image of nation. This 'bounteous' interpretation of nature which is favoured in the museums' texts reveals the different relationships exhibited towards nature, and in New Zealand this is discernible between the 'first peoples' or 'Tangata Whenua', and subsequent colonial arrivals.[59] These relationships reveal much about ethnic and national identities of the countries in question, and their manifestations are observable in the architectural design of the museums.

The pervasive contemporary conception is, to quote Crowe, that 'primitive peoples live closer to the natural world and are better than we are at seeing their presence as integral with nature'.[60] This belief stems from the fact that the traditional native lifestyle was sustainable and largely non-interventionist, allowing a relatively balanced and passive or pastoral relationship with the natural world. As Crowe explains, 'for our ancestors and for those primitive peoples who live, we might say, as completely a part of nature, the man-nature duality is hardly so emphatic as we find it to be'.[61] Indeed, the natural world often provided the basis for societal structuring and spiritual belief, with Maori creation theory for example, telling how, 'Rangi the Sky-Father is separated from Papa the Earth Mother by Tāne, the god of nature'.[62] The oral tradition then relates 'Homeric tales of battles between the primal offspring, the gods of sea and sky, [which] are followed by sagas of famous demi-gods of Tawhaki and Rata, of Uenuku the rainbow god and of Tinirau and his pet whale.'[63] Maybe appropriately, the most telling expression of this intimate

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[56]Ibid.
[57]BOSSLEY, 'Te Papa. An Architectural Adventure', 'the earth papatūānuku'.
[58] Ibid.
[59] This relationship has a direct parallel in Canada, and is usually mirrored in the Scottish case by Scots and visiting travellers, but sometimes by the divide between Highlanders and Lowlanders.
[60]CROWE, 'Nature and the Idea of a Man-Made World', p. 22.
[61]Ibid., pp. 22, 23.
[62] A.W. REED. 'Myths and Legends of Maoriland', (Wellington: A.H. & A.W. Reed, 1957), p. 1.
[63] Ibid., p. 1.

relationship between native peoples and their land within any of the museums is found at Te Papa. Here, the architects attempted to express both Maori and pakeha cultures, using representations of each group's distinctive land settlement patterns. In the case of Maori culture:

> ... early dwellings, like those of some primitive peoples today, were often imbued with magic and situated according to a strict directional orientation and alignment with the heavens, or with an important topographical feature such as a distant mountain or sacred place, or an important feature of the immediate surrounding landscape ... In this way dwellings could be integrated with the order of the infinitely larger world outside them.[64]

Thus siting and directional orientation within the landscape is a definitive aspect of indigenous architecture. Research also revealed a preferential trend in the siting of marae and wharenui,[65] 'which involved orientation towards the most open landscape aspect, towards the rising sun, with enclosure behind'.[66]

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[64]CROWE, 'Nature and the Idea of a Man-Made World', p. 30. This is comparable to the Chinese art of Fen Shui.

[65]The marae is a sacred place which served both religious and social purposes. As a rule, maraes consisted of an area of land enclosed by four almost straight sides meeting at angles approaching right angles. In the construction of some maraes the ground plan was an almost true square, and in others was roughly rectangular with the long axis extending between the back and front, and in some maraes, the back was much wider than the front. The materials used in enclosing the marae were stones, which were often specially selected as to suitability, and also coral slabs, which suited the purpose. At the rear of the enclosure, there was usually erected a stone or coral slab platform which was either a single platform or consisted of two or more terraces. At the rear end of this enclosure, higher upright pillars were erected. [SAVAGE, Stephen. 'A Dictionary of the Maori Language of Rourotonga', (Wellington: The Department of Island Territories, 1962)]. 'Whare' means 'house'.

[66]BOSSLEY, Pete, "Concepts in Culture", in *Architecture New Zealand,* 'The Designing of Te Papa', special edition, 1998, p. 18.
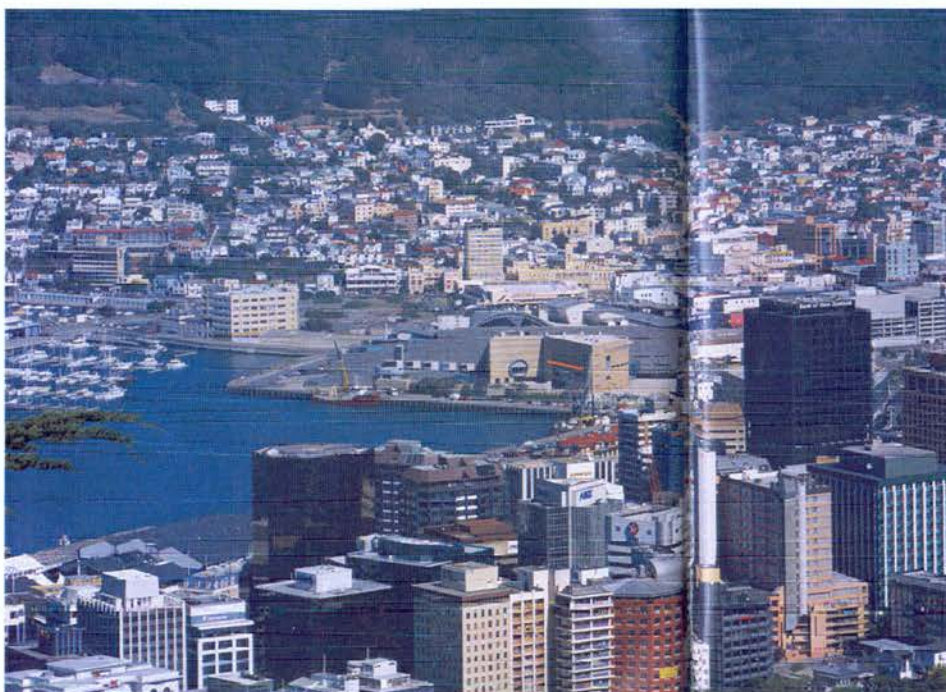
Fig. 36. Te Papa in its setting of harbour, city, and hillside.

These cultural preferences and requirements were transposed onto the finalised design in the alignment of the section containing the marae and the Maori Art and History Gallery, which was consciously, 'not as strongly part of the traditional museum culture'.[67] This area, 'faced northeast along an axis directed towards the most open landscape features (the longest dimension of the harbour and the low saddle formed by the Taita valley beyond), towards the rising sun'.[68] This propinquity or fusion between the built and natural environments was further strengthened by the development of this wing as a 'promontory in close contact with sea and sky'.[69]

[67]Ibid., p. 18.
[68]Ibid.
[69]Ibid.

Fig. 37. The long, open horizon of Wellington harbour.
Fig. 38. The promontory on the Museum's harbour facade.

Although such specific, culturally informed alignments to landscape elements are not a feature of either the CMC or the MOS, the contextualisation of both buildings within their natural settings is of considerable importance, as expressed by the architects of the MOS:

> The upper floors of the new building will have magnificent views of the Castle and the ridge of the old town to the north and Arthur's Seat and Salisbury Crags to the south east. Conversely, the building will be fully visible and a significant landmark from Calton Hill or the public terrace of the Castle Esplanade.[70]

Fig. 39. Edinburgh Castle from the MOS's restaurant terrace.
Fig. 40. The Museum's roofscape, with Arthur's Seat as a backdrop.

More specifically, a noticeable aspect of this visually prominent building was to forge this connection: 'The roof terrace, or 'hanging valley', occupies a unique position as a mediator between the major elements of the city's natural landscape. Instantly recognisable from the Castle Esplanade it would also be, arguably, the most significant urban elevation of the museum; a new monument on the Edinburgh skyline.'[71]

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[70]BENSON, "Benson + Forsyth", in *Mac Mag*, Nov. 1991, p. 6.
[71]Ibid., p. 6.

Fig. 41. The 'boat-shaped' roof terrace.
Fig. 42. The Museum's skyline seen against Salisbury Crags.

A similar desire for natural contextualisation is apparent at the CMC, where the 'Architectural Programme' or brief reads, 'the building must also harmonize with both the natural and man-made aspects of its setting and the opportunity to relate to views of the Parliament Buildings and the river landscape, with their connotations of national heritage, must also be exploited'.[72] However, evidence of this link to the immediate landscape is scant.[73]

The relationship between nature and the native identity is represented in completely different ways at the CMC. Firstly, it is significant to remember that it was nature as it appeared to Canada's first inhabitants thousands of years ago, rather than at any point in time since, that was favoured by Cardinal and his design team:

> The Museum will be a symbolic form. It will speak of the emergence of this continent, its forms sculptured by the winds, the rivers, the glaciers. It will speak of the emergence of man from the melting glaciers; of man and woman living in harmony with the forces of nature and evolving with them.[74]

This decision was certainly not taken arbitrarily, but as will be seen in section 1.4, was influenced both by Cardinal's own native origins, and the aforementioned notion that, 'primitive peoples live closer to the natural world and are better than we are at seeing their presence as integral with nature'.[75] Secondly, the entire interior of the Grand Hall is intended to represent the British Columbian coast as it would have appeared to its 'Indian' and European inhabitants at the end of last century.[76] The

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[72]Architecture and Planning Group, NMC. 'National Museum of Man. Architectural Programme', p. 14.

[73] Connections to the capital's 'Ceremonial Route', however, will be discussed in Chapter 4.

[74]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 15.

[75]CROWE, 'Nature and the Idea of a Man-Made World', p. 22.

[76]It is noteworthy that this period of flux was chosen rather than a more distant and settled era, and the effects of European settlement have not been ignored: 'The arrival of explorers, followed by fur

large area of blue grey marble flooring is designed to be representative of the Pacific Ocean, and surprisingly this allusion is taken seriously enough for only alternate strips of the marble flooring to be polished, in an attempt to produce a wave effect.
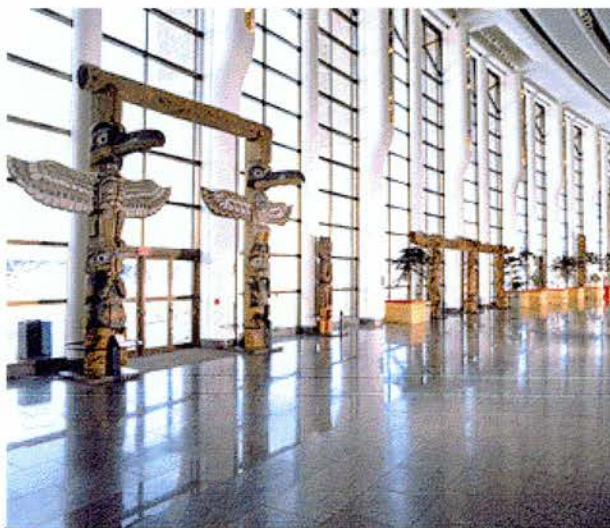
Fig. 43. Ocean wave allusion on the floor of the Grand Hall.

On the length of the Hall opposite the glazed facade and across the 'sea', are exact replicas of the houses of a traditional coastal village. These were made by ancestors of each tribal group, using traditional methods, in an attempt to achieve authenticity.[77] The resultant '...walk along the shoreline represents a walk from the southern to the northern coast - from the Coast Salish house past the Nuu-Chah-Nulth, Central Coast, Nuxalk and Haida houses to the Tsimshian.'[78]
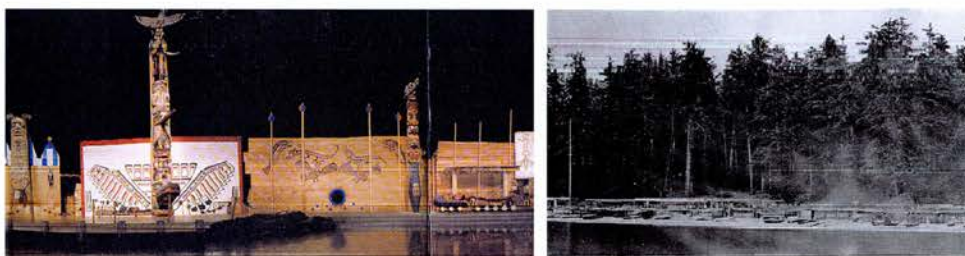
Fig. 44. Reconstruction of native houses in the Grand Hall.
Fig. 45. A Nuu-Chah-Nulth village, possibly Ahousat, in the 1860s.

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traders, missionaries, the British Navy, and settlers, brought tragedy, opportunity and dilemmas to every family on the coast.' [LAFORET, Andrea. 'The Book of the Grand Hall', (Hull: Canadian Museum of Civilization, 1992), p. 5.]

[77]See the discussion on heritage and authenticity in section 4.3.

[78]LAFORET, 'The Book of the Grand Hall', p. 6.

Further natural allusions are found in the form of the three habitats of which this coastline is comprised: a tidal pool; a grass-covered shore; and a river estuary.
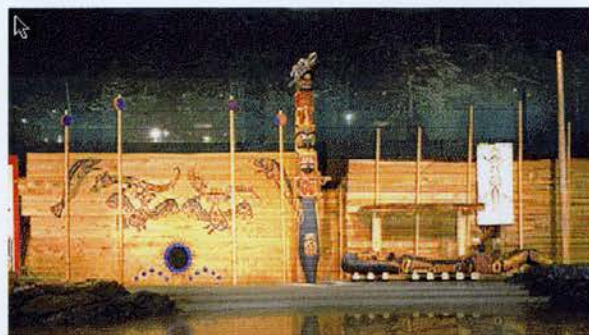
Figs. 46 & 47. Reconstructed habitats in the Grand Hall.

The final dominant landscape element, the dense forest, is represented in an attempt at three dimensionality, by an image reproduced on a double layer of scrim suspended from the ceiling to produce a complete backdrop.[79]

Fig. 48. The representation of British Columbian forest on suspended scrim.

[79]Scrim is an open-meshed cloth often used in theatrical scenery.

To complete the scene, a forest clearing is visible between the Nuxalk and Haida houses, and an audio tape plays the repeated call of the jackdaw. Lastly, although Japanese, the 'kare-sansui' garden located on the roof of the CMC's curatorial wing is deeply symbolic of early people's affinity with their natural environment.
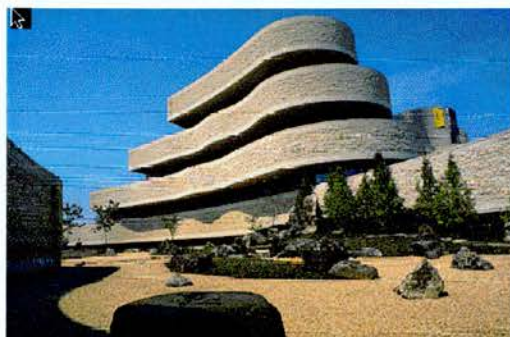
Fig. 49. The Zen Garden, in which nature is reduced to its essential form, is located on a rooftop plaza at the CMC.
Fig. 50. The raked gravel of this garden represents water that cascades down the mountain into the sea.

As Crowe explains, '...the Japanese garden stands out as a metaphor for a primeval world before human intervention. It represents a larger world where the islands of Japan lie at the center, an island world set in an eternal, protecting, and nourishing sea.'[80]

Landscape was also a critical and defining factor in the colonists' experience of Canada, although as Crowe rightly explains, this relationship was and still is quite different to that exhibited by the country's first peoples:

> For our ancestors, and for those primitive peoples who live, we might say, as completely a part of nature, the man-nature duality is hardly so emphatic as we find it to be. For us, like it or not, the idea of such a distinct duality is unavoidable. It permeates our every day thought, it is implicit in our philosophies, religions and legal systems, and it is especially integral with the foundations and conduct of our sciences.[81]

Albeit in the Irish context, the critic Dorrian explores the historical realities of this variance further, writing,

> ...the native could be seen as an observer of the land rather than as an actor upon it. The manner in which the natives drew upon their habitat was

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[80] Crowe, 'Nature and the Idea of a Man-Made World', p. 15.
[81] Ibid.

unrecognised as a basis for correct possession or ownership of the land; they did not seem to intellectually and systematically affect it, and it could therefore be seen as unclaimed, as waste, as a desert.[82]

Thus, unlike the native 'Indians' who lived as an integral part of land, altering it only superficially, the European explorers saw themselves as distinct from nature and the land, and wished to impose their will upon it in order to gain possession of it.[83] In Dorrian's terms, which draw attention to the erotic connotations of this relationship, '[the colonist's] vigour penetrates and goes beyond the surface of the land; he delves into the body, whether through navigation or agriculture, and in doing so satisfies it by making it productive.'[84] By systematic intervention into the natural order, the land was to be 'conquered' and 'tamed', and in the Canadian context the ultimate symbol of this colonial struggle against the enormity and wilderness of the new territory is surely the Trans-Canadian Railway, which was finally opened in 1885.
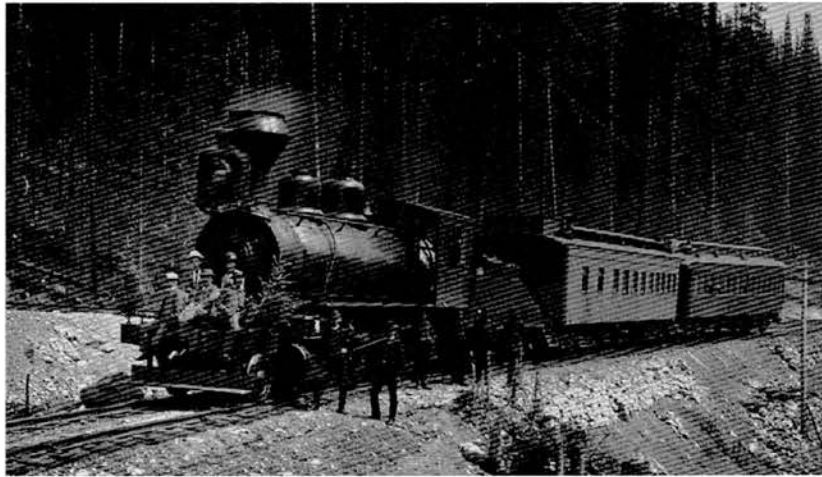
Fig. 51. A 100-ton mountain engine heads a special train carrying an inspection party on the newly completed Canadian Pacific Railway in 1889.

The primacy and respect of nature in the psyche of non-native Canadians can be traced back to this epic struggle against the harshness and magnitude of the terrain. Inevitably however, this fundamental disparity in the two cultures' connectedness to

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[82] DORRIAN, Mark. 'On Some Aspects of the Colonial Discourse on Ireland', (unpublished paper), p. 8.
[83] The Geological Surveys of Scotland, Canada, and New Zealand, as discussed in the thesis' Introduction, can clearly be seen in this context of 'possession'.
[84] DORRIAN, 'On Some Aspects of the Colonial Discourse on Ireland', p. 8. Such critiques draw attention to issues of gender surrounding the process of colonization.

and appropriation of their land was, 'to become a recurring motif in New World encounters, and has left a tenacious legacy.'[85]

Just as indigenous relations to landscape and nature were represented in the built form of the museums, and Te Papa in particular, so too are resonances of the 'colonial' appropriation of and intervention into the natural environment. This association is most clearly seen again at Te Papa, but this time in the outdoor re-creation of New Zealand's landscape and flora, called 'Bush City'. Here, the re-creation and harnessing of nature has placed this development firmly within the episteme of Modernity, with Newton's discovery of a predictable clockwise universe in the seventeenth century, having '...suggested that the way to understand nature lay in the abstraction of numbers rather than the humanistic cogencies of comfortable myth'.[86] As the designers of this area, Boffa Miskell, wrote, 'we overcame the harsh waterfront climate to develop Bush City, a microcosm of New Zealand's unique natural environment',[87] and the methods and not just the motivations of Modernity are apparent in this development: 'Streams, wetlands and forests have been created through our understanding of natural processes and up-to-date techniques.'[88]

Figs. 52 & 53. Nature recreated and tamed in 'Bush City'.

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[85] Ibid.
[86] CROWE, 'Nature and the Idea of a Man-Made World', p. 22.
[87] BOSSLEY, "Redirect, Redevelop", *Architecture New Zealand*, p. 47.
[88] Ibid.

Moving to the CMC, the early history of Canada's national museum, as charted in the Introduction, draws our attention to a similar but more fundamental connection. The CMC owes its very presence to this colonial desire for knowledge and appropriation of the land, with exhibits from the country's Geological Survey forming the basis of the collections of its forerunner, the National Museum of Canada. The Geological Survey was inseparably bound to progress towards a National Museum, or as Loris Russell explains the situation, the two bodies were 'inextricably combined',[89] and as already seen, this link was broken only in 1950 after one hundred and nine years.[90] Thus colonial research into the modernist specialisms of geology, geography, and natural history of the land of Canada, was undoubtedly the dynamo behind the formation and initial continuance of the National Museum of Canada.[91]

Paradoxically, despite, or probably indeed because of this 'colonial', modernist need to channel and control the natural world, the very disorder and asymmetry of nature began to be revered. The Picturesque movement began to flourish in Europe and its colonies in the late eighteenth and early nineteenth centuries, and as will be seen in subsequent chapters, echoes of this powerful and emotive aesthetic are still apparent today in the museums in question. In the Canadian case, although a typical or representative national scene of mountains, lakes, and fir trees exists, especially in the minds of non-Canadians,

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[89]RUSSELL, 'The National Museum of Canada', p. 6.

[90]'The National Museum of Canada. Historical Sketch', p. 2.

[91]This is shown as, although in 1877 the Parliament 'encouraged the Survey to collect ethnological and historical objects, in addition to the geological, archaeological, botanical and zoological material already collected', it was not until 1956 that a natural history branch and human history branch, comprising archaeology and ethnology divisions, were created in the Museum.

Fig. 54. 'Black Spruce in Autumn' by Tom Thomson, 1916.

it is the vast variety of geological foundations and ecosystems, from the Rocky
Mountains, across the expansive dry plains, to the battered coastline of Nova Scotia,
which combine to create the deeply resonant and holistic connection between the
country's people and the land in which they dwell. National culture has
subsequently both drawn from and enriched this natural resource or perspective,
with the rural idyll of Prince Edward Island being forever immortalised in L.M.
Montgomery's 'Anne of Green Gables' novels. More recently since the Second
World War, the Canadian 'Group of Seven', 'painted the beauty, drama, and
wildness of Ontario's Georgian Bay landscape and so created an appreciation for
wild scenery that had not previously existed.'[92]

Fig. 55. 'A Northern Lake' by Tom Thomson, 1913.

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[92]HOUGH, 'Out of Place', p. 23.

In the Canadian context, an idealised harmony between native 'Indians' and their virgin landscape has been a popular and recurring subject in much European Canadian folk art, as here in Stanley Williamson's 'Gem of the Forest' from around 1900. The perceived link between native peoples and the natural world is apparent in much national romantic culture.

Fig. 56. 'Gem of the Forest' by Stanley Williamson, c. 1900.

As already discussed, the immediate natural world is also highly significant to New Zealand's island inhabitants, with the Maori, just like the native Canadian Indians, finding nature and landscape a rich and unparalleled source of myth, as well as social and spiritual guidance. In Scotland, the rugged and evocative highland terrain of bens and glens is deeply imbued with a national romance stemming from the inherent aesthetic sublimity and picturesque appeal of the aspects it affords. This resonance of the Highland landscape was later enhanced and imbedded into the national culture and consciousness by novels such as Robert Louis Stevenson's 'Kidnapped', 'The Flight of the Heron' by D.K. Broster, and most influentially, Walter Scott's 'Waverley' novels.[93] Reinforcing this literary effect, the visual arts also served to bolster the 'primitive' and 'majestic' image of the Highlands, with paintings such as Landseer's 'Monarch of the Glen' becoming iconic representations of Scotland's resonant Highland geography.

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[93] For further discussion of this nationally Romantic culture, see section 2.3.

Fig. 57. 'Monarch of the Glen' by Edwin Landseer, 1851.

Within the MOS, this aesthetic of National Romanticism is exploited in the roof garden, where in the words of its architects,

> selected archaeological and geological fragments would be placed … where they could be viewed in a natural landscape of Scottish grasses, shrubs and wild flowers, rather than the decontexturalised environment of a museum interior. The fragments could be seen in the wind and rain, against a backdrop of Arthur's Seat, the Salisbury Crags and Castle Rock.[94]

To conclude this exploration of the relationship of both indigenous and colonial peoples to the natural world, geological landscape and nature, both powerful generators of national identity, are clearly represented and symbolised within the exhibitions and architecture of all three museums, albeit to varied extents. At the MOS, this narrative becomes a symbolic journey: 'The long ascent from sedimentary compression to this aerial release, place[s] the visitor himself in the larger showcase of Edinburgh and its environs, [and] reveals the central force of nature - and specifically Scotland's landscape - as the constant factor in the story.'[95]

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[94]BENSON, "Benson + Forsyth", in *Mac Mag*, p. 6.
[95]ALLAN, in BENSON + FORSYTH, 'Museum of Scotland', p. 127.

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1.4　The myth of resourceful people

'We enjoy the fruits of the plains and of the mountains, the rivers and the lakes are ours, we sow corn, we plant trees, we fertilize the soil by irrigation, we confine the rivers and straighten their courses. In fine, by means of our hands we essay to create as it were a second world within the world of nature.'[96]

Cicero.

Thus far, aspects of ethnic and national identity relating to landscape and nature have been explored in each of the museums, but more direct cultural representations of 'early peoples' exist within the museums' texts and designs. The first theme, which is common to all the museums, relates to these early people's proficiency in utilising their land's natural 'bounty'. Turning first to the MOS, Clark, the Head of the Archaeology section, wrote, 'our main messages are: (1) that people in prehistoric and early historic times are not to be regarded as squat grunting savages leading brutish lives.'[97] In the main, public preconceptions of the societies that existed in pre- and early history are closely equated to notions of primitivism and barbarism. However, the archaeological curators at the MOS were desperately trying to avoid such regressive labelling within their representations of Scotland's early peoples, but *how* are such negative predispositions challenged within the display, and *why* was this intellectual stance adopted?

Within the first sub-section of 'Early People', namely 'A Generous Land', the idea of a primeval, undeveloped, and rudimentary population is challenged immediately by the introductory text. It reads: 'Here, early people use their wits and skills to make the most of the land and its resources, allowing them to live comfortably and well.'[98] Without delay, through the use of the word 'wits', the curators have conferred upon these earliest humans a reason, intelligence, and ingenuity which is often missing from similar discourses. The notion of the ignorant savage is rejected. Just as important, is the use of the word 'skills'. This conjures up ideas of accomplishment, industry, craftsmanship, and expertise, and these projections are then followed up in the subsequent displays in the main gallery space. Here the first theme, 'Fat of the

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[96]CICERO, 'De Natura Deorum', trans. by H. Rackham, Loeb Classical Library (Cambridge: Harvard University Press, 1979), 2.60.

[97]Note from David Clark to Jenni Calder of 27 August, 1991, in McKEAN, 'The Making of the Museum of Scotland. Draft Text', pp. 2.8, 2.9.

[98]Museum of Scotland text. Floor title: 'Early People'. Theme title: 'A Generous Land'.

Land', clearly emphasises both the skill and knowledge employed by these early people in obtaining and processing their food: 'We were butchers, bakers, cheese-makers and we were cooks. We knew our plants, roots, nuts, fruit, vegetables and fungi.'[99] Later on, the section on 'Weaving and Winding' similarly stresses understanding and ability, stating, 'We could wind, we could twist, we could plait, we could knot. We knew what was strong', and the section on 'Tilling the Soil, Tending the Beasts' also introduces the inventiveness of these pre-historic people, forming a strong discourse of *progress*: '...Later we brought in new animals and plants. Ploughs replaced ards and helped us grow more. We improved other tools to make life easier.'[100] Through the medium of the exhibition's text, the curators have tried to dispel the notion of the primitivism of early people, instead emphasising their skill and knowledge.

Why has this perspective been promoted? The straightforward answer to this question from a modernist, historicist point of view, is that the surviving material evidence points to a reasonably high degree of sophistication in the modes and methods of the everyday life of these societies, and this is undoubtedly the principal motivation of the curators. However, it is also possible that the curators have been tempted to portray Scotland as a land of plenty, and her people as sophisticated and resourceful, in order to create a 'national' continuity or lineage of skill, worth, and legitimation. Indeed the search for, and subsequent publicizing of advanced social, cultural, or intellectual pedigrees is a common feature of most modern nations. For example, the ancient civilisations of Rome, Greece, and Egypt, are all strongly promoted by the current nation-states within whose boundaries these previous societies existed, just as the 'Book of Kells' is revered in Ireland for providing evidence of a venerable intellectual tradition. Such sources of pride and legitimisation are certainly emphasised in the contemporary quest amongst nations for power and status. However, such an interpretation within the MOS may seem improbable, or even far-fetched, until one considers the vastly different ways in which Scotland and the Scots have been viewed, and indeed have viewed others, over the ages, and the hidden agendas promoting some of these outlooks. This historiography will be explored in Chapter Three.

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[99]Ibid.
[100]Ibid.

This conceptual stance goes beyond the written word, however, being given three-dimensional resonance in the Museum's commissioned artwork as well as in its architecture. Firstly, with part of the Museum's five percent 'art for architecture' budget, the artist Eduardo Paolozzi was commissioned to design display cases for the best examples of prehistoric jewellery from the amassed collections. These were to be housed in the triangular space below the Hawthornden Court, at the start of the 'Early Peoples' exhibition.[101] Revealingly in this context, Paolozzi chose to create futuristic, robotic figures out of metal to 'model' the various artefacts. This 'hi-tech' interpretation of the brief is a clear visual symbolisation of the narrative of sophistication and advancement already discussed, and is not the only physical embodiment of this intellectual stance.

If a 'step back' is taken to consider the design of interior spaces, we find that the 'In Touch with the Gods' exhibition space is strikingly and poignantly reminiscent of circular prehistoric burial cairns, and in particular Maeshowe on Orkney's mainland. This powerful visual analogy begins with the gently sloping passageway leading northwards from the central triangular space, which is dark, and if not claustrophobic as at Maeshowe, then certainly enclosed. The similarities continue as this 'tunnel' opens out into a round, high-ceilinged cavity, located in the 'basement' of the round tower, which is of a similar scale to the 4.6 metre-squared main chamber of the Maeshowe tomb. The human remains found at Maeshowe reveal it to have been used as a burial chamber in the Neolithic period, and this aspect of prehistoric society is traced in the exhibition, which contains inscribed gravestones, and other relics and artefacts of death. The complex and advanced philosophy and spirituality of these societies, physically demonstrated by the alignment of the Maeshowe passageway to the sun on the shortest day of the year, is therefore clearly articulated through both the display and its physical setting. Indeed, in a strikingly similar narrative to that propounded about the CMC's site, the early date of construction of Maeshowe is flaunted and compared with that of other more esteemed civilisations: 'it is the finest chambered tomb in north-west Europe. It was built around 5000 years ago – *earlier than the pyramids of Egypt and the legendary golden age of China*',[102] with the architects of the MOS intentionally drawing on this impressive legacy.

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[101] See figure 35.

[102] ASHMORE, Patrick. 'Maes Howe', (Edinburgh: Historic Scotland, HMSO Books, c.1988), p. 3.
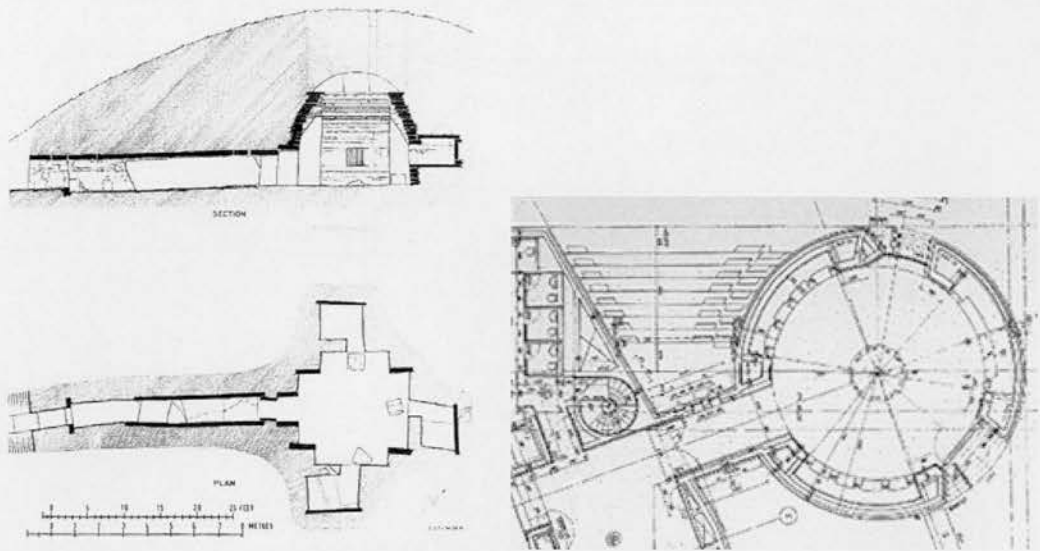
Fig. 58. Diagram of the 35 metre diameter and 7 metre high mound of Maeshowe, which contains
a passage and burial chambers, and was built within a century or two of 3000BC.
Fig. 59. The 'In Touch with the Gods' exhibition space.

Moving outwards again, the Museum's form as a whole resembles that of the Iron
Age brochs which cover Scotland from Galloway to Shetland. In general terms, a
broch is a '… lofty circular tower of dry-built masonry. Its wall is immensely thick,
as much as 20 feet at the base in some examples, and encloses a central courtyard
space 30-40 feet in diameter.'[103] Cruden continues:

> The lower part of the wall is structurally solid, frequently containing one, two
> or three chambers within it, but above it is without exception of hollow wall
> construction. The void between the inner and outer walls is spanned at
> regular vertical intervals of about five feet by galleries formed of flagstones.
> The floor of each gallery thus forms the roof of that below. These galleries
> run round the entire circumference of the broch. Each is interrupted by a
> stair, also contained within the hollow of the wall, which begins usually
> above ground floor level and winds round about half of the circumference to
> the wall top.[104]

This characteristic constructional envelope of the brochs is clearly echoed at the
MOS, most prominently in the double-layered eastern wall adjoining the Royal
Museum. To make this historical reference complete, this wall follows a slight
curve and contains a staircase. This derivation of form, as seen in Figures 60 and
61, is unmistakeable.

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[103] CRUDEN, Stewart. 'The Brochs of Mousa and Clickhimin Shetland. Official Guide',
(Edinburgh: His Majesty's Stationary Office, 1951), p. 3.
[104] Ibid.
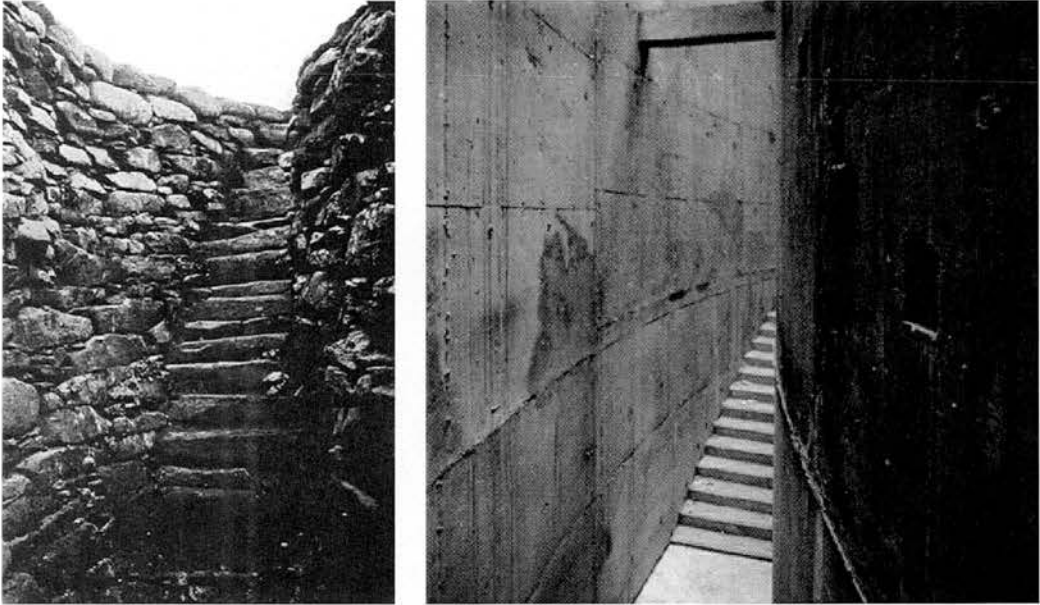
Fig. 60. The mural stair, Broch of Clickhimin, Shetland.
Fig. 61. Eastern staircase at the MOS during construction.

Although the architecture of Te Papa is not particularly relevant in this context, Cardinal's intentions for the design of the CMC show a comparable discourse:

> It will show the way in which man first learned to cope with the environment, then mastered it and shaped it to the needs of his own goals and aspirations. It will depict man as a creature of the earth who knows his tremendous power to change his environment, yet understands that he must live in harmony with it.[105]

Firstly, several simple references to traditional material culture can be distinguished. For instance, the interior roof of the Grand Hall, as seen from the concept drawing overleaf, was intended to form the contours of a canoe, an object of great practical paramouncy and prestige in native society. In the finished building, this allusion is unambiguous.

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[105] CARDINAL, 'A Vision for the National Museum of Man', p. 23.
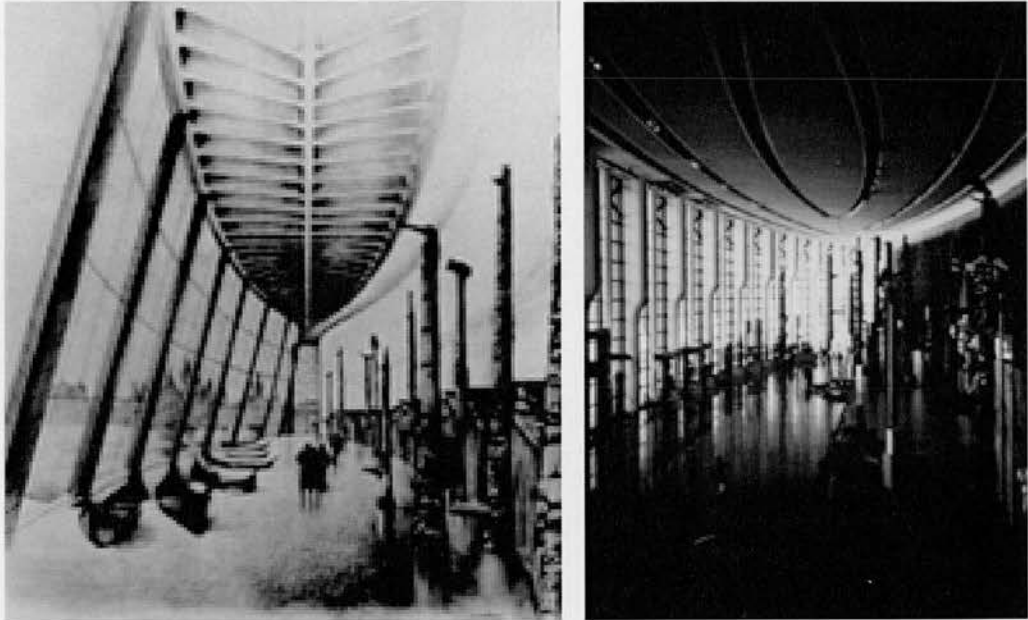
Fig. 62. An early concept drawing of the Grand Hall.
Fig. 63. The Grand Hall as built.

To heighten this analogy, the fins or columns of the Hall's glazed facade, when seen as here in profile, resemble canoe oars.

Fig. 64. Oar-shaped columns of the Grand Hall's glazed wall.

Rather than being viewed as a man-made intervention into nature, in the Canadian consciousness the canoe is often considered as an organic part of the landscape, as here in MacDonald's 'Mist Fantasy'.

Fig. 65. 'Mist Fantasy, Sand River, Algoma', by J.E.H. MacDonald, 1922.

A quite distinct resemblance is apparent at the main entrance to the same building. This rippling stone projection, which draws in visitors from the Laurier Street side, is clearly evocative of a face, with light coloured protruding stonework and dark coloured recessed windows representing eyes, a nose, and a mouth.

Fig. 66. The Laurier Street entrance/exit to the Museum's display wing.

With the three copper topped, barrel vaulted roofs running directly backwards from this point, the hard cased bodies of certain crustacea, reptiles, and amphibians are certainly brought to mind. However, the more usual reading of this feature as either a totem face, native mask, or mythical thunderbird, links the built form of the Museum to its material culture, and is probably the most likely inspiration: 'The

exterior features sly, subtle details incorporated into the design. Blink while walking through the entrance and you'll miss the quietly disguised Thunderbird.'[106]

This leaning towards the native Indian identity, however, is at least in part a result of Cardinal's own native origins.

Fig. 67. The architect, Douglas Cardinal, in his traditional native dress.

As Cardinal's biographer, Boddy explains that, 'Cardinal's Métis background was not a factor in the selection process ... Yet his architectural ideas - deeply influenced by the natural landscape and the elements - cannot be understood without reference to the native world-view'.[107] In addition to the more patent and 'literal' references already described, an abstract reflection or interpretation of the indigenous people's natural 'world-view' is in evidence. In opposition to the progressive linearity of Western Christian ideology, native Indian tradition with its potlatch culture and affinity to nature, is inherently cyclical. This cultural and spiritual philosophy finds visual representation in modern native art, such as in that of Alex Janvier, who was commissioned to provide artworks for the Museum.

[106]HAMMETT, Carter, "The Building of an Architect", *Metro* , May, 1989.
[107] BODDY, Trevor. 'The Architecture of Douglas Cardinal', (Edmonton: Newest Press, 1989), p. 10.
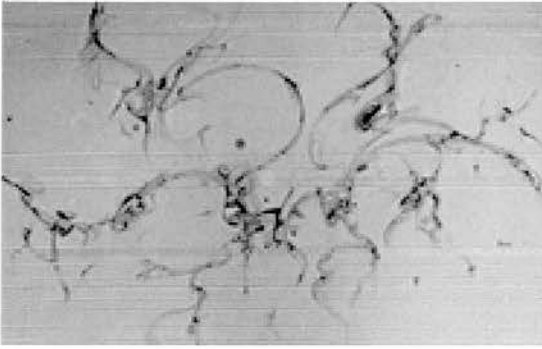
Fig. 68. Painting by Alex Janvier.
Fig. 69. 'Morning Star' ceiling mural at the CMC by Alex Janvier.

Of these, his ceiling mural, 'Morning Star', in particular portrays the circular, recurrent pattern of indigenous Canadian thought and belief. Within this context, the curvilinear organicism of Cardinal's architecture begins to take on new meaning.[108] It can now be seen as a part and continuation of this traditional philosophy.

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[108] See Figure 17.

CHAPTER TWO

2.1   Introduction

Leading on from the discussion of prehistory in Chapter One, this chapter is concerned with the historical period from 900 to 1707A.D. or pre-Modernity, which corresponds with the MOS's ground floor 'Kingdom of the Scots' display.
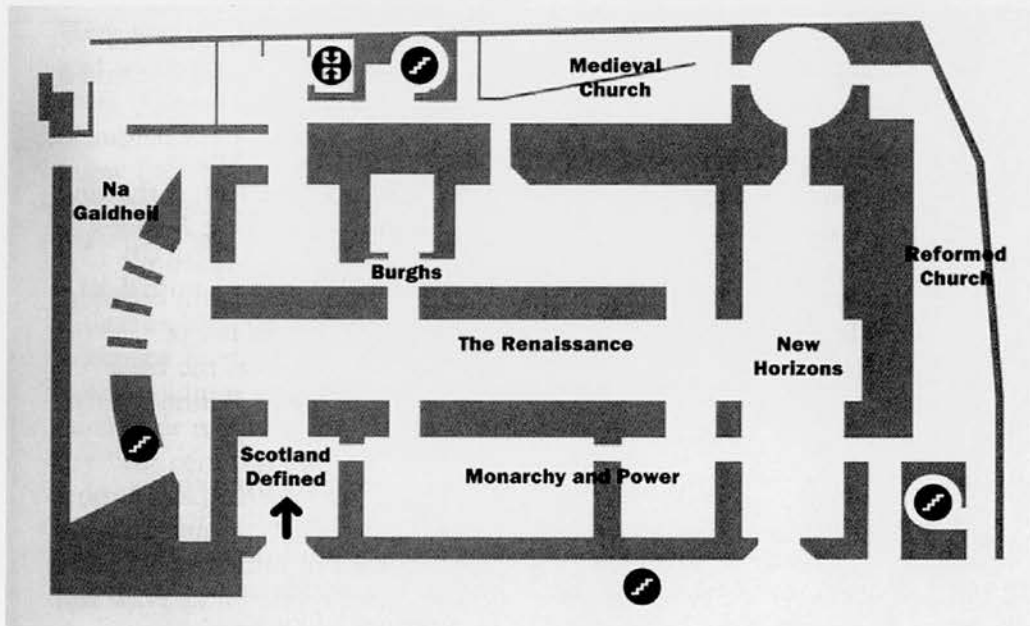
Fig. 1. Layout of the 'Kingdom of the Scots' display in the MOS.

The starting point of this exhibition is certainly debatable or contested, being officially aligned with the beginnings of written history, whilst implicitly indicating 900A.D. to be the date at which Scotland became a nation. The display's end point, however, is much more substantive, being the year in which the Union of the Scottish and English Parliaments took place. Naturally, because of their national specificity, the exhibitions at the CMC and Te Papa are not congruent with this time-span, but in each case the combination of several displays represents this era.
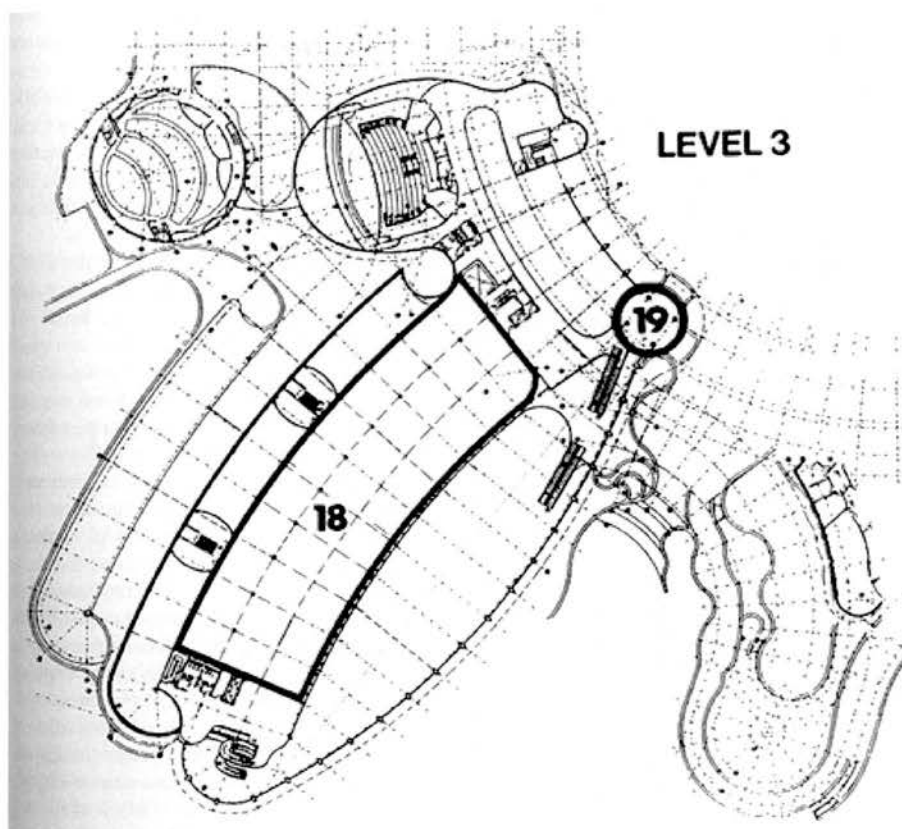
Fig. 2. Area 18 marks the 'History Hall' at the CMC.

At the CMC, this brief is in the main fulfilled by the History Hall in which, 'the historical settings present scenes from the lives of men and women who ventured into this new land from the eleventh century onwards ... Starting at the east coast, your journey will take you from the Age of the Viking to the Victorian Era.'[1] This exhibition is bolstered by the 'Indian and Inuit Art Gallery' and the 'Arts and Traditions Hall'. At Te Papa, this eight hundred year interval is less well chronicled, with the exhibitions, 'Passports', 'On the Sheep's Back', 'Golden Days', 'Exhibiting Ourselves', and 'Signs of a Nation' all commencing either in 1840 with the signing of the Treaty of Waitangi, or specifically concentrating on the last one hundred and fifty years. However, 'Mana Pasifika', 'Parade', 'Mana Whenua', and the 'Iwi' exhibition each include this period within a larger time frame.

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[1]BOURGAULT, Jérôme, and RUDDELL, Nancy. 'Guide to the History Hall', (Hull: Canadian Museum of Civilization, 1993), p. 3.
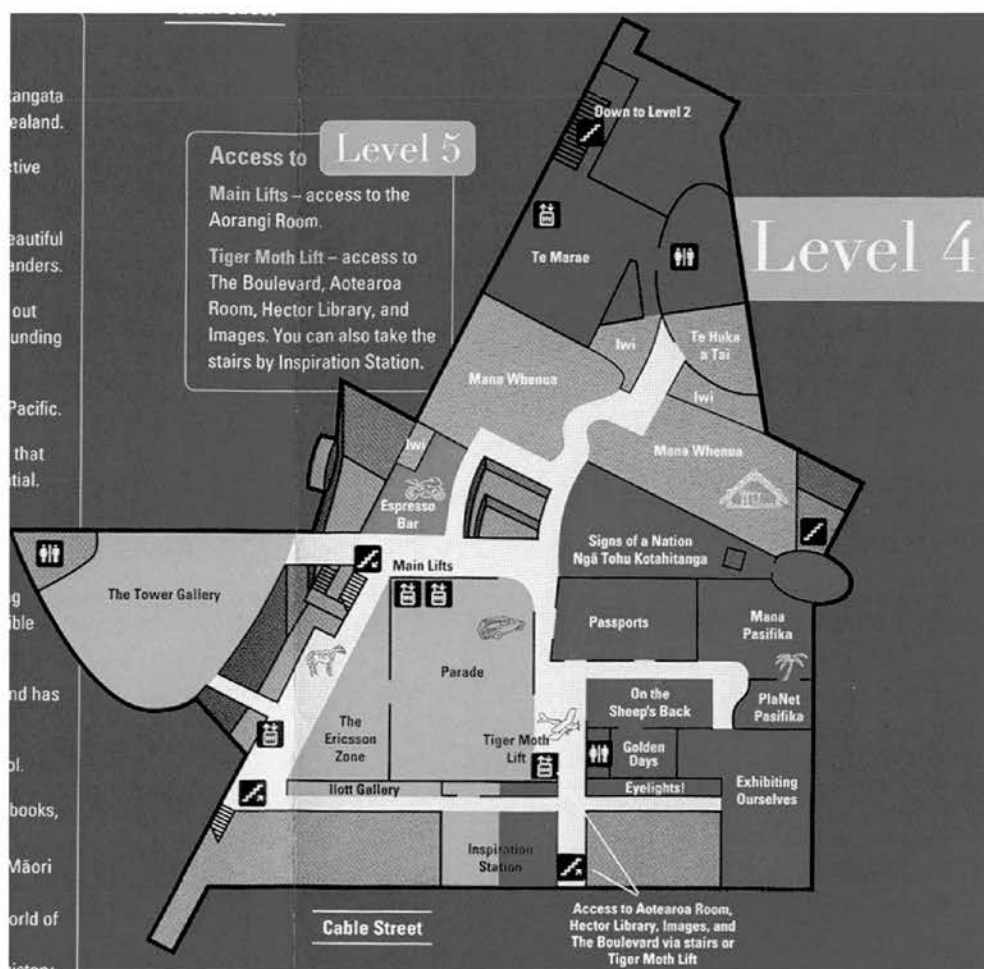
Fig. 3. Plan of Level 4 at Te Papa which houses the 'Mana Pasifika', 'Parade', 'Mana Whenua' and the 'Iwi' exhibitions.

The histories of Scotland, New Zealand, and Canada at this time, including the relative coalescence of modern nation from pre-modern ethnies, are of relevance as are the universal aspects of the pre-modern schema associated with this period. Looking first at the Scottish situation, at least five culturally and linguistically discrete ancestral groups existed within the territory now known as Scotland at the start of the Middle Ages.[2] However, '...by the eleventh to thirteenth centuries at least four of these groupings had fused together into a nation that identified itself as Scottish; long before any moves to modernisation and at a time when Scots society

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[2]McCRONE, David, KENDRICK, Stephen, and STRAW, Pat. 'The Making of Scotland. Nation, Culture and Social Change', (Edinburgh: Edinburgh University Press in conjunction with the British Sociological Association, 1989), p. 1. These ancestral groups were the Britons, Picts, Scots (Gaelic and Dalriadic), Angles, and Norsemen.

was extremely uncivil'.[3] Of course, as Watson comments, 'the creation of this kingdom, which is at last recognisably 'Scotland' to the modern observer, was not an inevitable historical process as there is nothing inevitable about the emergence of any kingdom, nor its continued existence.'[4] Rather, every inch of new soil had to be fought for either literally or diplomatically, in order to forge the kingdom of Scotland: a struggle which did not subside for many centuries to come, and which probably drew its last breath on the battlefield at Culloden. Galloway was eventually brought under Royal rule in 1236, and it was even later than that, in 1266, that lordship of the northwest Highlands and islands was seized by the king of Scots from the king of Norway.[5] Therefore, excluding only Orkney and Shetland which belonged to the Norwegian Crown until 1468 and 1469 respectively, by 1266 Scotland had grown, to all intents and purposes, into the society and landmass which still bears the name today. Indeed, the Scottish king had even given up the 'long-standing Scottish claim to the northern counties of England'.[6] In the social realm, during these centuries from 900 to 1707, the 'extremely uncivil' Scots society was based on kinship rather than kingship, with this 'tribal' ordering being replaced by feudalism only at the beginning of the eighteenth century, much later than in England and most of the rest of western Europe. Communities were warrior based, and chiefs appointed by virtue of their female parentage were overseen by clan elders. This tribal division of society and power forges a direct link with the concurrent societies in both New Zealand and Canada. However, with regard to these countries the situation is much more complex, as neither demonstrates the same congruency of pre-modern ethnie and modern nation.

Approximately one thousand years ago, Polynesians departed from either the Cook Islands or Tahiti in canoes, and having successfully negotiated the trade-winds, disembarked on the northeast coastline of the previously unpopulated set of islands now called New Zealand. This is the first chapter of the human population of the country.[7] This Maori population fulfilled the criteria of a pre-modern ethnie, defined by Smith as, '[a] named unit[s] of population with common ancestry myths and

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[3]Ibid., p. 35. The composition of this nation was to a large extent the same as that of the current Scottish nation.

[4]WATSON, Fiona. 'The Enigmatic Lion: Scotland, Kingship, and National Identity in the Wars of Independence', in BROUN, FINLAY, and LYNCH, 'Image and Identity. The Making and Re-making of Scotland through the Ages', 1998, p. 19.

[5]Ibid., pp. 18, 19.

[6]Ibid., p. 18.

[7]SINCLAIR, Keith (Ed.). The Oxford Illustrated History of New Zealand', (Auckland: Oxford University Press, 1990).

historical memories, elements of shared culture, some link with a [sic.] historic territory and some measure of solidarity, at least among their elites.'[8] The arrivals collectively named their new land 'Aotea-roa', meaning 'long daylight', and a common, although now uncertain, homeland ensured common ancestry myths, historical memories, and culture. Keith Sinclair describes the new civilisation formed in the following terms: 'Maori society was both homogenous and varied with a shared belief system, culture and language, but with strong tribal identity based on kinship',[9] similar to that of the Scottish clan system. Unlike in the case of the Scottish population, however, this ethnie was to comprise only one particular constituent of the make-up of the modern nation of New Zealand. This is because in the winter of 1642, after many undisturbed centuries, Abel Janszoon Tasman, a Dutch East India Company explorer, landed at Wharewharangi Beach on the North Island of New Zealand. This initial contact was followed by Cook's re-'discovery' of New Zealand in 1769 and his subsequent visits of 1773 and 1777, and marked the beginning of European influence on the islands. Thus, in contrast to the position in Scotland, the European or pakeha New Zealand tradition has no indigenous or native pre-modern ethnie.

A broadly analogous situation is evident when one considers Canada, although the first arrivals to the American continent made a very different journey to that of the Maori. As seen in the previous chapter, 'most anthropologists now agree that these first Canadians crossed over from Siberia during the last Ice Age, when there was a land bridge over what is now the Bering Sea'.[10] This initial influx was not an isolated occurrence however, with migrants subsequently arriving in waves. These displaced groups then developed distinct characteristics, shaped and determined as much by the new terrain they were to inhabit, as by the homes and societies they had left behind. As Saywell describes, possibly the most distinctive native Canadian identity, that of the Inuit, is an example of this: 'Although there were earlier inhabitants, the ancestors of the present-day Inuit arrived in Canada from Alaska about 1,000 years ago, and lived a semi-nomadic life fishing, hunting and gathering food, largely undisturbed by European settlers.'[11] Indeed it was five centuries before this peace was disturbed, when the American continent was re-'discovered' by

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[8] SMITH, Anthony D. 'Nations and Nationalism in a Global Era', (Cambridge: Polity Press, 1996), p. 57.
[9] Ibid., p. 24.
[10] SAYWELL, John. 'Canada. Pathways to the Present', (Toronto: Stoddart Publishing Co. Limited, 1994), p. 9.
[11] Ibid., p. 11.

Europeans, and Saywell vividly describes this rush to the 'New World': 'The cry of "LAND! LAND!" from Columbus's weary and frightened sailors in 1492 was echoed and re-echoed from the mainmasts of the ships of Cabot, Corte-Real, Verrazano, Cartier, Gilbert, Raleigh, and Hudson until most of the coastline was discovered and mapped'.[12] It was the French who first settled within the area of present day Canada, before the British conquered New France in 1759.[13] Therefore, in Canada as in New Zealand, these original and all subsequent *settler* groups, had no indigenous 'Canadian' pre-modern ethnie. In this sense, 'Canada [unlike Scotland] is not a culmination of centuries of a common history, language and culture; it is a new nation of disparate and diverse geographic and economic, cultural and linguistic communities.'[14]

This chapter relates to an era before Modernity, and despite the unique history of each nation, as charted, as well as their geographical disparity, the society of each was firmly planted in and guided by the pre-modern episteme. From our post-Enlightenment perspective, this episteme, with its emphasis on the subjective rather than the objective, appears to have been grounded in an incomprehensible irrationality which made little distinction between reality and myth, and which promulgated bizarre resemblances between disparate things. Religion was the grand-narrative of the epoch, and its mysticism and symbolism served both to initiate and propagate the episteme. By the end of the seventeenth century, however, Enlightenment concepts began to encroach, but critically, the start of the 'modern' age did not spell the end for the ideas and influence of the medieval pre-modern past. True to Adorno's theory, the new rationality was to exhibit a dialectical relationship with the mythical and subjective ideas of the former age. These returns to such a medieval outlook have been bracketed together under the term 'Romanticism', and although of a later date, this movement will be discussed within the boundaries of this chapter as it takes its inspiration from the world of ideas before Enlightenment thought: 'We could speak of the romantic mind as being

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[12]Ibid., p. 17.
[13]Ibid., p. 11. As in New Zealand, violent clashes and the introduction of European diseases served to decimate the native population. Estimated to be around half a million before the arrival of the Europeans, the census of 1881 gave the total population of 'Indians' living in Canada as only 100,000.
[14]SAYWELL, 'Canada. Pathways to the Present', p. 3.

irrational and denying the authority of intellect and reason, entangled in the intensity of feeling.'[15]

The nineteenth century was undoubtedly the age of Romanticism, a movement concisely defined by Lesnikowski as, 'the rebellion of feeling against intellect, of subjectivism and religiosity against objectivism and science, of the individual against society, of imagination and poetry against reality and prose, of nature against civilization, of myth against history, and finally of democracy against the aristocracy and the elite'.[16] Previously he charted the origins and development of this revival, and it is worth quoting this historical explanation in full:

> The growth of capitalism brought unheard-of changes within Western environments that caused profound unrest and anxiety and led to two kinds of revolutionary reaction and protest. One, the anticapitalist reaction, was of the rationalist kind, already begun in the eighteenth century with the philosophers of the enlightenment and then passing from France to the political radicals of England and later turning into Marxist philosophy. The other reaction could be described as individualistic, anarchic, liberal, and romantic. This reaction began with such philosophers as Kant and Rousseau, passed to Schopenhauer and Byron, and finally acquired the most violent of its forms in the philosophy of Nietzsche.[17]

Although this Romantic movement as characterised by Lesnikowski shared many of its criteria with Romantic Nationalism, defined in the Introduction to this thesis as, 'the mythical projection of the past from the standpoint of the present to promote a positive and legitimate image of nation', the emphasis on the individual rather than the national society as a whole was a marked divergence. These two concepts did fuse however, notably in the work of Walter Scott, who exploited every opportunity for the Romantic promotion of the Scottish nation.[18]

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[15]LESNIKOWSKI, Wojciech G. 'Rationalism and Romanticism in Architecture', (New York: McGraw-Hill Book Company, 1982), p. 149.
[16]Ibid., p. 148.
[17]Ibid., p. 147.
[18]This development hastened the beginning of the tourist industry.

Fig. 4. Portrait of Walter Scott by William Allan, housed in the Scottish National Portrait Gallery.

As Glendinning et. al. explain, 'building on the impact of Ossian, Scott's writings played a key role in the international development of Romanticism, by fuelling the growing identification of Romantic genius with nations, as well as, or instead of, individuals.'[19] Born in Edinburgh in 1771, Scott was deeply patriotic, proclaiming in 1826, 'Let us remain as nature made us, Englishmen, Irishmen and Scotchmen, with something like the impress of our several countries upon each. We would not become better subjects, or more valuable members of the common empire, if we all resembled each other like so many smooth shillings.'[20] He then alloyed this patriotism with a strongly Romantic persuasion,[21] promoting a Romantic Nationalism, which spread beyond literature into the visual arts, and architecture in particular.[22] Scott himself explored the architectural possibilities of this new approach through the building of Abbotsford, his own renowned Romantic retreat in the Borders, which will be discussed later in this chapter.

[19]GLENDINNING, Miles, MACINNES, Ranald, and MACKECHNIE, Aonghus. 'A History of Scottish Architecture from the Renaissance to the Present Day', (Edinburgh: Edinburgh University Press, 1996), p. 237.
[20]Ibid., pp. 237, 238.
[21]He called Edinburgh 'mine own romantic town', [DAICHES, David. 'Edinburgh', (London: Granada Publishing Limited, 1980), 2nd edition, p. 11].
[22]See section 2.3.

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Consequent to its elevation by Scott, Romantic Nationalism waned in the middle part of the nineteenth century before undergoing a revival towards its end, which as Curtis explains, carried over into the twentieth century:

> National Romantic ideals emerged in several parts of Europe just before the turn of the century and remained active in some cases until the 1920s. They also exerted an influence in the United States, particularly in the Midwest (the 'Prairie School') and in the southwest. They resurfaced later in the twentieth century under different guises, usually when it was a question of affirming a distinct cultural identity.[23]

This quotation draws our attention to the primary purpose of the National Romantic movement: the affirmation of a 'distinct cultural identity', and looking back to the movement's golden age in Scotland, the specific motivation behind this agenda is clear. With the Union of its Parliament to that of England in 1707, Scotland began on a new course as a 'stateless nation'. Having lost political autonomy, other spheres of national culture and society naturally became crucial vehicles for the retention of a vibrant and holistic national identity, and it was undoubtedly with this in mind that Scott wrote the Waverley novels and designed his 'Scotch' Borders seat. By the twentieth century this spur to Romantic Nationalism was still present, as in Scotland and elsewhere, 'identity did not always coincide with nationality, and cultural territory did not always fit neatly within the boundaries of the nation state'.[24] The resultant architectural reaction to this political incongruence or disenfranchisement in Scotland involved a revival in the use of regional and national building materials and techniques, in conjunction with a Romantic interpretation of the country's natural environment, as well as its pre-modern built environment.

Each of the national museums will now be examined for signs of a Romantic interpretation of the national pre-modern past, as characterised by: 'a metaphorical transformation of Medieval types; an inventive exploitation of indigenous construction techniques, and a poetic interpretation of the myths and memories of the local landscape'.[25] Indications of such local and national architectural contextualisation in the museums' spatial planning, architecture, and interior

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[23]CURTIS, William, J.R. 'Modern Architecture Since 1900', (London: Phaidon Press Limited, 1997), third edition, p. 132.
[24]Ibid., p. 132.
[25] Ibid., pp. 132, 133.

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exhibition design will be sought, with the individual significance as well as the inter-relatedness of these three aspects of museum design being well related by the MOS's architects, who aimed to achieve, 'a subliminally appropriate fit between the collection and its container, and between the container and the city.'[26] They continued, 'the intention is therefore to provide a range of galleries which are functionally appropriate and which reflect the character and nature of the collection; the container reflects the contained and, in turn, the city in which it, itself, is contained.'[27]

2.2 National Romanticism in Contextual Planning

Jean Jacques Rousseau, a founding father of the Romantic movement, was one of the first to see nature as an integral part of the Romantic vision, and he, 'exhorted others to explore it, climb mountains, challenge the Alps, follow the moods of nature, exalt human victories over nature, and search for solitude in order to discover and develop their own egos'.[28] It was 'free nature' he delighted in, as opposed to the tamed and ordered Enlightenment landscape. As Lesnikowski explains, 'he was bored with the classicism in France and said that the French "intelligent" gardens were the citadels of boredom'.[29] Rather it was the unharnessed and chaotic wilderness associated with pre-Modernity, before the rational human intervention of the Enlightenment, which had a deep appeal for him, and this predilection is clearly affiliated with both Picturesque and Sublime aesthetics: 'In his [Rousseau's] novels and stories we find descriptions of terrifying storms, torrents and precipices, and pathless forests - devastating forces of nature against which people felt helpless. His followers extended this picture to descriptions of ghosts, decaying castles, tyrants, deranged geniuses, pirates, monsters, vampires, glory, and the downfall of heroes.'[30] This connection between Rousseau's Romanticism and pre-modern nature has parallels with the Romantic inter-relationship between pre-modern ethnies and the natural world sketched in Chapter One, and these very relationships are embodied in the planning of the Museum of New Zealand Te Papa Tongarewa. In accordance

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[26]BENSON, "Benson + Forsyth", *Mac Mag*, p.4.
[27]Ibid., p.6.
[28]LESNIKOWSKI, 'Rationalism and Romanticism in Architecture', p. 148.
[29]Ibid., p. 148.
[30]Ibid.

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with age-old Maori belief and tradition, which advocates 'a strict directional orientation and alignment' with important topographical features of the immediate surrounding landscape, the non-pakeha sections of the Museum have been carefully contextualised into Wellington's dramatic natural and geological landscape. The wing containing the marae has been situated adjacent to the sea, and its main facade has been orientated to face the most open landscape feature, the sea, as well as the rising sun. This alignment has been visually strengthened by the addition of a seaward facing overhanging promontory.
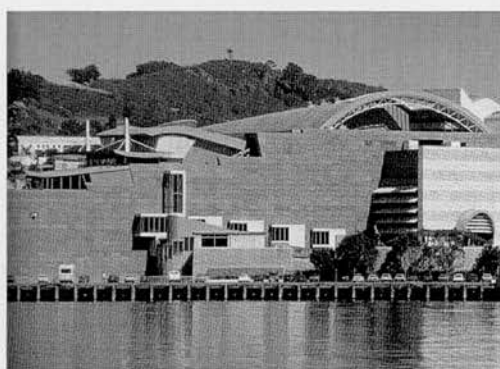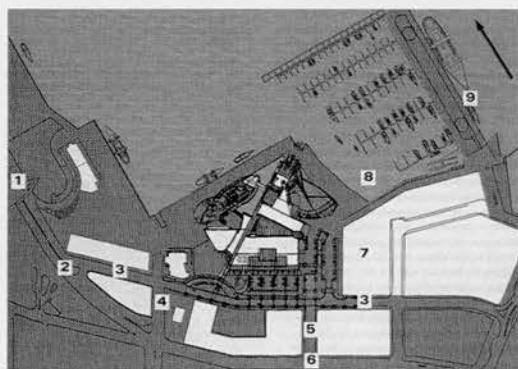
Fig. 5. Plan showing the proximity of Te Papa to Wellington harbour and the open sea.
Fig. 6. The wooded hills behind Te Papa provide 'enclosure'.

To complete the environmental directionalism, hills provide the necessary 'enclosure' behind the museum. In following an originally pre-modern Maori custom in the siting and planning of the Museum, the architects have incorporated an interpretation of New Zealand's pre-modern past into their design, with all its natural Romantic associations.

Moving away from the natural to the man made or urban environment, we find it is at the MOS where this Romantic interpretation of the nation's past is most evident in the planning of the Museum. Decisively, it is the historical and cultural layering or concatenation of the site which has proved to be the richest source of design inspiration.

The MOS occupies a complex and pivotal city centre site, which crucially marks a confluence between the medieval Old Town of Edinburgh and a mid-nineteenth century urban clearance site, which continued the superimposed rationality of the earlier and adjacent New Town. 'They [Benson and Forsyth] perceived the

competition site as a hinge between the rationalist, orthogonal, and horizontally proportioned buildings of Chambers Street and romantic, crumbly, massive pre-Enlightenment Edinburgh, on the edge of the slope leading down to the urban chaos of the Grassmarket.'[31] No fewer than six approach roads intersect at the western edge of the site.
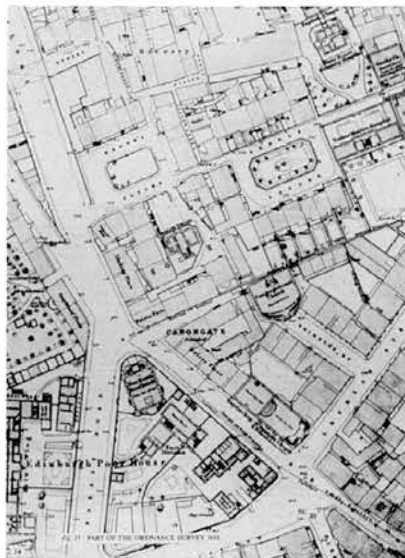
Fig. 7. Ordnance Survey map of this crossroads from 1877.
Fig. 8. View of the Royal Mile and the site of the current Museum, drawn by James Gordon of Rothiemay, 1647.

Two of these are post-Enlightenment in origin, whilst the other four: Bristo Port; Bristo Street; Forrest Road, and Candlemaker Row, all follow the course of the original medieval fieldroads, the routes of which are historically significant.

On 9 September, 1513, the joint forces of Scotland and France were defeated by the English at Flodden, with the loss of life of James IV and allegedly 12,000 Scots. Being only four miles from the border on the English side of the River Tweed, this event sent shock waves to Edinburgh, and instigated the building of the Flodden Wall.

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[31]McKEAN, Charles. 'The Making of the Museum of Scotland. Draft Text', p. 5.4.

Fig. 9. The Flodden Wall at the southeast corner of the city, where it descends to the Cowgate.

Fig. 10. Map showing the route of the Flodden Wall.

This defensive structure, which followed the route of a previous line of defence erected in 1450 in the reign of James II, ran along the southern boundary of the present MOS building, on what is now Bristo Port. A main gate in this wall providing a thoroughfare into the city was positioned at the western corner of the current site, and this past has seemingly not gone unreferenced by the architects: 'This crossroads was the site of the Bristo Port, the main southern gate of the city, and the new building itself is defined to the south by the line of the old city wall in which the gate once stood'.[32]

Fig. 11. Southern facade of the MOS, which follows the course of the old Flodden Wall.

However, being the boundary of a small site, this planning approach is predominantly pragmatic, with an additional, fortuitous symbolic relevance.[33] In a

[32]MACMILLAN, in BENSON and FORSYTH, 'Museum of Scotland', p. 110.

[33]At this time, Bristo Street formed the main southern approach road to this gate, whilst Candlemaker Row was the only connection between the gate and the High Street.

further attempt at contextualisation, the Museum's corner tower, which stands near to the previous location of the gate, echoes its role as a boundary or threshold.
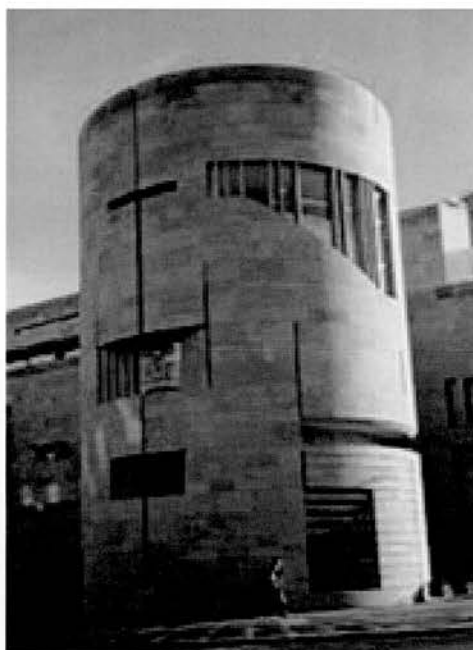
Fig. 12. Entry tower of the MOS.

As Duncan Macmillan explains, 'it is like a memory for the ancient city gate, for it is through it that you enter the building.'[34] This derivative planning clearly corresponds to one of the previously mentioned characteristics of national architectural Romanticism: 'a metaphorical transformation of Medieval types'. In a similar if more general correspondence, the irregularly graduated curve of the Museum's stone clad curtain wall, which turns the corner behind the round tower, reflects the erratically winding medieval streets.

[34] MACMILLAN, in Benson and Forsyth, 'Museum of Scotland', p. 110

Fig. 13.   Sinuous curtain wall at the MOS.
Fig. 14.   Candlemaker Row curving down to the Grassmarket.

Other secondary alignments include, 'the angle between the tower and the drum, [which] apart from satisfying the architects' fondness for diminishing geometries, maintains the important vista from Middle Meadow Walk to the crown of St Giles Kirk.'[35] The significance of this 'view-through' however, is neither apparent nor explained.

The architectural references generated from Edinburgh's pre-modern past described thus far are certainly superficial in relation to the planning of the Museum as a whole. In contrast to this, the next spatial device to be explored, 'a poetic interpretation of the myths and memories of the local landscape', was critical to the generation of the Museum's two dimensional plan. To explain this scheme, it is necessary to return to the seventeenth century, a time of religious turmoil.

A covenant, an idea which first arose in the Old Testament, is 'the concept of a special contract between God and the people',[36] and in Scotland the notion that such a divine connection existed was supported by both Presbyterians and Calvinists at

[35]McKEAN, 'The Making of the Museum of Scotland. Draft Text', 1.2.
[36]KEAY, John, and KEAY, Julia, (Eds.). 'Collins Encyclopaedia of Scotland', (London: Harper Collins, 1994), p. 189.

the end of the sixteenth century. However, this conception was rudely shattered by Charles I, when by-passing the General Assembly, he autocratically introduced the Book of Common Prayer. This document was produced by William Laud, Archbishop of Canterbury, in St Giles' Cathedral on 23 July, 1637, and it was at this point that Scottish '...objections to anglicising the kingdom and the church came together',[37] causing riots in Edinburgh and resulting in the National Covenant of 1638. The Covenant was drawn up by two of the most distinguished Scots lawyers of the day, Thomas Hope and Archibald Johnston of Warriston, and began 'by citing the various Scottish Acts relative to religion drawn up since 1581'.[38] A part of this, the 'Negative Confession', repudiated 'the usurped authorities of that Romane Antichrist upon the scriptures of God, upon the kyrk, the civill magistrate and conscience of man'.[39] The Covenant continued to list the Acts of Parliament which confirmed this stance. In essence, the National Covenant was, 'a public petition which presumed a direct Scottish relationship with God, without 'all kinds of Papistry".[40] The crucial point to make here, however, is that although the Covenant was signed in churches across Scotland and eventually represented approximately 300,000 signatories, it was first and most famously signed at Greyfriars churchyard in Edinburgh.

Fig. 15. Aerial view of Greyfriars Kirk and surrounding churchyard.

Fig. 16. Main, eastern facade of Greyfriars Kirk.

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[37]Ibid.

[38]DAICHES, 'Edinburgh', p. 56.

[39]HOPE, Thomas, and JOHNSTON, Archibald. 'The National Covenant', 1638, in DAICHES, 'Edinburgh', p. 57.

[40]KEAY, (Eds.), 'Collins Encyclopaedia of Scotland', p. 189.

This building, dating from 1620, is situated just off Forest Road and is visible across George IV Bridge from the Lindsay Place facade of the Museum.

Fig. 17.   Glimpse of Greyfriars Kirk through a small window in the MOS.
Fig. 18.   View of Greyfriars Kirk from the Museum's restaurant balcony.

As David Daiches has construed the scene: 'The document was ready by 28 February, and on that day the signing of it by masses of people began in Greyfriars Church in Edinburgh...amid scenes of remarkable enthusiasm'.[41]

Did the architects respond to or utilise this rich cache of national, historical, and spiritual memory, and if so, how and why? At the initial planning stage of the Museum, the architects encountered two particular difficulties. Practically, they faced the necessity of resolving the opposing geometries and scales of pre-Modernity and Modernity, which converge on the site of the Museum, and the knotting of these two separate threads was indeed an important conflict or dialectic to be resolved within the design. Even more critical, however, was the search for symbolic meaning or theoretical validation with which to unite and embolden their design strategy. Thus, the architects were desperately searching for a design generator which would resolve this physical disjuncture, impose the necessary structure and order and, most importantly, endow the Museum building with the resonance and meaning befitting of such a seminal national building. The National Covenant, and more specifically Greyfriars Kirk, provided this linchpin.

This significance of Greyfriars church and hence the signing of the Covenant manifests itself in the MOS building, whilst at the same time solving this difficult problem of juxtaposing scales and orders, through the manipulation of principal

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[41]DAICHES, 'Edinburgh', p. 57.

design axes. The main visual and spatial axis of the Royal Museum is unequivocally the lengthways section through the 'nave' of its main hall, parallel to Chambers Street. In order to ensure continuity with this parent building, the architects identified the node at the intersection of this line of symmetry with the threshold to the MOS, as key. [42] The pivotal point of the new building, the apex of the Hawthornden Court, was then formed by continuing the axis from this point, to a point at the centre of the gate leading into Greyfriars Kirk. Thus, the principal line of orientation is generated from an imaginary extension or link to Greyfriars Church.
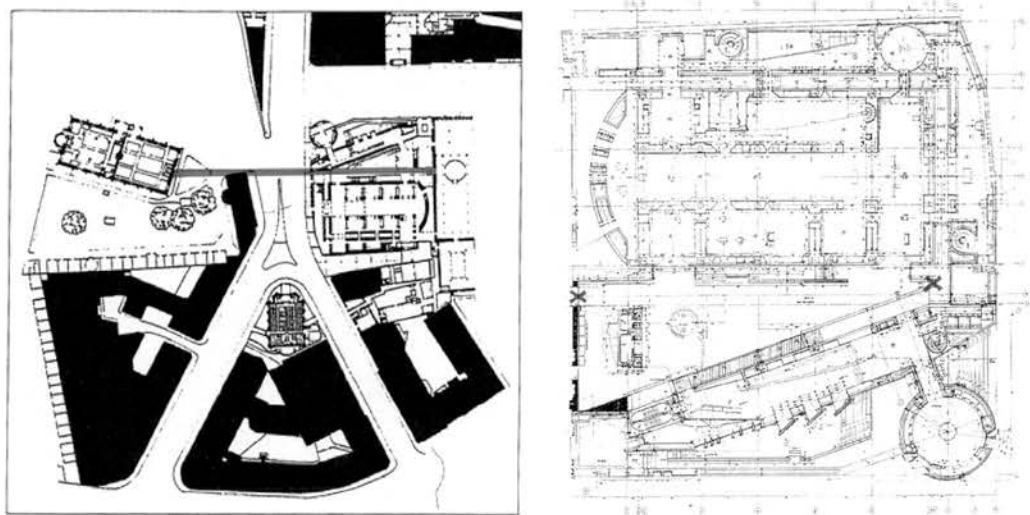
Fig. 19. Plan view of the Museum and locale showing principal axis of design.
Fig. 20. Ground floor plan view of Museum showing key design nodes.

The chief design generator was the decision to take an unobstructed line from the centre of the Royal Museum's main hall and extend it to the mid-point of the entrance elevation of Greyfriars Kirk. Although not entirely precise in its execution, this symbolic intention with its latent meaning is clear. What is less satisfactorily explained by the design team however, is how the remaining side or hypotenuse of the MOS's orientation court triangular plan has been generated,

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[42] This axis creates symmetry within the Hall, although not the building as a whole.

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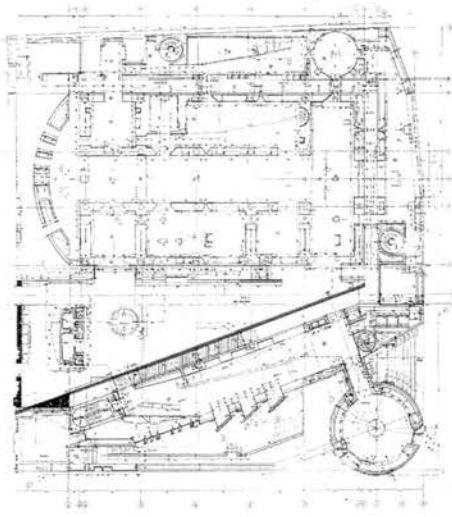
Fig. 21. Plan of the MOS's ground floor showing the randomly generated hypotenuse of the triangular orientation court.
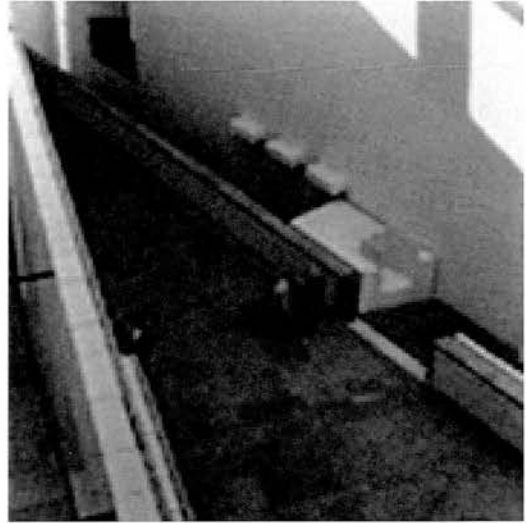
Fig. 22. View of the ground floor triangular orientation court from first floor level.

and upon closer inspection it appears that this axis is devoid of similar meaning, being in fact randomly or abstractly constructed:

> As a junior partner to this axis, they developed a secondary axis from a new proposed ramp within the RSM's entrance colonnade which reached the new Museum through a door relocated two bays northwards through the west wing wall. The triangular form of the Hawthornden Court is the consequence of these two, widely spaced entrances becoming focused upon a narrow point.[43]

Returning to the principal alignment, in this context of public, national architecture, merely employing such potent symbolism is not sufficient in itself as without architectural 'signposting' it is invisible. It was vital therefore that this connection be communicated by the form of the building and two devices, with varying degrees of apparency, were used to do this. Firstly, the opening between the old museum and the new was designed to be of identical width to the entrance gate into Greyfriars churchyard.

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[43] McKEAN, 'The Making of the Museum of Scotland. Draft Text', p. 5.7.

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Fig. 23. Gateway into Greyfriars churchyard.

This connection is obscure in the extreme and visually indecipherable. Second, and more discernible, is the stone-clad projection at first floor level on the Lindsay Place facade, which juts out towards the entrance gates and the church building behind.
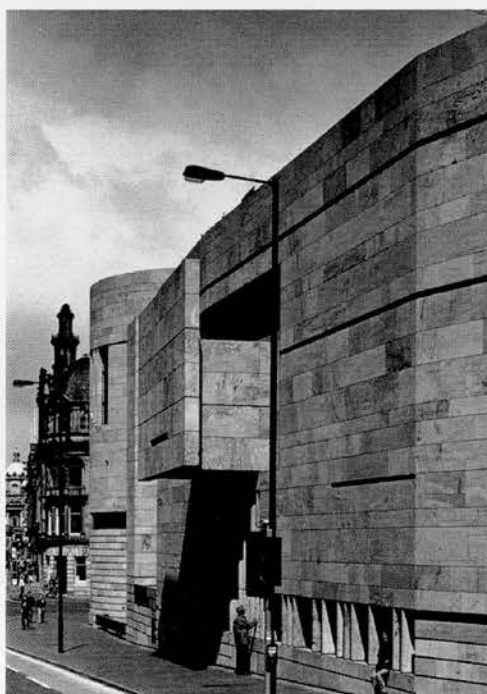
Fig. 24. Protruding rectangular slab, which signals the dialogue with Greyfriars Kirk.

In the words of Benson, 'a large penetration through the outer wall at the focus of this space, addresses the entrance to Greyfriars, opposite.'[44] This overlaid rectangle is thus intended to signpost the communication between church and museum, and is almost exactly three times the width of the opening between the old and new museums.

Through this device itself: 'a poetic interpretation of the myths and memories of the local landscape', and the associated architectural signposts to it, the Museum highlights and privileges the history of the National Covenant of 1638. This much seems indisputable. However, more can be inferred. Claiming as it did a special link between God and the people of Scotland, the Covenant not only defined and reinforced the idea of Scotland the nation, but also honoured and empowered the Scottish people. In using the most tangible remnant of the Covenant, Greyfriars Kirk, as the main planning generator of the new Museum building, it appears that by association, the Museum also sought to promote and privilege the Scottish nation and the Scottish people.

A National Romantic interpretation of Scotland's pre-modern past is certainly in evidence in the MOS's formal planning and the resonance to be derived from this tradition was definitely the motivation behind this. The plan of the MOS is deeply contextual, as it forges links with and echoes both local and wider pre-Enlightenment buildings, and hence events. Such site specificity was a requirement, albeit vague, in the building brief: 'The capital City of Edinburgh has strong and distinctive architectural qualities which the design of the new building should respect and advance',[45] and Benson + Forsyth's approach to this aspect of the project may have contributed to their ultimate success in the design competition.[46]

2.3   National Romanticism in Architectural Form

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[44]BENSON, "Benson + Forsyth", *Mac Mag*, 1991, p. 6.

[45]Museum of Scotland, 'Architectural Competition Brief', p. 3.

[46]In stark contrast to this 'framed' architecture, Cardinal's design for the CMC is predominantly autonomous, making few concessions to its immediate or wider national environment. However, those that are made correspond to Canada's more recent, modern history and will therefore be considered in Chapter Three.

'If Architecture has national peculiarities impressed upon it, then it must be history - the world's history written in stone.'

C.R. Mackintosh, 1892.

Just as Te Papa connects with a Romantic, pre-modern vision of nature at a two-dimensional level, so does the CMC in the three dimensions of its sculptural form. The architectural evocation of the Canadian Shield, the glaciers, and the great plains described in Chapter One is clearly within the tradition of Rousseau's Romanticism and is also inherently national in focus. However, as in the previous discussion on planning, it is the MOS that naturally dominates this exploration of the ways in which the museums' architectural forms display Romantic images of their nations' pre-Enlightenment histories. This is because it was in Scotland rather than in Canada or New Zealand, that the greatest surge in national Romanticism took place, and in order to explore manifestations of this in the MOS's architecture it is necessary to consider the origins and development of the Scottish movement as a whole.

National Romanticism draws its strength from the appropriation of pre-modern ideas and images, and the Scottish Romantic movement is characterised by the degree of distortion, manipulation, and even invention to which these images and ideas have been subject. This effect is most evident in the field of Scottish literature, with Ossian the ultimate national literary fabrication.

Between 1760 and 1763, James Macpherson published three important texts: 'Fragments of Ancient Poetry, collected in the Highlands of Scotland, and translated from the Gaelic or Erse language' (1760); 'Fingal, an Ancient Epic Poem in Six Books' (1761); and 'Temora, an Ancient Epic Poem in Eight Books' (1763), claiming them to be translations of the works of Ossian, an ancient Caledonian bard.[47] The volumes were immensely popular, being translated into at least twelve different languages, and were circulated throughout Europe. Although falling within the Enlightenment classical epic tradition, the books also promoted and glamorised 'the image of the Highlands as both the desolate refuge of a primitive people and an example, *par excellence*, of a sublime landscape',[48] thereby igniting the Romanticism of the Scottish Highlands and Jacobitism in the popular imagination.

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[47]DONNACHIE, Ian, and WHATLEY, Christopher, (Eds.). 'The Manufacture of Scottish History', (Edinburgh: Polygon Press, 1992), p. 151.
[48]Ibid.

Initially sceptics were few, but over time Macpherson's texts were increasingly doubted and finally proved to be fake. However, this revelation was of little importance, as by the time the deceit was uncovered, the myth of Ossian had contributed to the popular fascination and enchantment with the Highlands. As McKean relates:

> ...the *Ossian* controversy had transformed the idea of ancient Scotland from a land of inaccessible savages ill disposed to civilisation to a nation of Dark Age poetic heroes, with a primitive culture haunting heather-clad fastnesses. Travellers ventured north to emote at frightful waterfalls; and suitably ghastly grottoes, moss houses, hermitages, ancient springs, vista fillers and doocots were erected to satisfy the yearning.[49]

This effect was then visually reinforced most notably, although not solely, in the late eighteenth century Ossianic paintings of Alexander Runciman.
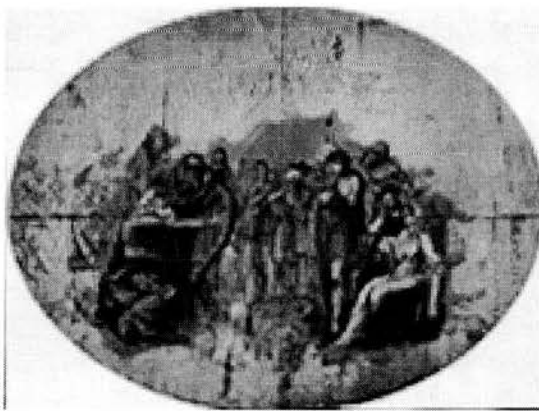
Fig. 25. 'The blind Ossian singing and accompanying himself on the harp' by Alexander Runciman, 1772. Pen and ink wash.

Fig. 26. Ossian's Hall at Penicuik House, near Edinburgh, decorated with the works of Runciman.

Although less extreme, another prime example of the deformation of Romantic Scottish culture is Kailyardism, a popular literary style which flourished from about 1880 until 1914. It focused on Scottish small town life and its colourful characters, and was kitsch in its couthy charm. Modern critics have almost unanimously labelled it a 'hegemonic discourse'.[50] Tom Nairn refers to it as 'sub-cultural Scotchery',[51] and Colin McArthur expands on this saying, '...Scottish artists and intellectuals, where they did not leave Scotland and function solely within the

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[49]McKEAN, Charles, 'The Scottishness of Scottish Architecture', in SCOTT, Paul H., 'Scotland: A Concise Cultural History', (Edinburgh & London: Mainstream Publishing, 1993), p. 10.
[50]McARTHUR, C., "Scotch Reels and After", *Cencrastus*, 11, 1983, p. 2.
[51]McCRONE, David. 'Scotland the Brand: The Making of Scottish Heritage', (Edinburgh: Edinburgh University Press, 1995), p. 62.

discourses of other cultures, produced works in or about Scotland which were deformed and 'pathological".[52]

Another myth, that of tartan, has been well expounded. David McCrone writes, 'tartan was 'made' for the modern world in the relatively short time between the late eighteenth century and mid nineteenth century'.[53] Various events promoted its development, such as the overturning in 1782 of the Proscription Act, which had forbidden the wearing of 'Highland garb', and the encouragement of Walter Scott. Indeed, according to McCrone, 'by the 1820s, the commercial production of tartan was in full swing under the auspices of William Wilson of Bannockburn, who developed a list of tartans in a fairly opportunistic way by reclassifying designs to fit clan names',[54] and this imaginative process was continued in the 1840s by the brothers John and Charles Allen, with their famous work 'Vestiarium Scoticum'. Later, the Royal endorsements of George IV, who wore tartan regalia on his 1822 visit to Edinburgh, and Queen Victoria, whose husband, Albert, designed 'Balmoral' tartan for their Highland retreat, put the seal of approval on tartan.

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[52]McArthur, "Scotch Reels and After", *Cencrastus*, p. 2.
[53]McCRONE, 'Scotland the Brand', p. 51.
[54]Ibid., p. 51.

Fig. 27. Costume in hard tartan probably made for George IV's visit to Scotland in 1822.

Fine art colluded in this nationally Romantic agenda, as in J.M.W. Turner's 'March of the Highlanders', which in the words of Withers, 'purported to show the King's procession from Leith, [and which] is a wild flight of artistic imagination much removed from the actual passage of the King to Edinburgh Castle yet quite in keeping with prevalent Romanticized notions of display and Highland grandeur'.[55]

[55]WITHERS, Charles, 'The Historical Creation of the Scottish Highlands', in DONNACHIE and WHATLEY, The Manufacture of Scottish History', p. 152.

Fig. 28. J.M.W. Turner's 'Edinburgh Castle. March of the Highlanders' from 1836. Watercolour on paper.

From these relatively recent origins, the tartan industry has developed exponentially to overwhelm Scottish tourism and heritage. Many writers have criticised this 'fake' iconography for stifling the maturation of 'high' Scottish culture. Tom Nairn described this as the 'cultural sub-nationalism of tartanry',[56] with Beveridge and Turnbull echoing his sentiment: 'Vulgar tartanry became the central popular-cultural reality.'[57] McCrone suggests that, 'sending the whole thing up seems to be the only appropriate gesture: the Tartan Monster can be tamed by laughing at it'.[58]

Like literature and fashion, architecture did not escape the consequences of Romantic thought, and the freeing of landscape architecture from formal constraints was the first manifestation of this in Scotland. This occurred in the early eighteenth century, long before the era of Ossian, and often involved the juxtaposition of sublime landscape and old remains, with formal elements.[59] By the middle of the century, architecture itself had begun to show the effects of this Romantic impulse, most notably in attempts to build new houses in the style of castles. Prime examples of this are the two designs by Dugal Campbell and Roger Morris respectively, for Archibald the 3rd Duke of Argyll's new seat in Inveraray, begun in 1746. Between

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[56]McCRONE, 'Scotland the Brand', p. 54.
[57]BEVERIDGE, Craig, and TURNBULL, Ronald. 'The Eclipse of Scottish Culture', (Edinburgh: Polygon Press, 1989), p. 57.
[58]McCRONE, 'Scotland the Brand', p. 52.
[59]GLENDINNING, MACINNES, and MACKECHNIE, 'A History of Scottish Architecture', pp. 129, 130.

them they included crowstepping, 'a polygonal fort-like outer wall',[60] bastions, and a dry moat, in an attempt to evoke Argyll's ancestral roots.

Fig. 29. Inveraray Castle: Romantically castellated seat of the 3rd Duke of Argyll, built by Roger Morris.

In the 1790s, Clerk of Eldin characterised this genre in the following terms: 'Although not built for defence, such buildings still adhered to the principal decorations of the old castle; they were still flanked by towers and surmounted with turrets and battlements ....'[61] This castellated style was only assimilated slowly however, with John, and probably James Adam's Douglas Castle, of 1757, being the link to the architecture of Robert Adam. By the mid 1770s, Robert Adam was designing outwardly Romantic and Picturesque castles in an assertively Scottish style, made possible by the country's recent economic revival.

Fig. 30. 'The Whimsical but Magnificent Castle of Colane': painted by Alexander Nasmyth for the 12th Earl of Cassillis in 1812, romanticising Adam's creation.

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[60]Ibid.

[61]FLEMING, J., '"A Retrospective View" by John Clerk of Eldin', in SUMMERSON J., (Ed.), *Concerning Architecture*, 1968.

The plans and interiors of these designs remained rigidly Classical however, and it was only gradually that the 'Romantic reliance on the irrational' burgeoned, 'this complex new world-outlook [becoming] far more prominent in the late eighteenth century era of Ossian'.[62] In this latter 'Ossianic' part of the eighteenth century, the principal derivational type, the castle, was joined by the cottage orné, and the later Scott-inspired house, Abbotsford, is a clear amalgamation of these models. This design conception came to fruition over many years and began with the brief to rebuild and extend an existing farmhouse. In 1811, Scott employed Stark to assist with the design process, and the initial aim was to achieve a picturesque and rural abode, or as Scott himself described it, a 'whimsical, gay, odd cabin that we had chalked out'.[63] After Stark's death, Scott commissioned the English architect, William Atkinson, and together they modified and matured the vision into that of, 'an old-fashioned Scotch residence, full of rusty iron coats and jingling jackets ... in the old fashioned Scotch style which delighted in notch'd gable ends and all manner of bartizans'.[64] Building finally began in 1817 following a broadly Jacobean theme with Scottish Renaissance detailing, but by the second building phase between 1821 and 1823, Baronial features began to take over.
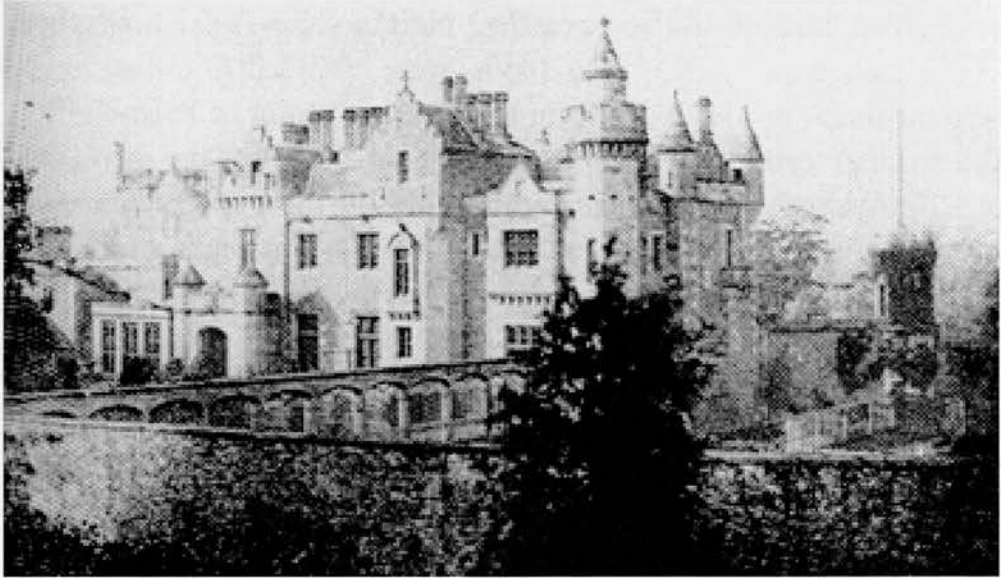
Fig. 31. Abbotsford (W. Atkinson with W. Scott, 1817-23), external view in the 1840s.

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[62]GLENDINNING, MACINNES, and MACKECHNIE, 'A History of Scottish Architecture', p. 131.
[63]National Library of Scotland, *Scottish Architects at Home and Abroad*, 1978, p. 55, in GLENDINING, MACINNES, and MACKECHNIE, 'A History of Scottish Architecture', p. 238.
[64]WAINWRIGHT, C., "Walter Scott and the Furnishing of Abbotsford", *The Connoisseur*, 1977, p. 14, in GLENDINNING, MACINNES, and MACKECHNIE, 'A History of Scottish Architecture', p. 238.

As well as being overtly national in style, Scott wished his interiors to look old, and achieved this both by incorporating antiques and ageing new surfaces to suggest a patina of use over time.[65]

Fig. 32. Abbotsford, Entrance Hall, c. 1885, photograph by Alexander Inglis.

Contemporary castellated buildings were thus inspired by Ossianic Romanticism, the Picturesque landscape movement of Claude and Poussin, and most notably Scottish Renaissance design which espoused asymmetry.

As we move into the nineteenth century, castellated, medieval, and Northern Renaissance styles were increasingly used in Scotland in the creation of an

[65]This is reminiscent of the continuity myths and extension of national lineage discussed in Chapter One. More generally, it is undeniable that, 'the influence of Abbotsford was enormous - and not only within architecture. Where Scott's works had promoted Scotland as an international tourist attraction, Abbotsford now itself became part of that tourist circuit, alongside Melrose ... By the mid 1850s, the house received over 4,000 visitors a year, and by the mid 1870s over 2,000 Americans alone were visiting annually.' [Ibid.] Scott's influence on architecture did not terminate at Abbotsford however, as 'the most spectacular shrine of the early nineteenth-century movement of national romanticism: the Sir Walter Scott Monument in Edinburgh', [Ibid.], was designed by George Meikle Kemp and erected in Edinburgh between 1840 and 1846, in recognition of his many achievements.

assertively Picturesque and nationally Romantic image.[66] Such attempts were significantly advanced by archaeological research into the nation's architecture, for example Kemp's study of ecclesiastical buildings, and Billings' more general work, 'The Baronial and Ecclesiastical Antiquities of Scotland', which led '... to the eventual emergence of the 'Scotch Baronial' style'.[67] A particularly influential adoption of this style occurred with the 1853-55 remodelling of Queen Victoria's Highland residence of Balmoral, which in many ways exemplified, '...the characteristic Baronial project of a series of additions to an existing house....'[68]
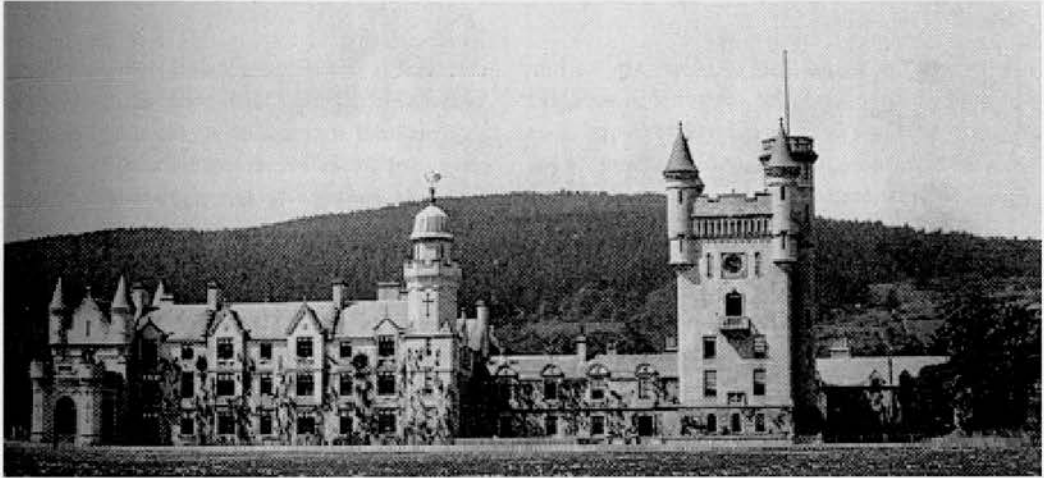
Fig. 33. Balmoral Castle (as rebuilt by W. Smith and Prince Albert), early twentieth-century view.

Concurrent developments in institutional buildings included David Rhind's Daniel Stewart's Hospital and Playfair's Donaldson's Hospital, both in Edinburgh, and the work of Bryce, both domestic and institutional, was definitive of the style. By the middle of the century Scottish Baronial reached its climax, and such '... attempts to ally with, and exploit the new Ossianic images of Scotland had become steadily more closely linked with architectural images of castellated lineage'.[69]

Echoes of this National Romantic architectonic tradition have survived right up to the present day, with evidence of such aesthetic praxis in the forms and massing of the MOS. Allusions to the historic architecture of fortification, or 'architectural images of castellated lineage', abound, but the motivation behind the inclusion of such features is less clear.

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[66]GLENDINNING, MACINNES, and MACKECHNIE, 'A History of Scottish Architecture', p. 226.
[67]Ibid.
[68]Ibid., p. 276.
[69]Ibid.

The most striking and overtly defensive element of the Museum is the promontory tower, which turns the corner between Chambers Street and Lindsay Place.
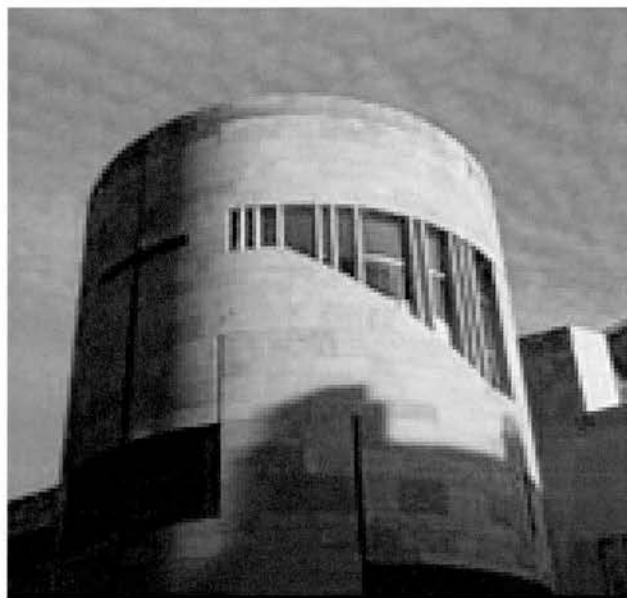
Fig. 34. Circularly planned entrance tower of the MOS.

Many possible references to circularly planned, fortified Scottish architecture could be invoked by this tower, some even dating back to prehistoric times.[70] Later Iron Age duns and forts had roughly circular or elliptical plans, but the lower levels of the walls of these distances them somewhat from the 'tower' form. Only the brochs of the Northern Isles, particularly Mousa Broch in Shetland,[71] have walls high enough to be redolent of the Museum's tower, as shown in Chapter One. Moving forward to the Dark Ages, another striking allusion is discovered between the Museum's round tower and the round towers at both Brechin and Abernethy,[72] '... the former a tenth-century construction, and the upper part of the latter a twelfth-century reconstruction'.[73]

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[70]The use of timber as a primary building material in many areas in prehistoric times means that evidence of buildings with round plans is very scant. However, the existence of hut circles, aisled round houses, wheelhouses, and crannogs - all with circular or elliptical plans - is known, and often confirmed by later manifestations in stone.

[71]HAY, George. 'Architecture of Scotland', (Edinburgh: Oriel Press, 1969), pp. 19, 20.

[72] Abernethy was the former Pictish capital.

[73]Ibid. p. 24.
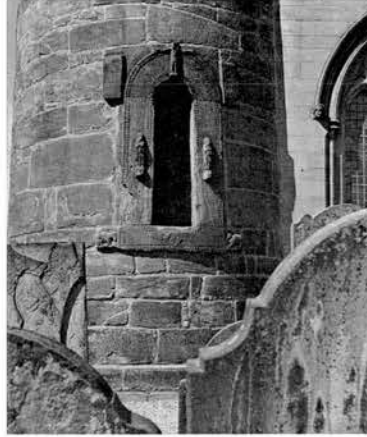
Fig. 35. Round tower at Brechin Cathedral.

A similar, although this time ecclesiastical version of this type, is also described by George Hay. He writes, '... in Orkney also is the roofless church of Egilsay, comprising chancel, nave and round tower, which could have been the scene of St. Magnus' martyrdom in 1116'.[74] Significantly however, this form of round tower, although appearing occasionally in Scotland, actually originated in Ireland and can certainly be found there in much greater proliferation, such as at Donaghmore and Glendalough.

Plan at top windows

Section looking east

10 5 0   10   20   30 feet
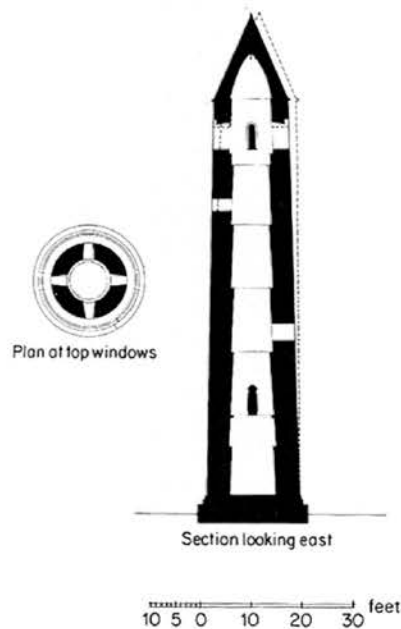
Fig. 36. Plan and section of the Round Tower at Timahoe, Co. Leix in Ireland.

[74]Ibid., p. 25.

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Therefore, if the architects did intend to create a resonant association between their tower and the defensive round towers of the Dark and Middle Ages, the allusion, although certainly Romantic, was not peculiarly nor even particularly Scottish. Being of Irish origin and predominantly Irish use, such an association is somewhat disconsonant, and is certainly not symbolic of Scottish architectural development.[75]

It is from the architects, however, that we discover the actual intended reference and hence meaning of their round tower, as elucidated by Gordon Benson in an article of 1991: 'Formally, the cylinder echoes the half-moon battery of the castle, which its linear opening frames, and completes one reading of the Fowke building from Chambers Street.'[76] On initial consideration, this answer seems a neat one. Through unavoidable proximity and manipulated alignment, the Museum's tower is linked to the Half Moon Bastion of Edinburgh Castle, and as such is symbolically linked to an extremely potent sign of Scottish power, resilience, and pride. The figures below demonstrate this spatial relationship between the Museum's tower and the half moon battery of Edinburgh Castle.
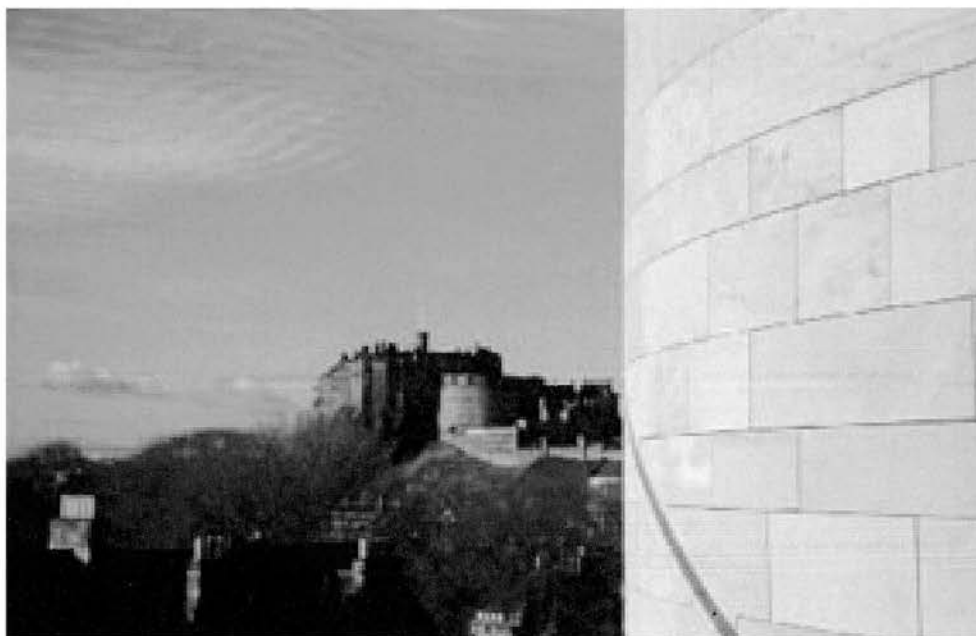
Fig. 37. Spatial proximity between the Castle and the MOS's tower.

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[75]See the discussion of tower houses later in this chapter.
[76]BENSON, Gordon, "Benson + Forsyth", *Mac Mag*, 1991, p. 6.

Fig. 38. Plan view showing the alignment between the Castle's Battery and the Museum's entrance tower.

In addition to its particular source, Edinburgh Castle, this connection also associates the Museum's tower with the architectural heritage of National Romanticism more widely, thus placing it firmly within the evolution of that tradition.

However, there is one basic problem with all of this: the tower looks nothing like the Castle's Half Moon Bastion.

Fig. 39. Edinburgh Castle's Half Moon Bastion.
Fig. 40. MOS's cylindrical entrance tower.

The development of the Half Moon Battery was a direct consequence of the invention of gunpowder, and its characteristics reflect this. It has low, thick walls to resist blasts, and also incorporates gun platforms, rather than arrow slits, into its

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form. As Hay writes, 'High curtains and crenellated towers gave way to lower thicker walls, gun platforms and embrasures as at Ravenscraig and the later Half Moon Bastion at Edinburgh.'[77] In stark contrast the Museum's tower is tall, rising to a height of three full storeys above street level, and its walls appear relatively narrow and delicate in comparison to the chunky, heavily massed walls of the Castle's bastion. Neither is the inclined face of the Castle's battery wall imitated, with the architects choosing instead a vertical tower structure. Additionally, Benson and Forsyth's tower design details several narrow vertical openings, which whether consciously or not, are strongly evocative of the very arrow slits which were no longer necessary in the Castle's Half Moon Battery. Although eschewing this specific connection between tower and bastion, this detail reinforces the already strong dialogue between Museum and castle forms in general, the narrow, vertical openings in the tower being strongly redolent of arrow slits that were an essential feature of defensive castles of the Middle Ages. Figures 41 and 42 overleaf illustrate this allusion with specific reference to Spynie Palace, which is 'regarded as "one of the finest 15th century castles"' in Scotland. [78]
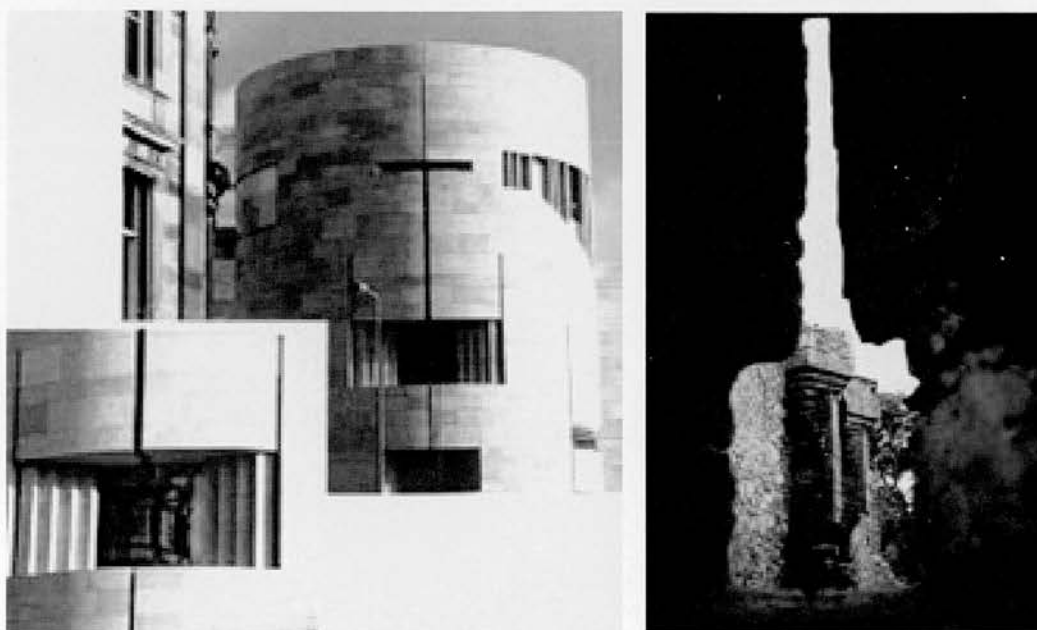
Fig. 41. 'Arrow-slit' openings in Museum tower.
Fig. 42. View through a fifteenth century arrow-slit at Spynie Palace, nr. Elgin.

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[77]HAY, 'Architecture of Scotland', p. 49.
[78]KEAY, (Eds.), 'Collins Encyclopaedia of Scotland', p. 893.

In all these ways, the Museum's tower constitutes a very strange 'echo' of the Castle's bastion, with this discrepancy being no more apparent than in the tower's plan shape, which is a perfect circle, entirely at odds with the 'half-moon' horizontal section of the Castle bastion.

What is the conclusion to be drawn from this discrepancy between the reality of the building's design and the architects' rhetoric? Work carried out by the Benson + Forsyth practice prior to their engagement on the MOS project offers a possible and indeed highly plausible explanation of their design decisions regarding the entrance tower. As will be seen in Chapter Three, the Museum of Scotland is basically comprised of three simple solids: a cylinder; a triangular prism; and a cuboid and this form of spatial massing occurs repeatedly in the work Benson and Forsyth carried out in the 1980s. The Oratory at Boarbank Hall in Cumbria is a small but representative example of this, and the Cumbrian Theatre proposal, the proposal for the Science Innovation Centre at Strathclyde University, the Glasgow Auditorium, and the Glasgow Eurodome all utilise and develop this theme.
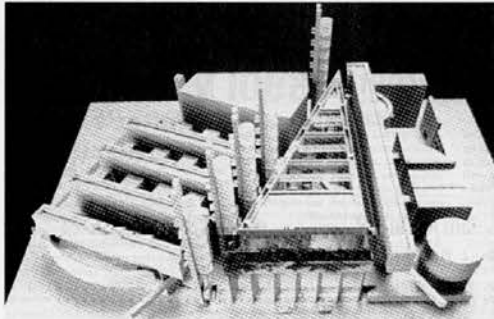
Fig. 43. Scheme for a Science Innovation Centre at Strathclyde University, 1989, by Benson + Forsyth.
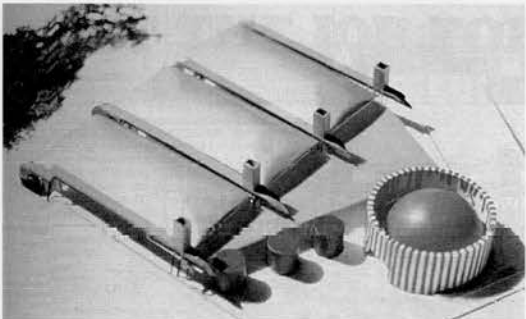
Fig. 44. Benson + Forsyth's winning entry in the Glasgow Eurodrome competition of 1988.

It seems clear that Benson and Forsyth brought to the Edinburgh project a pre-determined inclination to use these standard volumes within their design solution. This is the most credible explanation for the form of the tower and the other main elements of the design, but still leaves the question as to why Benson chose to link his entrance tower to the Half Moon Battery at Edinburgh Castle. One answer to this is that the architects sought to gain authority, legitimacy, and a sense of 'Scottishness' for the Museum by equating it to Edinburgh Castle, a potent symbol of the strength and identity of the Scottish nation,
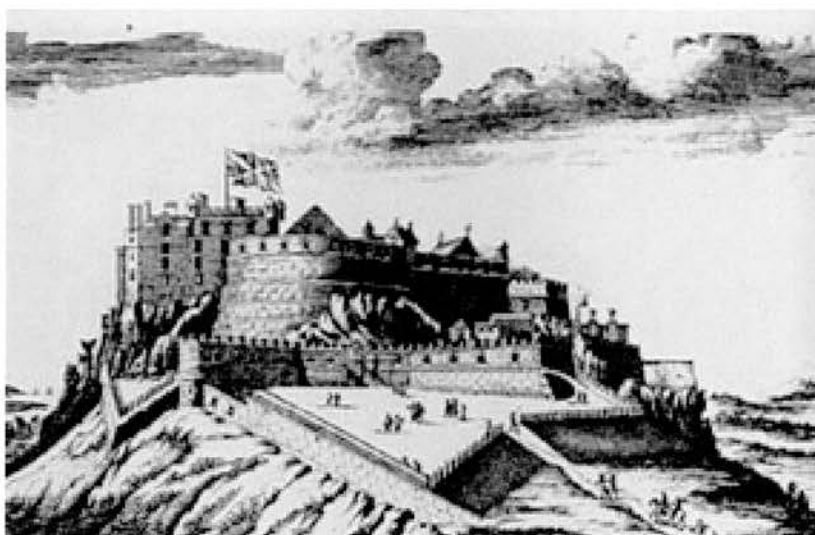
Fig. 45. Edinburgh Castle, drawn by John Slezer, 1693.

and their 'architectural images of castellated lineage' unequivocally place the Museum within the powerful tradition of Romantic Nationalism. However, another reason for this allusion is also discernible. By forwarding such a connection with the Castle, the architects were seeking to justify what is, in effect, a completely arbitrary and decontextualised design decision. This rhetoric of explanation and legitimisation is especially necessary in this case, as Benson + Forsyth are a firm who sell themselves by and pride themselves on their 'contextual modernism'.

Up until now the round corner tower alone has been analysed, but other aspects of the Museum's architecture also exhibit vestigial defensive features. These are best described in Benson's own words:

> This [the bridging of the different scales and spatial organisations of the old Royal Museum and the houses around Greyfriars] is achieved by wrapping a lower, outer building, containing the study galleries and the temporary exhibition space and following the precise undulations of the field roads, around the higher, rectilinear, main gallery and the triangular entrance space. The organisation is reminiscent of the Castle's curtain wall and keep, whilst the juxtaposition of the plastic outer wall with the formal geometry and axiality of the main gallery mediates between the Old and New Towns, whose respective characteristics both overlay the site.[79]

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[79]BENSON, "Benson + Forsyth", Mac Mag, 1991, p. 6.

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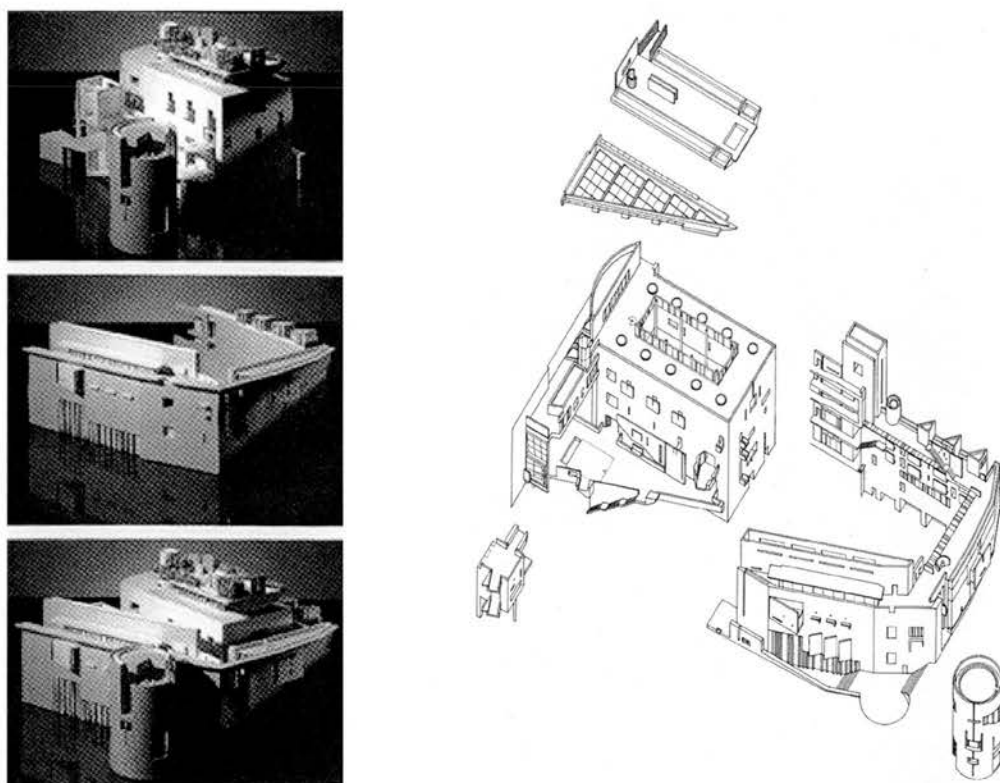
Fig. 46. Deconstructed model of the MOS by Benson + Forsyth.

Fig. 47. Exploded axonometric drawing of the MOS by Benson + Forsyth.

The architects intended that their massed forms should resemble the central keep and enclosing curtain walls of Edinburgh Castle, and this analogy, the two constituent parts of which will be considered now, appears to be relatively sound.

The basically cuboidal main gallery block of the Museum set back from both street facades, represents the rectangularly sectioned keep of St. Margaret's Chapel at Edinburgh Castle, and this aesthetic echo is aided by the relative height of the tower, which stands proud not only of the other elements of the Museum's form, but also of its neighbours.
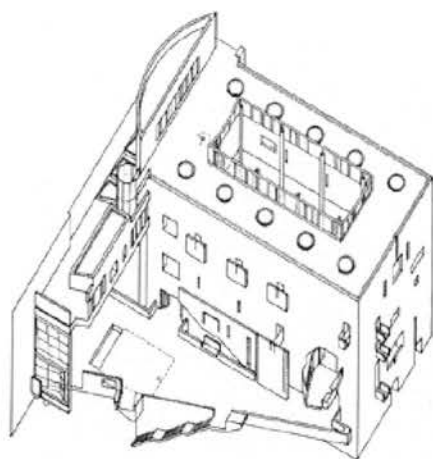
Fig. 48. Central 'keep' or 'donjon' structure at the MOS.
Fig. 49. St. Margaret's Chapel, Edinburgh Castle, dating from the reign of King David I.

However, as with the round tower, this feature is certainly not specifically representative of Scottish architecture, as 'the characteristic Norman keep of England is unknown in Scotland, unless we accept that St. Margaret's Chapel in Edinburgh Castle formed part of one.'[80] Benson and Forsyth obviously accepted this, but Hannah in her book, 'Story of Scotland in Stone', did not, omitting Edinburgh Castle's chapel from a similar survey. She writes, 'of the great square Norman donjon towers, so familiar in the landscapes of England and of France, Scotland contains not one single specimen, though at Norham there is an English example only a few yards from the border.'[81] It could, therefore, be the traditional Scottish tower house form, rather than the Norman keep, on which the architects are drawing and a brief consideration of these structures reveals several parallels with the MOS.

Despite the occasional occurrence of round towers in Scotland, it was the square tower,[82] later transformed into the medieval tower-house, which was the over-riding tradition. An early example of such a structure is the square tower of Restenneth dating from the 8th century, but by the medieval period in the 14th and 15th centuries, examples of more developed towerhouses proliferated. 'By far the most numerous of Scots castles are tower-houses, in which all the elements - stores, kitchen, hall, chamber and bedrooms - were set on end, served by one or more

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[80]HAY, 'Architecture of Scotland', p. 25.
[81]HANNAH, Edith B. 'Story of Scotland in Stone', (Edinburgh & London: Oliver and Boyd, 1934), p. 63.
[82]These were of square or more usually rectangular plan.

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turnpike stairs as vertical corridors.'[83] This construction type affords several parallels to the MOS's main gallery block, the most obvious being the visual similarities. This visual connection is illustrated below with reference to Threave Castle in Kirkcudbrightshire, which was, 'built on an island in the River Dee by Archibald 'the Grim', 3rd Earl of Douglas, between 1369-90, [and] consists of a sombre, grey, four-storey 70ft (21m) high tower with a small courtyard surrounded by a wall (rebuilt c. 1455 on earlier foundations) with three-storey round towers with loop holes.'[84]
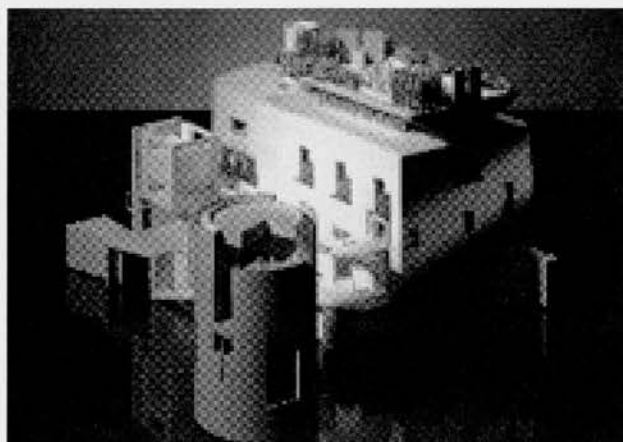
Fig. 50. White concrete main gallery tower of the MOS.
Fig. 51. Threave Castle, Kirkcudbrightshire.

The second correspondence between the two forms is that both exhibit vertical organisation. At the Museum, this vertical architectural promenade linked to the displays is immediately apparent and jars against the strongly horizontal planning of the adjacent Royal Museum. A similar ordering system is present in Scotland's many tower houses, described by McKean in the following terms: 'Its most characteristic manifestation was the fortified house which, from the fourteenth century onwards, took the form of a tower, the living accommodation vertically disposed, the ground floor invariably kitchen and cellars.'[85] By the time of the Scottish Renaissance however, the medieval style of vertical living had been supplanted by horizontal planning. Another common feature derives directly from this vertical planning, and that is the use of turnpike stairs. [86] The turnpike stair was the standard model in all tower houses due to their vertical axes and restricted space,

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[83]HANNAH, 'Story of Scotland in Stone', p. 47.
[84]KEAY, (Eds.), 'Collins Encyclopaedia of Scotland', pp. 940, 941.
[85]McKEAN, "The Scottishness of Scottish Architecture", in SCOTT, 'Scotland: A Concise Cultural History', p. 10.
[86]This is a uniquely Scottish term for a spiral staircase.

and the example below is found at Bothwell Castle, "probably the grandest ruin of its kind in Scotland' (MacGibbon and Ross) and 'amongst the foremost secular structures of the Middle Ages in Scotland' (D. Simpson).'[87]

Fig. 52. Turnpike stair at Bothwell Castle, Lanarkshire.

This spiral staircase, emblematic of castle and tower house architecture, is used by the architects at three points around the perimeter of the Museum as shown in figure 53 overleaf.

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[87]KEAY, (Eds.), 'Collins Encyclopaedia of Scotland', p. 93. 'Bothwell Castle stands above a bend in the Clyde opposite the site of Blantyre priory. It consists of a large courtyard within high surrounding walls commanded by corner towers, in other words a classic castle of enceinte or enclosure. The main tower, a massive keep or donjon, with adjacent wall, is the oldest part and was probably built for Walter de Moravia (i.e. Moray, Murray) in the second half of the 13th century.' [Ibid., p. 93.]
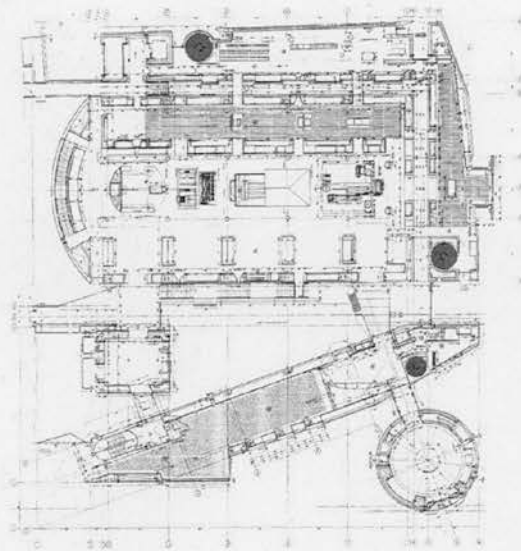
Fig. 53. First floor plan view of MOS with spiral staircases highlighted.

In an avoidance of banal pastiche, however, the steps cantilever from a central column and stop just short of the wall, creating the unusual and dramatic effect of light passing between tread and wall.
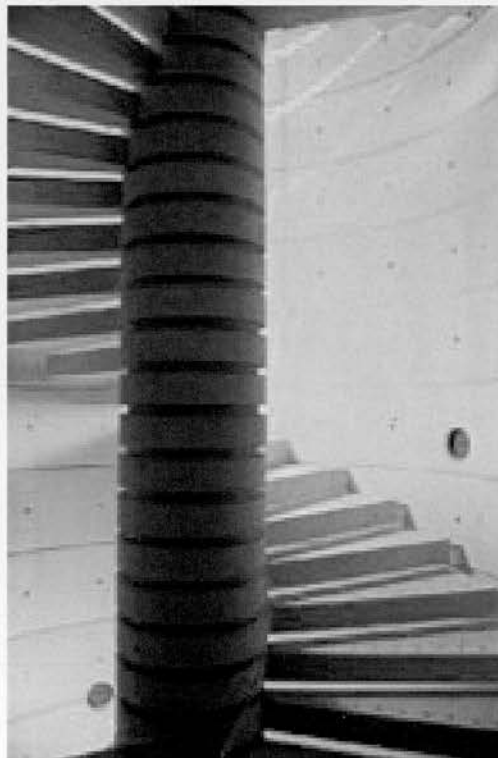
Fig. 54. Internal turnpike or spiral stair at the MOS.

A further suggestion of the medieval tower house within the MOS's form is rather more subtle and has been brought to attention by Macmillan. He writes, 'Scottish castles were not brutal war machines, the kind of static armour that Edward I built to secure his conquests, nor the dead weight of stone that George III used at Fort George to hold down the Highlands. They were fortified homes: quirky, asymmetrical, casually human'.[88] In likening the MOS to this description, he draws attention to the irregularity and asymmetricality of the stone courses, the door, window, and slit openings, and the building's roofline, and in doing so creates a strong linking argument: 'Places where windows or doors cut deep into the walls give the impression of strength, but the windows, too, are irregular in shape and size. A stepped window in the tower, for instance, indicates a staircase inside following its curve.'[89]
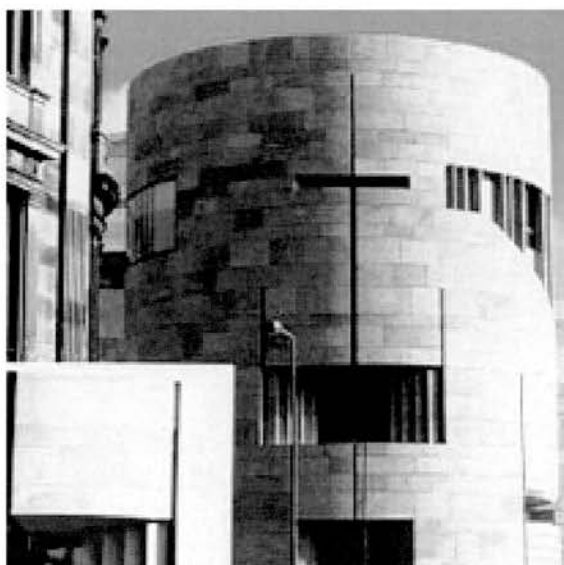
Fig. 55. Stepped window and other detailing in MOS's entrance tower.

Intrinsically related to this point is the idea of the tower house growing organically in just such a 'quirky, asymmetrical, casually human' manner. This development is well explained by McKean:

> If you examine the plans of an old Scottish mansion, you can read it like a story-book from the foundations to the chimney-tops. You can distinguish the original tower that the family once lived in … You will then notice an addition when the family became richer and times were less warlike … It was

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[88]MACMILLAN, in BENSON and FORSYTH, 'Museum of Scotland', p. 113.
[89]Ibid., p. 113.

never built solely to look picturesque or interesting ... It was built from time to time to suit the necessities of the day[90]

and the aforementioned irregularity and asymmetricality in the Museum's architectural massing and detailing provides the aesthetic link to this type of construction. Finally, this architectural reference is reflected in miniature within the Museum, linking the container to the contained. An oak door from such a tower house is featured in the exhibition along with the following text: 'This door, studded with iron nails and carved with Renaissance motifs, was made for defence. Medieval Scotland was often troubled and violent, as landowning families became involved in feuds. The landowners lived in strong defensive tower houses to protect themselves from their enemies.'[91]

The second part of this architectural allusion, the Museum's lower curved perimeter wall, turns the corner from the north to the west façade and is strongly resemblant of the defensive curtain wall at Edinburgh Castle: an essential element in the castle typology.

Fig. 56. Bastion and curtain wall at Edinburgh Castle.
Fig. 57. MOS's surrounding 'curtain wall' form.

Reaching beyond this specific reference however, the Museum's 'curtain-wall' form also relates to the wider National Romantic tradition, and castellated Scottish architecture in general. An excellent example of such a construction can be found at Dunstaffnage Castle near Oban, where the rugged and ruinous battered walls and conglomerate platform date from the thirteenth century and may be attributed to Duncan MacDougall. As the Keays describe it, 'roughly rectangular, the walls

[90]ROWAND ANDERSON, Robert. 'Place of Architecture in the Domain of Art', (Edinburgh: Publisher unknown, 1889), p. 24.
[91]Museum of Scotland text. Floor title: 'The Kingdom of the Scots'. Theme title: 'New Horizons', p. 2.

include three corner towers, two still standing though the truncated third probably contained the main chambers. The walls incorporate a variety of embrasures, arrow-slits, windows and a fine doorway',[92] and this derivation is evident from the figures below.
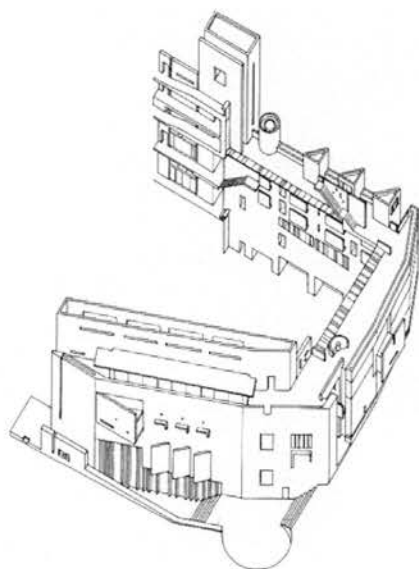
Fig. 58. Architects' drawing of the 'curtain wall' element of the MOS.
Fig. 59. Curtain wall of Dunstaffnage Castle, nr. Oban, Argyll.

Often associated with this enciente castle arrangement was a defensive moat, and as Macmillan concurs, echoes of such a fortification are observable at the MOS: 'The round tower on the corner suggests castles and a deep basement area beneath the facade could be a dry moat'.[93] Indeed, this enceinte organisational system is also at the very heart of the MOS, both in the name and form of the triangular Orientation Court. Following a gift to the Museum from the owner of Hawthornden Castle in Midlothian, this main public concourse was renamed the Hawthornden Court, and its architectonic form is certainly redolent of its namesake,

> … perched on a sandstone cliff, high above a wooded glen of the river North Esk. The castle buildings are ranged on two sides of a triangular court, with a ruined 15th-century tower at one corner. Below the castle, a network of caverns and passages is cut out of the rock face. Some are medieval, others perhaps earlier.[94]

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[92]KEAY, (Eds.), 'Collins Encyclopaedia of Scotland', p. 274.
[93]MACMILLAN, in BENSON and FORSYTH, 'Museum of Scotland', p. 113
[94]Museum leaflet on the Hawthornden Court, (Edinburgh: National Museums of Scotland, 1999/2000).

Most straightforwardly, their triangular plans relate the two forms, but the aesthetic connection goes deeper than that as Macmillan explains: 'But this [the MOS's Hawthornden Court] does not feel like an ordinary indoor space, more indoors-outdoors like the courtyard of a castle'.[95] However, the organisational basis and forms of these enceinte castles were not 'native' to Scotland, but were introduced and assimilated from abroad, and particularly England, as Hannah explains: 'Scottish baronial architecture seriously begins in the thirteenth century, when the enceinte castle was introduced from the south.'[96] So again although Romantic, this allusion was not specifically national, but it served two other significant functions.

Referring to the architects' explanation of the keep and curtain wall metaphor reveals the first of these functions. They wrote, 'The organisation is reminiscent of the Castle's curtain wall and keep, whilst the juxtaposition of the plastic outer wall with the formal geometry and axiality of the main gallery mediates between the Old and New Towns, whose respective characteristics both overlay the site'.[97] Therefore, just as the Museum's two dimensional plan form addresses this urban and epistemological juxtapostion, so too does its three dimensional architectural form. Its irregularly curved curtain wall is intended to mirror the facades of the Old Town dwellings lining the winding field roads, whilst the rationality and geometricality of its central 'donjon' relates both in form and theory to Edinburgh's eighteenth and nineteenth century urban improvements. The second function or strategy associated with this castle analogy is also contextually advantageous, and it is useful to return to the words of the architects here:

> The brief called for a building which would be fully integrated with, and entered through, the existing museum. The new building would therefore have to reconcile the change of scale and expression between Fowke's building, which is one of the few horizontally organised buildings in Edinburgh, and the diminutive, vertically organised houses clustered around Greyfriars. This is achieved by wrapping a lower, outer building, containing the study galleries and the temporary exhibition space and following the precise undulations of the field roads, around the higher, rectilinear main gallery and the triangular entrance space.[98]

Benson and Forsyth were therefore circumscribed by both the height lines and scale of surrounding buildings, but the three part 'keep and curtain wall' organisation they

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[95]MACMILLAN, in BENSON and FORSYTH, 'Museum of Scotland', p. 115.
[96]HANNAH, 'Story of Scotland in Stone', p. 113.
[97]BENSON, "Benson + Forsyth", *Mac Mag*, 1991, p. 6.
[98] Ibid.

deployed helped to resolve this problem. The keep-like main gallery block is the highest point in the immediate vicinity, excepting Rowand Anderson's Old College dome, but its height is successfully negated by both its set back, southeasterly position on the site, which renders it either partially or wholly obscured from pavement level, and its white rendered finish, which to some extent camouflages it against Edinburgh's cloudy skies.

Fig. 60. White rendered tower of the MOS rises above the stone cladding.

The most decisive element regarding sensitivity to height lines and scale, however, is the curtain wall. This outer form of the building exactly matches the cornice height of the old Royal Museum of Scotland at that juncture, with the prominent line at ceiling height of the second floor also being reflected, but then reduces in height according to the slope of the site, to equate with the height and scale of the buildings on Bristo Port and Bristo Street. Similarly, there is a step down again to the diminished height of the third element, the circular corner tower, a further concession to the reduced scale of the medieval Greyfriars area.

The wealth of defensive, castellated references in the built form of the MOS is clearly apparent, but these are not the only architectural features deferential to the pre-modern world. A more domestic and urban evocation is detectable in the various narrow, but soaring spaces within the Museum, such as the towering, double-skinned cavity parallel to the building's western facade. This distinctive space is intended to evoke the dark and claustrophobic, yet vertiginous alleyways and passages of medieval Edinburgh's Old Town, and in their publication, Benson and Forsyth used the following two images to draw attention to this visual likeness:
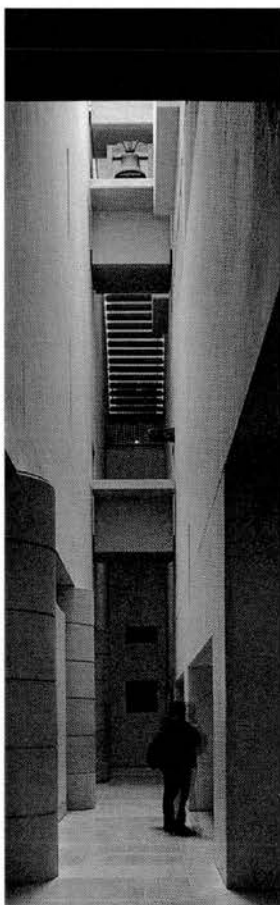
Fig. 61. Narrow 'ravine' on the south side of the Museum.

Fig. 62. Vertiginous alleyway of Edinburgh's pre-Enlightenment Old Town.

Within the architectural sequence of the building, these 'crevasses' provide spatial variety, surprise, and distortion, and like the exterior 'cliff faces' mentioned in Chapter One, draw much of their charge from the sublime. Such manipulation of scale and perspective, only visually correctable when the space and particularly the connecting bridges are occupied, is somewhat reminiscent of the dramatic grandeur of Piranesi's fantastical designs from the early eighteenth century,[99] which were to have a profound influence on the development of the Romantic movement.

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[99]Giovanni Battista Piranesi (1720-78), was born in Venice but was active for most of his career in Rome. He was mainly the engraver of views of Roman antiquities, but was also an archaeologist, architect, and architectural theorist of seminal importance.

Fig. 63. Magnitude of scale at the MOS.
Fig. 64. Distorted scale of Piranesi's fantastical prison design.

Although this particular influence has not been cited by the architects of the Museum, they were certainly aware of the precedents to their spatial manipulation, with Benson at the 'Heritage Convention' likening their superimposition of three-dimensional spaces to that found within Baroque churches. Such spatial distortions may place their work outside of pure modernism, however, as 'many architects today would reject the idea of spatial illusions, because they go against the doctrine of 'honesty' in architecture, a doctrine which arose in the nineteenth and twentieth centuries as a reaction to eclectic architecture.'[100] This aspect of the architecture then distances it from 'honest', visual modernism, whilst creating a link to eclectic 'postmodern' structures, which exhibit features of spatial illusion.

A nationally Romantic interpretation of pre-modern architectural forms is an integral component of the architects' vocabulary at the MOS and this approach forms part of a wider movement in Scotland, which has been and still is exceptionally strong. However, since its inception and prolific continuation, this National Romantic tradition has always been tainted with accusations of intrinsic cultural poverty.

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[100]Ibid., p.6.

'A Claim of Right for Scotland', drafted in 1988, underlines the reason for the dominance of the National Romantic discourse in Scotland: 'The Union has always been, and remains, a threat to the survival of a distinctive culture in Scotland',[101] and Scott succinctly explains the effects of this disenfranchisement, believing that after the Union of 1707, 'Scotland had become an invisible country internationally, and the culture of invisible countries is also invisible. Inside Scotland itself the loss of independence was traumatic and it began a decline into a complex of inferiority and powerlessness from which we still suffer.'[102] The long term detrimental effects of this political marriage on Scottish culture and society have been most vociferously argued by Beveridge and Turnbull. They address the concept of inferiorisation and in Scotland's case this is unmistakably linked to the notion of geographical core and periphery. Inferiorisation is defined by them as, 'the loss of self-belief and acceptance of the superiority of metropolitan mores engendered by the sustained and ubiquitous institutional and ideological pressures which are exerted by 'core' powers on their satellites'.[103] The authors principally follow the argument laid down by Tom Nairn, that from the time of the Union, the English have devalued Scottish culture to such an extent that an inferiorist mindset was common place even within the Scottish intelligentsia. This position is substantiated by the fact that the history of Scotland was chronicled mainly by Englishmen, who portrayed Scotland as a primitive and barbarous place trapped in the Dark Ages, in stark contrast to the contemporaneous advanced and civilised society of England. Indeed, many of these first accounts of Scotland were written by Englishmen, such as H.G. Graham and Henry Hamilton, who had never been to Scotland, and even those chroniclers who did actually travel across the border, in the main found or at least purported to find Scotland a rugged and uncouth land. As Henry Grey Graham wrote in his book, 'Social Life of Scotland in the Eighteenth Century', first published in 1889: 'The few Englishmen who journeyed to North Britain,[104] from spirit of adventurous curiosity or from stress of business, entered upon the expedition with the air of heroic courage with which a modern traveller sets forth to explore the wild region of a savage land.'[105] Indeed, Scotland was widely condemned by such writers as an untamed and

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[101]'A Claim of Right for Scotland', (Ed.), (Edinburgh: Report of the Constitutional Steering Committee, July 1988), p. 2, in SCOTT, 'Scotland: A Concise Cultural History', p. 11.

[102]SCOTT, "Introduction", in 'Scotland: A Concise Cultural History', p. 10.

[103]BEVERIDGE, Craig, and TURNBULL,, Ronald. 'The Eclipse of Scottish Culture', (Edinburgh: Polygon Press, 1989), p. 112.

[104]This was the popular name for Scotland at this time, on both sides of the border, and is an excellent example of the insidious process of 'de-nationalisation'.

[105]GRAHAM, Henry Grey. 'Social Life of Scotland in the Eighteenth Century', Volume I, (London: Adam and Charles Black, 1900), p. 2.

inhospitable land, with the Scots themselves usually being dismissed as an abject race. Graham continues lyrically on his theme, explaining that entry into Scotland was not too shocking via the east coast route, but claiming that the unwary visitor entering through Dumfriesshire and the moors of Galloway,

> ...was at once filled with dismay by the dismal change from his own country - the landscape a bleak and bare solitude, destitute of trees, abounding in heather and morass and barren hills; soil where cultivation was found only in dirty patches of crops, on ground surrounded by heather and bog; regions where the inhabitants spoke an uncouth dialect, were dressed in rags, lived in hovels, and fed on grain, with which he fed his horses; and when night fell, and he reached a town of dirty thatched huts, and gained refuge in a miserable abode that passed for an inn, only to get a bed he could not sleep in, and fare he could not eat, his disgust was inexpressible.[106]

Indeed, many earlier travellers to the 'periphery' had proposed that nature, having become tired of the core, moved to the periphery where she ran riot experimenting with form and producing freaks. In this era, Scotland, like Ireland, was viewed as a peripheral land, as, with the Americas undiscovered it occupied a place at the edge of the known world. This theory led to nature in Scotland being seen as older and more profligate than elsewhere, and 'even to the close of the seventeenth century Scotland was still a kind of *terra incognita*, which men thought of as a half-mythical country, where strange things might exist which it was irrational to look for in any place nearer home'.[107] As already perceived with regards to the country's flora and fauna, in both the early and later eighteenth and nineteenth century accounts, the 'natives' are also implicitly, and occasionally explicitly, referred to as an extant people or the remnants of a past age. These chroniclers gave a sense of not only having visited a foreign country, but also of having stepped back in time, and almost of having been allowed glimpses of a lost 'species'.[108] This is an interesting theme and one to which we will return in Chapter Three.

This remarkably negative representation of Scotland offered by English chroniclers had its roots in Scotland's 'peripheral' status in comparison with England's concurrent position at the political, economic, and social 'core'. In a similar relationship to that of coloniser and colonised, England was confirming its position of dominance by inferioratising and hence subjugating the Scots. Moving into the

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[106]Ibid., p. 2.
[107]BROWN, P. Hume. 'Early Travellers in Scotland', (Edinburgh: David Douglas, 1891), p. ix.
[108]This affords a comparison with the work of Schinkel, 1826.

nineteenth century, a change to this balance of power occurred. In this era, lowland Scotland became more assimilated to England, and vice versa, with previous differences between the two largely dissolving. This led to the imaginary boundary or border between 'core' and 'periphery', or 'civilisation' and 'barbarity', being pushed northwards to a line separating the Highlands from the Lowlands. In these years, the notion of the Highlander as a 'noble savage' was a popular and enduring image. Coming into the twentieth century, critics such as Beveridge and Turnbull argue that marginalisation is still prevalent and institutionalised, pointing for substantiation to the fact that Scottish schoolchildren are taught practically no Scottish history. However, a marked Scottish cultural Renaissance in the 1980s and 1990s prompted the establishment of the new political Assembly, and so the contemporary relevance of such Scottish inferiority complexes should not be over stated.

Within this historical context of at least perceived inferiorisation and peripheralisation, Romantic Nationalism was simply a rearguard action, partially instinctive and partially manipulated, to promote and sustain a distinct Scottish culture and hence identity in the face of 'British', or English, suzerainty. At the forefront of this cultural reaction were the previously described structures of Ossian, Kailyardism, tartanry, and architectural Romanticism: 'As J.G. Lockhart pointed out, Walter Scott did much to restore Scottish self-respect and save us from the worst excesses of this feeling of shame; but its effects are with us still.'[109] Paradoxically however, these very elements of culture engendered to protect and enhance Scottish national identity and credibility, in fact weakened it further. The very invention, distortion, and 'kitschy' nostalgia which made the genre so attractive and potent in the first place, were easy targets for critics from the cultural 'core'. Soon this negative critique filtered through from the English to the Scots themselves, to the point where the vast majority of Scotland's cultural critics lambasted and spurned Scottish national culture, labelling it 'mindless kitsch' and 'brainless vulgarity'. McCrone writes,

> Scottish culture has been dominated by the two mythic structures of tartanry and Kailyard to such an extent that they seem to offer only negative representations of Scotland, reflecting the political and cultural developments since the Union of 1707. This view has been so predominant among Scottish intellectuals that their contribution to the development of neo-nationalism in Scotland has been negative and critical.[110]

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[109]SCOTT, 'Introduction', in 'Scotland: A Concise Cultural History', p. 11.
[110]McCRONE, 'Scotland the Brand: The Making of Scottish Heritage', p. 174.

Beveridge and Turnbull reinforce this statement:

> What is at first surprising is the fact that these images of backwardness and inferiority also govern the Scottish intelligentsia's discourse on Scotland. The overwhelming tendency of this discourse is to portray Scotland as a country which can be exhaustively described in terms of poverty, philistinism, bigotry, repression - a land of no gods or heroes.[111]

This persistent degradation of Scottish culture in turn led to a pronounced concentration on 'low' rather than 'high' culture by Scottish academics, which again paradoxically served to propagate inferiorisation and suppress further works of 'high' culture from emerging. The final product of this inferiorisation was the sustained dominance of forms of 'low' culture, and especially iconography,[112] but this cycle was finally broken in the last two decades of the twentieth century with a resurgence in the quality and profile of Scottish cultural output. Today, in a sense, National Romanticism has been replaced or augmented by another mythical interpretation of the past, heritage, which will be discussed in Chapter Four.

Aspects of the MOS's architecture have been shown to continue this tradition of Romantic Nationalism, but can these aesthetic interpretations, in accordance with this discourse, be categorized as 'mindless kitsch'? In answer, the abstraction of forms and the relative subtlety of allusions made, allow the Museum's architecture to avoid this criticism. The architects have successfully avoided blatant representation and pastiche. The same cannot be said of the only non-natural, National Romantic allusions at the CMC; the Grand Hall's 'canoe-shaped' roof and 'oar-shaped' columns, both being more representational than symbolic. In the MOS, the charge of sentimentality is much harder for Benson and Forsyth to avoid. With reference to the castle analogy, although the architects claim that it was merely a device to reconcile the disjunctures and complexities of the site, it is apparent that they were in fact intending to tap into a sentimental and loaded interpretation of nation: the image of the castle being deeply embedded in popular culture and folklore through the writings of Walter Scott and his house Abbotsford, the Victorian tartanry of Balmoral, biscuit-tin images of the dramatically sited Eilean Donan Castle, and Holywood productions such as *Braveheart*. This architectural

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[111]BEVERIDGE and TURNBULL, 'The Eclipse of Scottish Culture', p. 112.

[112] This is partly explained by the concentration on 'low' culture by Scottish intellectuals, as already mentioned, but is also due to its seizure by the English. A good example of this is the appropriation of tartan for Scottish regiments in the British Army, an idea which was put forward by the English.

interpretation is therefore infused with a latent sentimentality, appropriating as it does powerful symbols of Scotland's historic struggle for independence, with the semi-mythical associations of fearless Highland warriors and impenetrable military strongholds. In making such connections, the architects are both feeding from and perpetuating Scotland's Romantic myth.

2.4   National Romanticism in Interior and Exhibition Design

Having highlighted Benson and Forsyth's Romantic attempts to produce 'a subliminally appropriate fit between the container and the city' at the MOS, the next relationship to be examined in each museum is that 'between the collection and its container'.[113] Just like the building fabric itself, the material culture contained within the museum has a certain site specificity, as each artefact is a product and hence reflection of the specific location and circumstance under which it was made and utilised. It is the task of the curators to create the conditions in which the object can reflect or communicate this previous context and this is approached very differently in the different museums.

At the MOS this intention was referred to by the Exhibition Sub Committee, which stated, 'Our aim is to ensure that the exhibition relates to the environment outside, both the immediate environment of Edinburgh, and to Scotland as a whole',[114] and this contextualisation and communication is achieved via a variety of techniques. Firstly, some of the architectural references discussed previously provide a tangible link between the displays and their more distant reality. For example, exhibits on the impenetrable fortifications of Threave and Tantallon Castles, which were only defeated after centuries of attacks and sieges by bribery and the invention of firepower respectively, are augmented by the castellated form of the Museum's architecture, which creates a three-way dialogue with the remote castles themselves. Additionally, the transformation from tower house to mansion house, which is loosely invoked in the Museum's design, is traced in the displays which contain the following quotation by the Earl of Strathmore, dated from 1677: 'Who can delight to

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[113]BENSON, "Benson + Forsyth", *Mac Mag*, p. 4.
[114]'Museum of Scotland Exhibition Sub-Committee Report', (Edinburgh: Museum of Scotland, 1994).

live in his house as in a prison? ... Such houses truly are worn quyt out of fashione, as feuds are ... the cuntrie being generally more civilized than it was.'[115]

The next obvious communicative method employed within 'The Kingdom of the Scots' is the placement of architectural features and fittings in their correct positions. For example, a sculpted stone arch from Forteviot, Perthshire, and a lintel with Royal Arms from Leith, are both mounted above doorways. A painted ceiling from Rossend Castle, Burntisland, Fife, and later in the exhibition, four fifteenth-century stone roof bosses from Trinity College Church, are located at ceiling level as in their authentic settings.

Fig. 65. Stone arch, Forteviot, Perthshire, displayed as in its original context.
Fig. 66. In-situ display of wooden painted ceiling from Rossend Castle.

Similarly the Beaton panels, 'an outstanding example of late Gothic woodwork',[116] along with sixteenth century window shutters from Leith, are wall mounted to evoke their original locations and uses, and other examples such as these abound within this display area.

Supplementing this careful placing of artefacts is another contextualising strategy; the creation of an appropriate spatial ambience, which is particularly in evidence at

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[115]Museum of Scotland text. Floor title: 'The Kingdom of the Scots'. Theme title: 'New Horizons'.
[116]Ibid.

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the MOS in the Medieval and Reformed Church display areas.[117] The Medieval Church at the south of the core gallery is entered from an open, brightly day lit bridge through a small and low doorway, with a late fifteenth century monkey gargoyle from Trinity College Church in Edinburgh mounted on the wall outside beginning the cathedral contextualisation. The space entered is at once dark and confined, with the ceiling being so low that one can reach up and touch its smooth, presentation grade concrete. Aesthetically this is reminiscent of the dimly lit opulence of ecclesiastical buildings of the Middle Ages. This mezzanine level onto which one enters is suggestive of a balcony form, which was not uncommon in pre-Reformation churches in Scotland, and has been incorporated into the Museum to allow close viewing of the 'in-situ' painted ceiling from Guthrie, Angus, which depicts the Last judgement.

Fig. 67. Decorated church ceiling from Angus, elevated to its correct location.

From this elevated vantage point, fifteenth century wooden choir stalls from Lincluden Collegiate Church in Dumfriesshire are visible in the space below, as is

[117]At this time between 900 and 1707 it was the structure or matrix of religion around which society was ordered, and of the eight sub-themes in 'The Kingdom of the Scots' section, two are entirely devoted to the portrayal and exploration of contemporary religion in this period, which permeated nearly every aspect of life, and profoundly influenced the nature and development of the Scottish nation. The Museum text reads, 'by the 6th century Christianity had a strong foothold in Scotland. The Church had become a powerful political force and affected the daily lives of everyone'.

an illuminated display case, which is symbolic of the altar, containing as it does altar artefacts.

Fig. 68. Hierarchical and iconic display techniques reflecting the aesthetic and ideological values of the Catholic church.

Being the luminescent focus, this case's contents may become iconic, as has another religious artefact and one of the two key objects of that exhibition: the Monymusk reliquary.

Fig. 69. The Monymusk reliquary.

This diminutive casket, 'an elaborately decorated portable house shrine, from about AD. 750, known as the Brecbennoch of St. Columba, ... brought as a revered relic to

the Battle of Bannockburn in 1314 and transferred to the Monymusk family by the Abbot of Arbroath,'[118] prominently faces the main entrance to 'The Kingdom of the Scots' exhibition. In addition to the aesthetic references described however, the space of the 'Medieval Church' also appears to be 'a metaphorical transformation of Medieval types', with its darkness allegorising the ignorance, irrationality, and mysticism of life and thought before the Enlightenment. The hushed ambience also speaks of piety and power. Moving westwards along the mezzanine level and into the final section of the 'Medieval Church', one enters an exhibition relating to 'The Survival of the Catholic Church', which describes how 'although under attack and forced underground, the Catholic Church survived and maintained its tradition of worship'.[119] Architecturally, this circular space is strongly apsidal,[120] and despite an increase in ceiling height from the previous 'Medieval Church' space, it maintains the intimacy of a chapel. A less subtle addition to the ecclesiastical ambience is the truncated crucifix window, and the way in which the upper part of this window continues on the elevation of the floor above, is surely symbolic of the pervasive influence of the church in Scotland into the eighteenth and nineteenth centuries.

Fig. 70. Truncated cross opening in 'The Survival of the Catholic Church'.

The stone cross mounted below this window signals this redolence even more explicitly.

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[118]The Project Office. 'Reference Manual. The Museum of Scotland Project', (Edinburgh: National Museums of Scotland, June 1996), Factsheet Number 6.4.

[119]Museum of Scotland text. Floor title: 'The Kingdom of the Scots'. Theme title: 'The Survival of the Catholic Church'.

[120]This is the case although it is located to the west rather than the east.
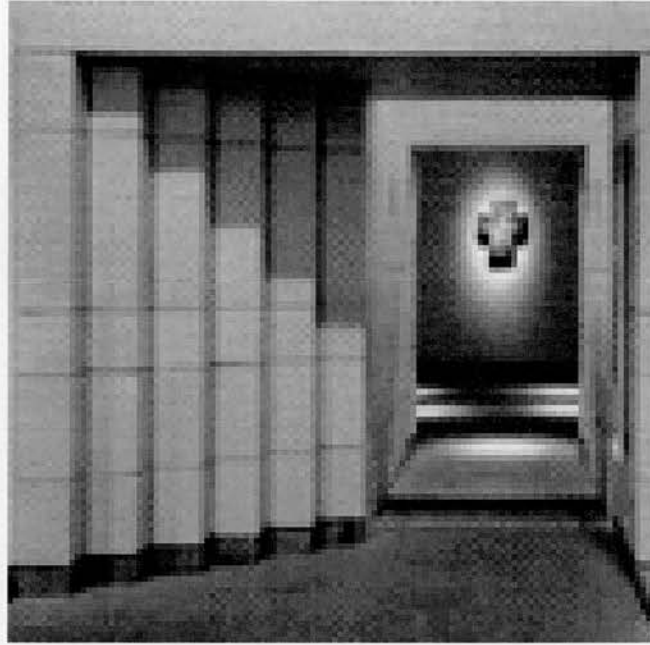
Fig. 71. The columnated doorway into this space is redolent of both Romanesque and Gothic cathedral doorways of the Middle Ages.

Turning the corner and heading north from this round 'chapel' space, one enters the area containing 'The Reformed Church' display, a relatively minor and seemingly inconsequential space from which, in fact, the key architectural generator of the entire built form of the Museum is derived.[121] The text reads, 'In 1560 Scotland broke away from the Roman Catholic Church and adopted Protestantism in the movement known as the Reformation',[122] this rupture being definitive of Scottish national identity then and now, whilst facilitating the slow but seemingly inevitable shift towards Modernity.

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[121] See the previous discussion of the National Covenant and Greyfriars Kirk.

[122] Museum of Scotland text. Floor title: 'The Kingdom of the Scots'. Theme title: 'The Reformed Church', p. 1.

Fig. 72. 'The Reformed Church' exhibition area.

Architecturally, the increase in ceiling height as well as window coverage from the 'Medieval Church' spaces, together with the plainness of the space's interior, combine to create a space abstractly reminiscent of the new unadorned Protestant buildings of worship. Significant also in this display are the two large pulpits, which are testimony to the fundamental shift which occurred at this time from a visual to an oral culture. In this new literary structure, Latin, which was incomprehensible to the masses, gave way to English, and the sermon became the central element of the service. Concomitantly, the visuality of medieval iconography, so closely associated with the Catholic doctrine, was rejected, and this is reflected in the decision of the architects and curators not to spotlight any particular artefacts within this display area, lighting which as we have seen afforded 'iconic' status to some exhibits within 'The Medieval Church'. However, again it is the metaphorical reading which provides the strongest critique of this space. Simply, the light flooding from the Lindsay Street elevation windows on the west as well as the interior light well on the east, is intended as a physical symbolisation and embodiment of the Enlightenment, which was to alter the course of Scottish history so completely.

The final and most extreme contextualising device used goes beyond this manipulation of atmosphere or ambience, to complete reconstruction. This occurs only once in 'The Kingdom of the Scots', in a small room devoted to a display on town houses, in which the walls are lined with wood panelling from the first floor of a house in Kirkcaldy High Street from circa 1700, and the fireplace is complete with cast iron fire back dating from 1697. The furniture is also authentic, comprising an armchair from Dunfermline Palace, Fife, from the late seventeenth to early eighteenth century, and a seventeenth century chair from Stirling Castle. Of course, although authentic to a particular period, as the exhibits are drawn from throughout Scotland, this display is not authentic to a specific place.

The relationship 'between the collection and its container' at the MOS is very different to that exhibited by the CMC. In comparison with the display scale at the MOS, the History Hall located at the top floor of the CMC is vast, covering an area of 4046 square metres at both main and mezzanine levels.[123]

Fig. 73. Shell of the History Hall prior to exhibition design.

It is bounded on the river side by the Grand Hall and on the other side by light wells, and is enclosed by the most visually dominant of the three copper vaults, which rises to a maximum height of seventeen metres. Not all of the display is in this space however, with approximately a third being housed in a lower vaulted area beyond

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[123]The total exhibition space of the Museum is 15,328 square metres.

the first. Intriguingly, the architecture of the History Hall, as in the other parts of the CMC, was not a response to the curatorial needs and detailed exhibition designs, having been generated before such issues were even resolved. As Macdonald and Alsford explain: 'Ideally, the exhibitions would have been designed first, and the architect left to design spaces appropriate to them, but the timeline for the New Accommodation project did not allow that luxury. The architectural design would gradually become fixed whether or not it benefited from a knowledge of the intended exhibits'.[124] The space created was not customised, but was designed to be passive and flexible enough to allow for any variety of display uses. The building's lack of architectural specificity for its eventual exhibition function clearly categorises it, within recent museum theory, as a 'black box' rather than 'temple' design, and it shares this characteristic with Te Papa. In contrast to this is the MOS, in which the exhibits are contextualised by their surroundings: 'The exhibits are displayed in niches carved out of the massive walls',[125] which evoke images of the heavy, solid masonry and dark, devout interiors of medieval castles and cathedrals. The container is 'tailor-made' for the collection, and the rigidity and iconising ambience of this system relates the MOS to the 'temple' model.[126]

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[124]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 75.

[125]BENSON, "Benson + Forsyth", *Mac Mag*, p. 6.

[126]The projected lifetime of the current displays at the MOS is at least 40 years. A parallel architectural theory to this 'black box'/'temple' model, although not entirely congruent and not specific to museum buildings, was proposed by Venturi, Scott Brown, and Izenour in their book, 'Learning from Las Vegas: The Forgotten Symbolism of Architectural Form'. Their research on the American strip led them to categorise buildings as either 'ducks' or 'decorated sheds', in the following terms:

> 1. Where the architectural systems of space, structure, and program are submerged and distorted by an overall symbolic form. This kind of building-becoming-sculpture we call the duck in honor of the duck-shaped drive-in, "The Long Island Duckling," illustrated in 'God's Own Junkyard' by Peter Blake.
> 2. Where systems of space and structure are directly at the service of program, and ornament is applied independently of them. This we call the decorated shed.
> The duck is the special building that is a symbol; the decorated shed is the conventional shelter that applies symbols. We maintained that both kinds of architecture are valid - Chartres is a duck (although it is a decorated shed as well), and the Palozzo Farnese is a decorated shed - but we think that the duck is seldom relevant today, although it pervades Modern architecture.

[From VENTURI, Robert, SCOTT BROWN, Denise, and IZENOUR, Steven. 'Learning from Las Vegas: The Forgotten Symbolism of Architectural Form', (Cambridge, Massachussetts, & London, England: The MIT Press, 1972), second edition, 1977, p. 87.]

Relating this architectural paradigm to the three museums is quite problematic, although the CMC and Te Papa, with their flexible and non-specific internal spaces, probably conform to the decorated shed model. With regards to the external form of the three museums, the MOS is most patently a 'duck', being a special 'building-becoming-sculpture' 'that is a symbol' of nation. Although somewhat

In a methodological contrast to the partial reconstruction already detailed at the MOS, the creation of a completely reconstructed streetscape has been attempted in the CMC's History Hall,[127]
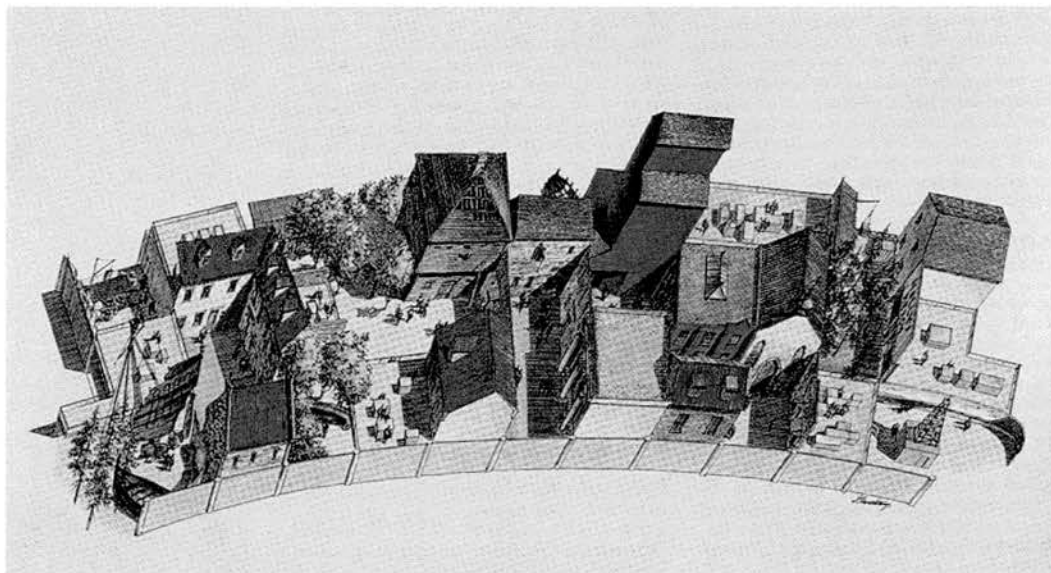
Fig. 74. Aerial depiction of the History Hall reconstruction.

inevitably raising all sorts of questions concerning historical accuracy and authenticity. The curators defined or specified three types of 'environments' to be incorporated in the display: realistic; stylized; and symbolic, and even the former and most 'authentic' of these diverges somewhat from the mostly historicist and therefore modernist approach adopted at the MOS. For example, the reconstruction of the 'San Juan', a Basque whaling galleon sunk in 1565 at Terra Nova, Newfoundland, exactly followed the evidence uncovered by underwater archaeologists working on the wreck and even incorporated authentic objects within the display, but was nonetheless a reconstruction. Similarly, although 'based on historical documents and archaeological records of two excavated sites',[128] the model of an Acadian settlement which gives a bird's-eye view of a farm in the Annapolis Valley, is of course still a scaled-down reproduction. In some cases the reasons for utilising such a technique are clear: 'some exhibits allow for handling and use of

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ambiguous, the CMC and Te Papa both generally lack such integral symbolic allusions, thereby falling into the category of 'decorated shed'.

[127]This approach was driven by the long and narrow dimensions of the space.

[128]BOURGAULT and RUDDELL, 'Guide to the History Hall', p. 12.

artifact replicas'.[129] One of the few parallels with this in the MOS's 'Kingdom of the Scots' exhibition is the prominently displayed Tomb of Mary Queen of Scots by Cornelius Cure, which is in fact only a cast of the original, dating from 1606-12, which resides in Westminster Abbey. Critically, however, this information is divulged in the display text. Even the 'realistic' environments at the CMC fall short of the MOS's academic, historicist standards of authenticity, and this gap is increased when one considers the CMC's stylized and symbolic environments: 'The stylized environments visually suggest settings, such as a forest or a townscape, but deliberately leave room for the visitor's imagination. Symbolic environments contain only icons (eg. building shells) without a surrounding setting'.[130] A definitive example of the stylized technique is found throughout the exhibition in the reconstructed architecture. At first storey level in every case a 'realistic' approach was adopted, with the buildings being reproduced at full scale with the use of authentic construction methods and materials. However, because of the limits to the load-bearing capacity of the Hall's floor, the upper storeys exemplify the 'stylized' method, being counterfeit structures made from lightweight synthetic materials.[131]

A stark disparity emerges between an historical and a heritage-based approach to exhibition design, relating to both the exhibits and their surrounding interior design. Inevitably both approaches have their defenders and critics, and this discourse, to be continued in Chapter Four, is one of the most weighty and contentious in contemporary museology. As Macdonald and Alsford explain, the pragmatic difficulties associated with the 'heritage' solution in the CMC's History Hall, especially in terms of authenticity and realism, were manifold:

> Authenticity and realism is [sic] difficult to obtain when modern construction materials are used; when buildings must be placed indoors; when they must be scaled-down through lack of space; when lack of animation programmes makes the buildings seem lifeless; and when conformity to museum standards demanding low lighting of artifacts makes it seem as though it were constantly evening in the street. Similarly, a desire to be authentic makes it difficult to provide facilities for the handicapped; or to use modern technologies for interpretation, for fear they will intrude into the historical ambience.[132]

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[129]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 146.
[130]Ibid., p. 96.
[131]Typical theoretical models rather than exact replicas of specific buildings were favoured for the architectural reconstructions.
[132]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 95.

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More fundamentally, the curators would inevitably face charges of detracting from the authentic historical artefacts in their care, and creating a nostalgic and romantic interpretation of the past. In spite of this catalogue of pitfalls, advocates of the heritage-based display at the CMC cite many advantages of the technique, which are reiterated in similar defences everywhere:

> The History Hall provides examples of interpretative goals formulated for exhibitions. The intention has been to create evocative environments which project strong visual images of time, region, and theme, as well as a sense of adventure, discovery, and expectation. The exhibits offer both learning and entertaining experiences. They aim at evoking emotional responses and at encouraging physical and intellectual participation by visitors, to increase their appreciation of the Canadian heritage and to give them a sense of being intimately connected with the past. The hall has been designed to give an impression of activity and change, yet to offer different levels of experience and of information to meet the needs of different types of visitors. All elements have been orchestrated to provide a cohesive exhibition experience arousing interest, ensuring enjoyment, and thus maximizing understanding.[133]

Despite these blatant differences in curatorial approach between the MOS and the CMC, the basic organisational structures of the 'Kingdom of the Scots' and the 'History Hall' are identical, being thematic within a broad chronology. The 'Kingdom of the Scots', whilst moving through the period from 900 to 1707, is subdivided into separate topics: Scotland Defined; Land and People become a Kingdom; The Gael; Monarchy and Power; The Renaissance; Burghs; The Medieval Church; The Reformed Church; and New Horizons. Similarly, the timescale from circa 1000AD. until the Victorian Age, which is depicted within the History Hall, is then systematised under the following subject areas: On the Edge of a New World; Taking Root; Expanding Frontiers; and Towns and Trade, upon which greater themes of 'new beginnings' and 'colonial legacies' are superimposed.

Finally, reconsidering the MOS, the architecture of the exhibitions has been shown to display a nationally Romantic leaning, but can the same be said of the content of the exhibitions themselves? The 'Kingdom of the Scots' certainly opens emotively, with the Declaration of Arbroath, painted calligraphically on the walls of its ante-space, declaring: 'For as long as a hundred of us remain alive, we will never on any conditions be subjected to the lordship of the English. For we fight not for glory nor

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[133]Ibid., pp. 143, 144.

riches nor honours, but for freedom alone, which no good man gives up except with his life.'[134] This Declaration, in fact a letter sent to Pope John XXII by 'individually named nobles, barons, freeholders, and the 'community of the realm of Scotland",[135] is one of the key events represented in the displays of the Museum. Although from the contemporary perspective of recent Scottish political devolution and possible future national independence, this historic call to arms appears heavily loaded, within its intended context and reading it is merely an effective visual representation of a key moment in Scottish historical development. Scottish history is shrouded in a powerful mythical iconography, but have these perceptions filtered through into the Museum's presentations? As McKean rightly notes, 'visitors, be they from Scotland or from other countries, almost certainly arrive with preconceptions about Scotland and the Scots. Though powerful, these myths are comparatively few in number and have tended to impoverish perceptions of Scottish culture.'[136] Most powerful of these myths are those of the national Romantic hero, of which William Wallace, Mary Queen of Scots, and Bonnie Prince Charlie are prime examples.

Fig. 75. Contemporary material culture reflected the cult of the hero, as here in this glass decorated with an image of Bonnie Prince Charlie.

[134]This has been translated from the Latin, 'Quia quamdiu Centum ex nobis viri remanseruit, nuncquam Anglorum dominio aliquaterus volumus subingari. Non enim propter gloriam, divitias aut honores pugnamus, sed propter liberatem solummodo, quam nemo bonus nisi simul cum vita amittit'.
[135]COWAN, Edward J., "Identity, Freedom and the Declaration of Arbroath", in BROUN, FINLAY, and LYNCH, (Eds.), 'Image and Identity', p. 39.
[136]McKEAN, 'The Making of the Museum of Scotland. Draft Text', p. 2.8.

However, although traces of this nationally Romantic sentiment survive, the curators at the MOS have mainly avoided the traditional glamourisation of such idols, and have been sufficiently introspective and analytical to comment upon this mythical creation of heroes: 'Wallace's courage and commitment paved the way for Robert the Bruce's eventual success after years of further warfare ... Sir William Wallace emerged as a leader of Scottish resistance, and quickly became a legendary hero'.[137]

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[137]Museum of Scotland text. Floor title: 'The Kingdom of the Scots'. Theme title: 'Power in Medieval Scotland'.

CHAPTER THREE

3.1   Introduction

'...believe in [a] rational and intellectual way...'
Petrarch.[1]

The 'new modern age' had its origins in the rationalism and intellectualism of the Italian and then wider Renaissance of the fifteenth, sixteenth, and seventeenth centuries, during which, 'intellectual study overwhelmed Italy at the expense of religion'.[2] This challenge to the dominant meta-narrative of religion and the hegemony of the Vatican attempted to put in its place a new emphasis on reason and revival of Classical ideals, and shifted the focus from God to man himself.[3] As Lesnikowski explains, 'the proper subject of study this time was humanity rather than God: the human body, reactions, feelings, reasoning. Such study was described as humanistic in contrast with medieval mysticism, which tended to depreciate human ego'.[4]

Fig. 1. Michelangelo, *David* (1501-4).

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[1] LESNIKOWSKI, Wojciech G. 'Rationalism and Romanticism in Architecture', (U.S.A.: McGraw-Hill Book Company, 1982), p. 18.

[2] Ibid., p. 18.

[3] However, although the Renaissance was influential in weakening the role of the church, at no point was it a serious challenge to the authority and supremacy of Christianity, with the majority of Renaissance scholars rather believing in God in a scientific way. The religious pre-modern schema was therefore augmented by the beginnings of a new secular rationalism, but never seriously threatened by it.

[4] LESNIKOWSKI, 'Rationalism and Romanticism in Architecture', p. 18.

However, this intellectual shift was an avant-garde movement experienced by only a very small and privileged section of the general population: 'Thus the Renaissance was in fact an elitist current destined for the wealthy and affluent class, while at the same time the vast majority of Italians remained conservative *and attached to the medieval way* [my italics]'.[5] As well as being confined to a fraction of the population, the new rationale of the Renaissance had a limited brief. In architecture for example, following the discovery by Poggio Bracciolini at the Swiss monastery of Saint Gall of the classic treatise by Vitruvius, Renaissance artists and architects sought merely to emulate the Ancients, whereas their seventeenth and eighteenth century Enlightenment successors effected an enormous shift of emphasis and ambition, by attempting to supersede the achievements of the Classical civilisations.
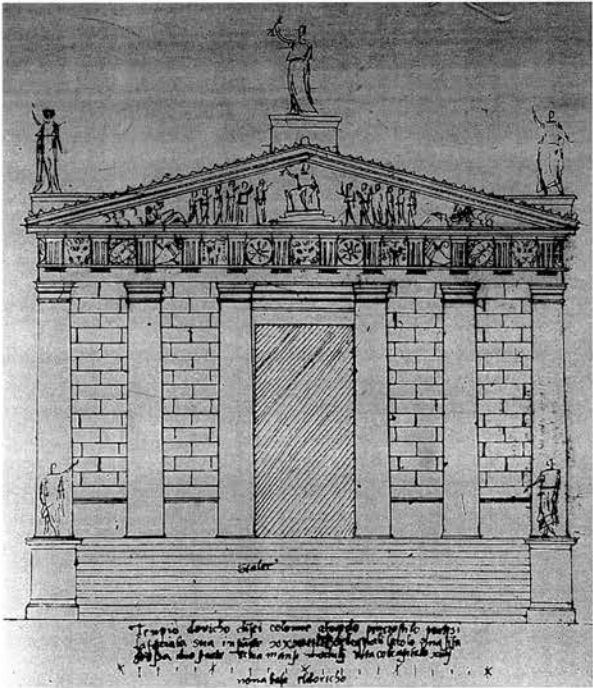
Fig. 2. Sketch from Vitruvius's 'De architectura'.

Despite the considerable impetus provided by the Renaissance, it was not until the later seventeenth and eighteenth centuries that surrounding conditions allowed Modernity to flourish.

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[5]Ibid., p. 19.

Firstly, although the Renaissance cast some doubt over the supremacy of the Church, by the time of the Enlightenment major upheavals had shaken its very foundations. In Scotland for example, the Protestant Reformation of the sixteenth century, and later the establishment of the Church of Scotland at the time of the Glorious Revolution of 1689, positively challenged the hegemony of Rome and therefore widened the horizons of intellectual possibility.[6] Beyond the sphere of religion, from around 1760 Britain witnessed the inception of the Industrial Revolution, which soon spread to become a global phenomenon, and this process of modernisation was a reaction to and expression of the new conditions of Modernity. More than a century later, this modernisation was to be the spur to the aesthetic reaction of artistic and architectural modernism, which flourished throughout the twentieth century but most significantly in its early decades, and this movement will be discussed later in Chapter Four.

Fig. 3. Opening of the Glasgow and Garnkirk Railway, 1831.

Lastly and most decisively in the context of this thesis, Modernity was implicitly bound up with the formation and subsequent dominance of the modern nation-state, a construct which was unknown in Renaissance Italy.[7] Indeed the new conditions created by the shift to Modernity, and particularly the polemics of the French

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[6] The previously unquestionable 'truth' had been challenged, albeit by another form of religion, thus opening the door for further enquiry. Additionally, in abandoning the strict clerical hierarchy of Catholicism and placing each individual at the centre of their own belief for the first time, it had been a fundamentally humanistic development.

[7] As Lesnikowski explains, 'throughout the Middle Ages there was no Italy as an organized state; there were only city-states, in conflict and competition that held them in a perpetual state of war. Only a few Italians, Machiavelli among them, thought of Italy as the motherland. Most of them considered their own cities as nations and countries'. [LESNIKOWSKI, 'Rationalism and Romanticism in Architecture', p. 18].

Enlightenment, generated the paradigm of nation-state, and this construct has remained ascendent ever since.[8] French Enlightenment thought was highly influential, but within this frame of reference it is the Scottish Enlightenment which is of most consequence, and the activities of its principal participants reveal the underlying characteristics of Modernity: '...the seed-bed of much of the later thought of the western world is to be found in this little northern country [Scotland] over such a short period of time....'[9]

Although a wider historical perspective can be taken,[10] the Scottish Enlightenment had its 'Golden Age', largely in Edinburgh, between 1760 and 1790. The possible origins of this intellectual outpouring have been much debated, but it is rather the movement itself and its objectives which are of interest here, and Daiches et. al. throw considerable light onto the latter: 'In very general terms, these could be defined as improvement of man's understanding of himself, both body and mind, both the individual and the social self; and improvement of his understanding of the natural world.'[11] Most obviously, this emphasis on improvement forms a part of Modernity's narrative of progress as described in the thesis Introduction, with 'rise, progress, development, change ... represent[ing] concepts found again and again in the writers of the Scottish Enlightenment'.[12] Secondly, the quest for understanding showed a marked divergence from the mysticism and lack of objective curiosity which typified the medieval, pre-modern episteme. With this new search for knowledge and understanding came the belief that the world was knowable, and this optimism in total knowledge is also characteristic of Modernity. Regarding the drive to improve knowledge of human biology, William Cullen, 'the great and influential teacher of clinical medicine',[13] developed scientific understanding of the human body, and this interest in physiognomical realism was pursued artistically by the great Scottish portrait painters Allan Ramsay and Sir Henry Raeburn.[14] However,

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[8] See page 187 onwards.

[9] DAICHES, David, JONES, Peter, and JONES, Jean, (Eds.). 'A Hotbed of Genius. The Scottish Enlightenment, 1730-1790', (Edinburgh: Edinburgh University Press, 1986), p. 1.

[10] This often delineates a period between the Union of the Parliaments in 1707 and Sir Walter Scott's death in 1832.

[11] DAICHES, JONES, and JONES, 'A Hotbed of Genius. The Scottish Enlightenment, 1730-1790', p. 2.

[12] Ibid., p. 9.

[13] Ibid., p. 1.

[14] They took as a starting point the work of Renaissance artists and sculptors such as Michelangelo and Leonardo da Vinci, who had dissected the human body in order to understand the form and mechanics of its surface appearance. Later, influential scientists such as Georges Cuvier, (1769-

the understanding of the human mind was of even greater concern to Scottish scholars of the period, with David Hume being pre-eminent in the field of philosophy.

Fig. 4. William Cullen, (1710-1790).
Fig. 5. David Hume, painted in 1754 by his friend, Allan Ramsay, when the sitter was 43.

In addition, John Millar, Henry Home - Lord Kames, James Burnett - Lord Monboddo, Dugald Stewart, and Thomas Reid in their various studies also strengthened this philosophical enquiry. Beyond this investigation of the individual, society for the first time became the object of study, with Adam Ferguson founding the discipline of sociology. This draws our attention to another of the important characteristics of Modernity, the rise of specialisation, which was further evidenced in the Scottish Enlightenment by Adam Smith's founding of the modern science of economics, William Robertson's founding of modern historiography, and James Hutton's instigation of modern geology. Within the sphere of improving understanding of the natural world, the achievements of the chemist Joseph Black were certainly exceptional.

1832), also surpassed the superficial, with probing investigation beneath and beyond the surface qualities of materials, combining this internal analysis with the modernist programme of classification, formulating the new 'zoological type' system of plant and animal nomenclature.
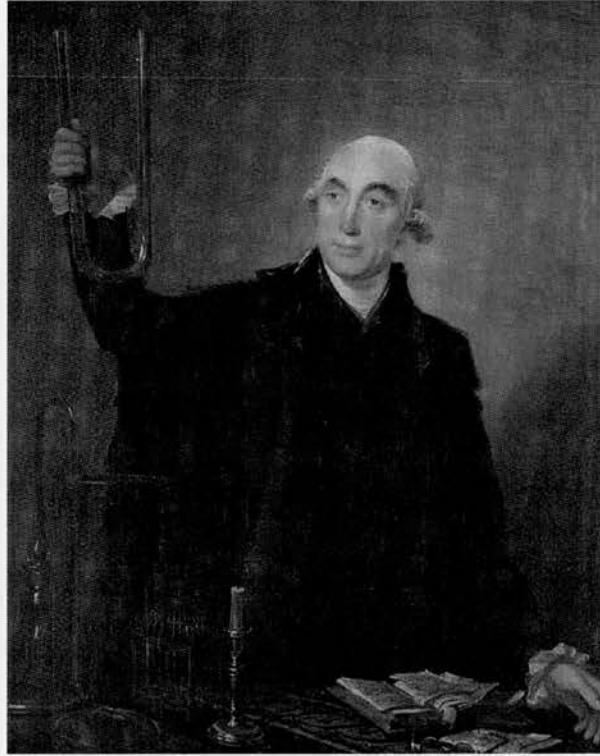
Fig. 6. Joseph Black, by David Martin.

Using many of the seminal devices of Modernity, such as a concentration on differences rather than similarities, the use of objective analysis, and the reduction of complex wholes to their constituent parts, he discovered the existence of carbon dioxide as well as the phenomenon of latent heat. In terms of practical improvements, James Watt developed the steam engine, so crucial to the Industrial Revolution, and the Adam brothers, Robert and James, designed roads and bridges as well as planning towns and creating model villages.[15] Indeed their extensions to Edinburgh's New Town, along with James Craig's original scheme, which were 'planned to achieve in architecture and in the use of space the ideals of order, elegance, rationality, progress and proper social relationships',[16] can be seen as a direct physical embodiment of the concept of Enlightenment.

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[15] DAICHES, JONES, and JONES, 'A Hotbed of Genius. The Scottish Enlightenment, 1730-1790', p. 1.

[16] DAICHES, David. 'Edinburgh', (London: Granada Publishing Limited, 1980), p. 122.

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Fig. 7. Robert Adam's design for the east front of houses proposed to be built on Leith Street, Edinburgh, 1785.

As discussed, the paradigm of the nation-state was integrally linked to the new rationality and organisation of the era of Modernity,[17] and this construct will be explored briefly in general terms, and then specifically in relation to Scotland, New Zealand, and Canada. Definitions of 'state' are many and varied, but the most infamous has been coined by Max Weber, who construes it as, 'that agency within society which possesses the monopoly of legitimate violence'.[18] Less cynical views come from Durkheim, who believes the state to be 'the organ of social thought',[19] and Giddens, who claims that, 'all states involve the reflexive monitoring of aspects of the reproduction of the social systems subject to their rule'.[20] However, taking the standard definition of state as 'a sovereign political power or community', or 'the territory occupied by such a community',[21] 'nation-state' simply describes a society where nation and state exhibit complete congruency. The trend of the emergence and proliferation of the nation-state from the late eighteenth century was coincident with the dawn of the era of Modernity, and as Smith explicates, the modern nation-state did not and could not exist outside the episteme of Modernity because of its reliance upon the 'specifically modern conditions of capitalism, industrialism, bureaucracy, mass communications and secularism'.[22] McCrone et. al. corroborate this connection, albeit in slightly different terms:

[17]Smith believes that, '...nations and nationalisms are inevitable products and producers of modernity.' [SMITH, Anthony D. 'Nations and Nationalism in a Global Era', (Cambridge: Polity Press, 1995), p. 4].

[18]GELLNER, Ernest. 'Nations and Nationalism', (Oxford: Basil Blackwell, 1983), p. 3.

[19]GIDDENS, Anthony. 'A Contemporary Critique of Historical Materialism/Vol. 2. The Nation-State and Violence', (London: Polity Press, 1985), p. 17.

[20]Ibid., p. 17.

[21]HANKS, Patrick, (Ed.), 'Collins Dictionary of the English Language', (London & Glasgow: Collins, 1979), p. 1420.

[22]SMITH, 'Nations and Nationalism in a Global Era', p. 29.

The Western nation-state is seen to represent a specific phenomenon resulting from the convergence of three separate transformations: the creation of the new economic division of labour in the sixteenth and seventeenth centuries (common trading and labour conditions across political territories); the military and administrative centralisation characteristic of eighteenth century absolutism; and the emergence of national educational systems in the early nineteenth century.[23]

From these origins, the nation-state has been at the very centre of debate and conflict over nationalism and national identity, or as Ernest Gellner describes it, 'nationalist sentiment is deeply offended by violations of the nationalist principle of congruence of state and nation'.[24]

Scotland exhibits a unique and hence defining relationship to the nation-state in terms of Gellner's principle of congruency. From the fourteenth century when Scottish independence was gained at the decisive battle of Bannockburn (1314) during the Wars of Independence, until the Union of the Scottish and English parliaments in 1707, the Scottish nation and the Scottish state exhibited complete congruency. Scotland was, therefore, an unusually early example of a nation-state. However, with the amalgamation of the two Parliaments in 1707 and the geographical transferral of power to Westminster, the situation underwent a change. Britain became the state, whilst Scotland through the retention of its own religious, educational, and juridical systems, commonly known as 'The Holy Trinity' of Scottish civil society, remained the nation.[25] Therefore, from this date of Union onwards, the Scottish nation did not have a congruent Scottish state, and it

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[23]McCRONE, David, KENDRICK, Stephen, and STRAW, Pat. 'The Making of Scotland. Nation, Culture and Social Change', (Edinburgh: Edinburgh University Press in conjunction with the British Sociological Association, 1989), p. 34, 35.

[24]GELLNER, 'Nations and Nationalism', p. 134.

[25]By extension, of course, this also meant that although England was the nation, Britain was the state, but this idea of England as a 'stateless nation' had and still has far less potency for several reasons. Firstly, the number of English decreed in the 'Treaty of Union' to sit in the new British Parliament was far greater relative to head of population than the number of Scottish politicians granted this mandate. Articles XXII and XXIII of the Treaty state: '...of the Peers of Scotland at the time of the Union, Sixteen shall...sit and vote in the House of Lords, and Forty-five the Number of the Representatives of Scotland in the House of Commons of the Parliament of Great Britain...', [MOS text], this number being based on the relative wealth of the country. In contrast to these figures, the number of English members was to remain the same as it had been before the Union. Equally important however, was the location of the joint Parliament in London, as this placed England at the geographical and political 'core', thus creating a reduced perception of incongruity.

consequently violated Gellner's nationalist principle of the congruence of state and nation.[26] Foster explains the situation concisely:

> After securing its independence in the fourteenth century, Scotland possessed sovereign statehood for three centuries. Then, in precisely that era when modern industrial society was emerging, the Scottish state, with, it appears, the support of its commercial and merchant elite, abandoned its own independent sovereignty and was politically integrated into another nation-state.[27]

This assertion that the historic and political pattern for Scotland was individual and unique in terms of other Western nation-states is then furthered by Nairn, who agrees that just as many other European nations were striving for political autonomy, Scotland appeared to be content within the British Union: 'For Nairn, the great fact of modern Scottish history is the absence of an authentic nationalism precisely in that period - 1800-1920 - when the other small nations of Europe were struggling for and winning their independence'.[28] Scotland therefore exhibits fundamental disparities when compared with the classic paradigm of the development of the modern nation-state.

In contrast to this anomaly, the emergence of the modern nation-states of New Zealand and Canada was very much in line with the pattern of development of other European and colonial nations, occurring as they did in 1907 and 1867 respectively. The origins of the modern New Zealand nation-state can specifically be traced back to 1840 and the signing of the Treaty of Waitangi.

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[26]In their book, 'The Making of Scotland. Nation, Culture and Social Change', McCrone, Kendrick, and Straw explain, 'Scotland's peculiar constitutional status [at this time]: it is a nation but not a state', [McCRONE, KENDRICK, and STRAW, 'The Making of Scotland. Nation, Culture and Social Change', p. 1], with McCrone coining the term, 'Stateless Nation'. [McCrone, David. 'Understanding Scotland: The Sociology of a Stateless Nation', (London & New York: Routledge, 1992)].

[27]FOSTER, John. 'The Case for Idealism', (London: Routledge & Kegan Paul, 1982), p. 36. A probable reason for this predominantly happy collaboration can be found in the wealth of advantages provided for Scotland by being the second nation of the British Empire. Industry and commerce were vibrant and so, therefore, was the economy. Also, as stated, Scotland still enjoyed many aspects of autonomy. Most notably the 'holy trinity' of the law, education, and the church remained Scottish, and as such many aspects of Scottish life were still directly under the influence of Scots.

[28]BEVERIDGE, Craig, and TURNBULL, Ronald. 'The Eclipse of Scottish Culture', (Edinburgh: Polygon Press, 1989), p. 55.

KO WIKITORIA, te Kuini o Ingarani, i tana
mahara atawai ki nga Rangatira me nga Hapu o Nu-Tirani, i tana
hiahia hoki kia tohungia ki a ratou o ratou rangatiratanga, me to
ratou wenua, a kia mau tonu hoki te Rongo ki a ratou me te ata
noho hoki, kua wakaaro ia he mea tika kia tukua mai tetahi Ranga-
tira hei kai wakarite ki nga Tangata Maori o Nu-Tirani. Kia wa-
kaaetia e nga Rangatira Maori te Kawanatanga o te Kuini, ki nga wahi
katoa o te wenua nei, me nga motu. Na te mea hoki he tokomaha
ke nga tangata o tona iwi kua noho ki tenei wenua, a e haere mai nei.

Na, ko te Kuini e hiahia ana kia wakaritea te Kawanatanga,
kia kaua ai nga kino e puta mai ki te Tangata Maori ki te Pakeha
e noho ture kore ana.

Na, kua pai te Kuini kia tukua ahau, a WIREMU HOPIHONA,
he Kapitana i te Roiara Nawi, hei Kawana mo nga wahi katoa o
Nu-Tirani, e tukua aianei a mua atu ki te Kuini ; e mea atu ana ia
ki nga Rangatira o te Wakaminenga o nga Hapu o Nu-Tirani, me
era Rangatira atu, enei Ture ka korerotia nei :—

Ko te Tuatahi,
Ko nga Rangatira o te Wakaminenga, me nga Rangatira katoa hoki, kihai i uru
ki taua Wakaminenga, ka tuku rawa atu ki te Kuini o Ingarani ake tonu atu te Kawana-
tanga katoa o o ratou wenua.

Ko te Tuarua,
Ko te Kuini o Ingarani ka wakarite ka wakaae ki nga Rangatira, ki nga Hapu,
ki nga Tangata katoa o Nu-Tirani, te tino Rangatiratanga o o ratou wenua, o ratou kainga,
me o ratou taonga katoa. Otiia ko nga Rangatira o te Wakaminenga, me nga Rangatira
katoa atu, ka tuku ki te Kuini te hokonga o era wahi wenua e pai ai te tangata nona te
wenua, ki te ritenga o te utu e wakaritea ai e ratou ko te kai hoko e meatia nei e te Kuini
hei kai hoko mona.

Ko te Tuatoru,
Hei wakaritenga mai hoki tenei mo te wakaaetanga ki te Kawanatanga o te Kuini.
Ka tiakina e te Kuini o Ingarani nga Tangata Maori katoa o Nu-Tirani. Ka tukua ki a
ratou nga tikanga katoa rite tahi ki ana mea ki nga tangata o Ingarani.

(SIGNED)

WILLIAM HOBSON, Consul & Lieutenant-Governor.

Na, ko matou, ko nga Rangatira o te Wakaminenga o nga Hapu o Nu-Tirani, ka
huihui nei ki Waitangi. Ko matou hoki ko nga Rangatira o Nu-Tirani, ka kite nei i te
ritenga o enei kupu, ka tangohia, ka wakaaetia katoatia e matou. Koia ka tohungia ai o
matou ingoa o matou tohu.

Ka meatia tenei ki Waitangi, i te ono o nga ra o Pepuere, i te Tau kotahi mano,
ewaru rau, ewa tekau o to tatou Ariki.

Fig. 8. The Treaty of Waitangi in Maori was first printed on 17 February, 1840, at the Paihia
Mission Press. This is one of several treaty copies, probably of that date, held by the
National Archives.

This was an agreement which in effect passed sovereignty of the islands of New
Zealand to the British Queen, but controversially, even before the concordat had
been fully ratified by all the Maori chiefs, the Governor, Captain Hobson, had
'...proclaimed British sovereignty over the whole country, the North Island on the
ground of cession by the Maoris, the South Island by right of discovery'.[29]
Subsequent to that, 'the colonists received their self-governing constitution, in 1852,
after relatively little opposition; and responsible government, in 1856, with
remarkably few restrictions. Their Parliament even had the power, subject to the
British right of disallowing colonial legislation, to control waste lands and, after
1857, to alter their constitution...'[30]

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[29]SINCLAIR, Keith. 'A History of New Zealand', (Middlesex, England: Penguin Books, 1959,
1985), 8th edition, p. 72.
[30]Ibid., p. 215.

Another key moment on this path to autonomy was the withdrawal of the last imperial troops in 1870, and although this development was unwanted by the colonists, as it left them in sole charge of containing the Maori wars, final subdual of the Maoris occurred later in the same year.
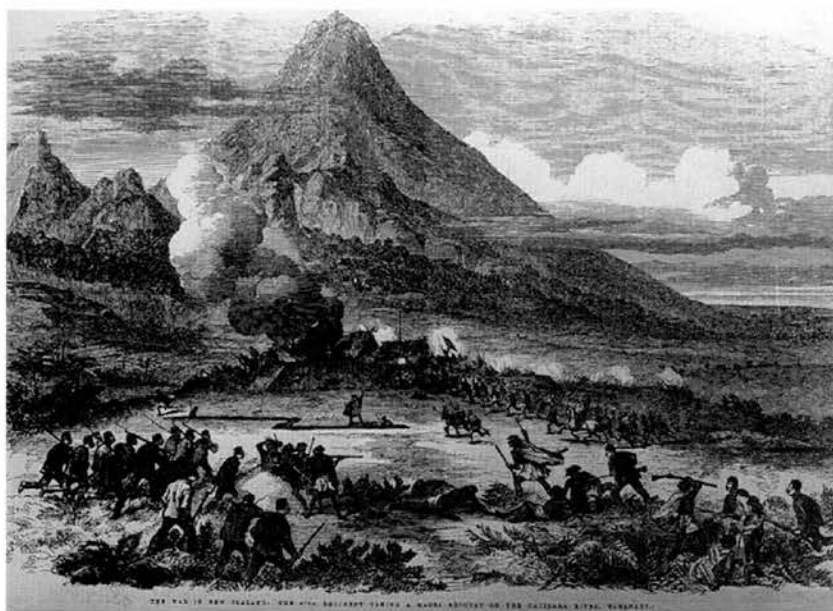
Fig. 9. Cameron's storming of a pā at Katikara, Taranaki, on 4 June, 1863.

Despite these substantial moves towards self-determination however, New Zealand did not become a true nation-state until it gained the status of Dominion at the Colonial Conference of 1907. According to Gellner,

> Most New Zealanders and most citizens of the United Kingdom are so continuous culturally that without any shadow of doubt the two units would have never separated, had they been contiguous geographically. Distance made the effective sovereignty of New Zealand convenient and mandatory, and the separation does not provoke resentment in anyone's breast, notwithstanding the technical violation of the national principle.[31]

Many similarities exist between the formation of the New Zealand nation-state and that of Canada, although the presence of two colonising forces in Canada, in addition to the indigenous ethnies, as well as a powerful southern neighbour, America, served to complicate the situation. Conflict between the British and

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[31]GELLNER, 'Nations and Nationalism', pp. 134, 135.

French colonisers was almost as old as the colonies themselves,[32] but as Saywell explains, 'the final struggle between English and French for the continent really began in 1754 when a young militia colonel, George Washington, led a small force to expel the French from the Ohio Valley and to clear the way for British traders and settlers'.[33] This action resulted in the British capture of Louisbourg in 1758, and Quebec in 1759, and effectively shattered French power in North America. Following the British North American colonies war with America, which ended in 1814 after Napoleon's defeat in Europe, the population of the region of present day Canada soared, naturally and by immigration,[34] from 500,000 to over two million by 1850. Prosperity was threatened when in 1849 the British adopted a policy of free trade, but a global economic resurgence along with the outbreak of the American Civil War in 1857, served to improve the situation. Soon however, as Saywell outlines, 'the tension of the Civil War made the end of reciprocity a certainty,[35] and forced Canadians to search for another solution to their economic problems. Why not follow the American model, many Canadians asked, and try to find strength through a national union?'[36] This did turn out to be the path which was followed, and 'the main impetus for the union of the British North American colonies came from the Canadas'.[37] In 1864, Upper Canada (Ontario), and Lower Canada (Quebec), proposed a federal union between themselves and the Atlantic Provinces, which was ratified later in the year. With the backing of the British Government, New Brunswick was encouraged and Nova Scotia was forced to join this federation, and Saywell charts the subsequent developments: 'In 1867, British Parliament passed the British North America Act, which brought the new nation into existence. But Prince Edward Island remained out until 1873, and Newfoundland only joined in 1949.'[38]

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[32]In 1608 Samuel de Champlain established the first French foothold on the cliff overlooking the St. Lawrence at Quebec City, in what was to become New France.

[33]SAYWELL, John. 'Canada. Pathways to the Present', (Toronto: Stoddart Publishing Co. Limited, 1994), p. 22.

[34]500,000 immigrants arrived during this period, mostly from Britain and Ireland.

[35]This was a reciprocal trading agreement with America.

[36]SAYWELL, 'Canada. Pathways to the Present', p. 31.

[37]Ibid., p. 32.

[38]Ibid., p. 34.

Fig. 10. "The Situation" in the West as a contemporary saw it in 1869.

Although at this time a new objective rationalism infused many aspects of life, largely supplanting the subjective mysticism of the pre-modern episteme, this pre-modern schema did not disappear entirely. Rather, it lingered beyond the period of its dominance providing a dialectical countercurrent to the now mainstream modernist paradigm, and the nationally Romantic impulse of the eighteenth and nineteenth centuries, discussed in the previous chapter, exemplifies this schema's tenacity. Significantly, just such a meeting or juxtaposition of pre-modern and Enlightenment ideas was also played out physically during this period, through the Imperialist process of colonisation in both Canada and New Zealand. The first European arrival to Canada, Jacques Cartier, having been, 'ordered to find gold and a passage to Asia',[39] ventured up the Lawrence River as far as present-day Montreal in 1535.[40]

Fig. 11. This map represents the state of knowledge about Canada soon after the initial voyages by Jacques Cartier to the St. Lawrence between 1534 and 1542.

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[39]Ibid., p. 17.

[40]Cartier called the Lawrence River the 'Rivière du Canada'.

In the early decades of the seventeenth century both the French and the English established permanent colonies in North America, and by 1608, Samuel de Champlain, who founded 'New France',[41] had reputedly established a mutually advantageous trading alliance with the native 'Indians'. Fur traders, explorers, and missionaries all extended the frontiers of the 'new' continent, often exploiting trading opportunities with the indigenous peoples. However, conflict, both random and strategical, inevitably occurred, with the Iroquois Indians allying with the British against the French, who also had 'Indian' allies.

A similar pattern of encounter occurred in New Zealand, where in January of 1840, the first "colony" of New Zealand Company settlers reached Port Nicholson, the original settlement on which Wellington was founded, before Captain Hobson, the British Consul to New Zealand, arrived a few days later at the Bay of Islands from New South Wales. Like previous encounters, for example that with the Dutch East India Company explorer Abel Tasman, this highly symbolic meeting brought together a pre-modern Maori ethnie whose culture and society continued to be dominated by myth, with a newly 'enlightened' western culture structured around the rational, modernist paradigm, and the ramifications of this collision were to be far-reaching.[42]
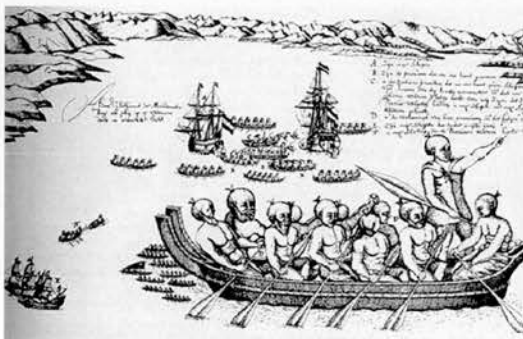
Fig. 12. The violent encounter between Maori in a group of canoes and members of the crew from Tasman's ships, the *Heemskerck* and the *Zeehaen*, drawn by a Dutch artist.
Fig. 13. A missionary distributing bibles to Taranaki Maori.

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[41]This is the area of present day Quebec.

[42]To cite a simple but symbolic example, upon re'discovering' the land in 1769, James Cook named it New Zealand: 'A quiet intrusion into the land's Maori identity, this naming was part of a global mapping that would seriously challenge Maori independence.' [SINCLAIR, 'The Oxford Illustrated History of New Zealand', p. 21].

3.2 Modernity in Contextual Planning

'Improvement makes straight roads; but the crooked roads without
Improvement are roads of Genius.'

Blake.

This chapter, which covers the period from 1707 until 1914, is concerned with the
transition from a pervasive pre-modern society and episteme to the rational and
scientific modern era, and within the MOS this is aptly and amply chronicled in the
'Scotland Transformed' and 'Industry and Empire' exhibitions on levels three, four,
and five.[43]
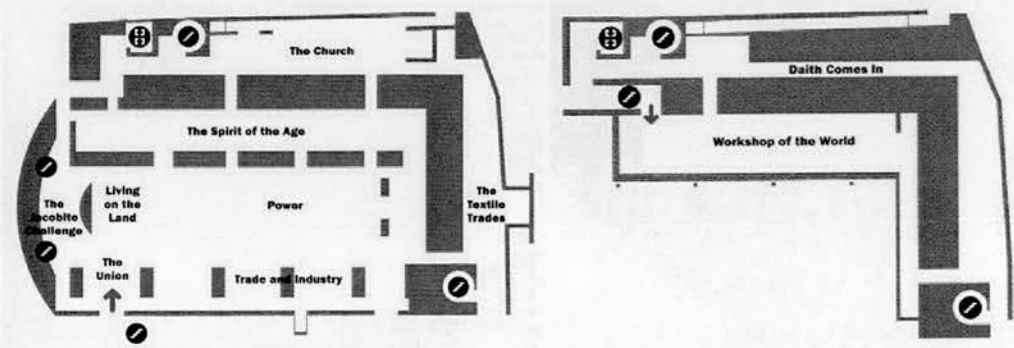
Fig. 14. The 'Scotland Transformed' exhibition area, Level 3.
Fig. 15. The 'Industry and Empire' mezzanine exhibition area, Level 4.
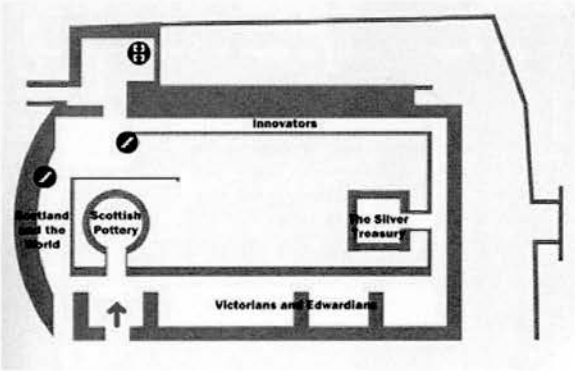
Fig. 16. The 'Industry and Empire' exhibition area, Level 5.

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[43]The comparative size of the display signals the fact that because of both industry and the Empire,
as well as the intellectual Enlightenment, this was Scotland's heyday.

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At Te Papa, this period enjoys similarly comprehensive coverage, although the relevant exhibitions, 'Signs of a Nation', 'Exhibiting Ourselves', 'Golden Days', 'On the Sheep's Back', and 'Passports' begin either with the fundamentally important signing of the Treaty of Waitangi in 1840, or else have the remit of covering the last one hundred and fifty years.
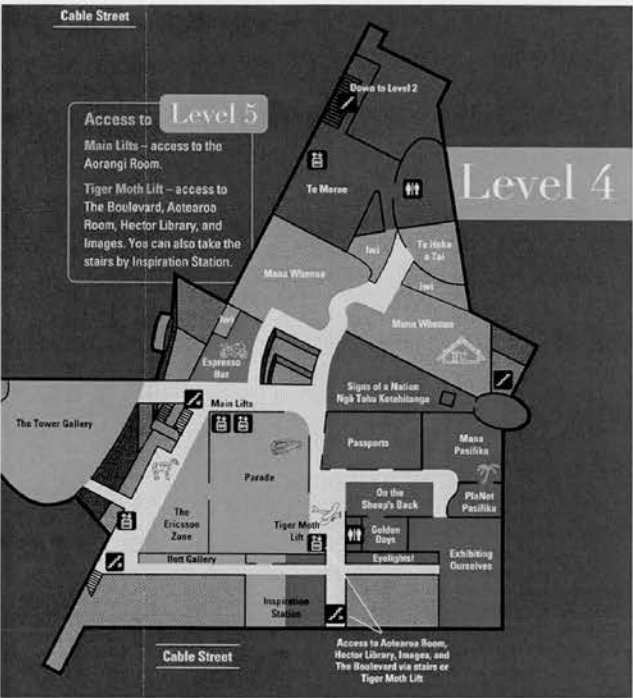
Fig. 17. Plan of Te Papa, Level Four.

The same specific emphasis has not been given to the story of the Canadian colonists at the CMC, with their histories rather forming a part of the larger tableau of the History Hall.
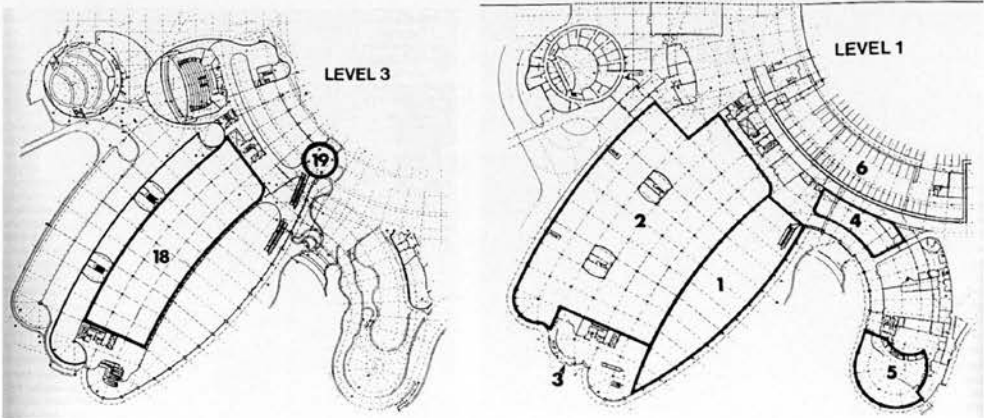
Fig. 18. Plan of the CMC's Level Three, with the History Hall marked 18.
Fig. 19. Plan of the CMC's Level One, with the Grand Hall marked 1.

In the Grand Hall, the curators have chosen to depict native life and culture at this very period of European 'colonisation' or 'invasion', and this will be discussed in section 3.4. As was the case in Chapter Two, this chapter will be structured in three separate sections decreasing in scale from the macro-level of the museums' urban and spatial planning, through their architectural form, to the micro-scale of the individual exhibitions and artefacts themselves, investigating the aspects of Modernity present at each level.

As described in Chapter Two, Benson and Forsyth attempted to reflect the pattern of medieval settlement still present around the edges of the MOS site in the two dimensional design of their building. However, this is not the only contextual reference that the architects have sought to incorporate at plan form. Of the six roads which converge on the western perimeter of the Museum's site, two, namely Chambers Street and George IV Bridge, post-date the medieval period, being a part rather of the substantial, Enlightenment-based city improvement drives of the eighteenth and nineteenth centuries. Significantly, these developments have informed the design of the Museum.

By the turn of the eighteenth century, conditions in Edinburgh were increasingly being compared unfavourably with those in other British and European cities.[44] The 'Old' Town, perched on its volcanic ridge, had notoriously poor access routes and was, moreover, dark, narrow, crowded, and insanitary. By 1759, the North Loch, which had become a deposit for sewage and other waste, was drained, and an ambitious scheme to bridge the resulting hollow was finally completed in 1772.[45]

Fig. 20. Edinburgh from the North Loch, by Slezer.
Fig. 21. Engraving of the New (North) Bridge and part of the Castle.

[44]Indeed, London was often lauded as an example which Edinburgh should follow.
[45]This bridge was constructed to the design of William Mylne, with alterations by John Adam.

This bridge opened up the land to the north of Edinburgh for development, and a design competition for this site was announced in 1766. In April of 1767, it was reported that James Craig was, 'entitled to the primum for the best plan of a New Town in terms of the advertisement in the newspapers for that purpose'.[46]
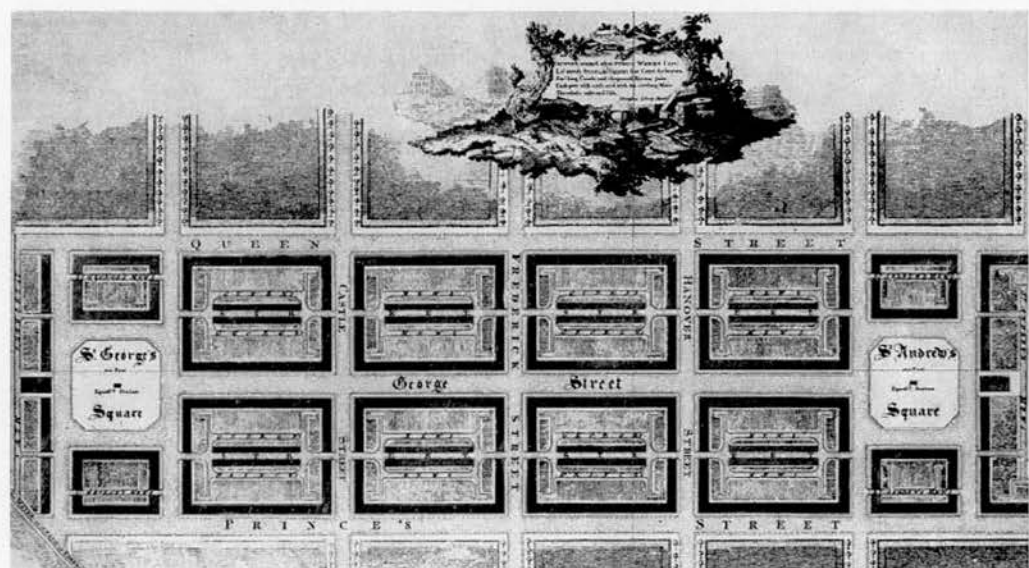
Fig. 22. James Craig's 'Plan' (1767) for the original New Town of Edinburgh.

This scheme of Craig's, with its ordered and symmetrical grid layout, was explicitly located within the new Enlightenment ideology of rationality and progress and was augmented subsequently with a second wave of 'New' Town building. In 1836, Henry Hardy's George IV Bridge was completed after being subject to financial and other difficulties,[47] with Chambers Street being planned and executed as part of the later 1867 and 1871 City Improvements Acts.[48]

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[46]Unreferenced quotation in, DAICHES, 'Edinburgh', p. 122.

[47]DAICHES, 'Edinburgh', p. 198.

[48] This 'seventy-foot wide thousand-foot long' boulevard 'link[ed] the South Bridge and George IV Bridge', and was 'paved with wooden blocks - 322,000 of them - in 1876'. [Ibid.]

Fig. 23. Contemporary view of Chambers Street from the east.
Fig. 24. Contemporary view of George IV Bridge from the north.

Therefore in stark contrast to the 'Old' Town, which appears to have grown organically out of the rock, the thoroughfares of the 'New' Town were imposed onto the landscape, and Walsh propounds that such 'progression through the exploitation of the environment, combined with a faith in humankind's dominant position in the scheme of things, must be central to any appreciation of modernity.'[49]

Considering the MOS's role within this setting recalls the haphazard configuration of medieval Edinburgh's 'Old' Town, as reflected in the casually, even organically irregular appearance of the Museum's facades. In complete contrast to this however, on moving into the interior of the building, it is apparent that the space and construction are in fact strictly ordered around a regular grid system.
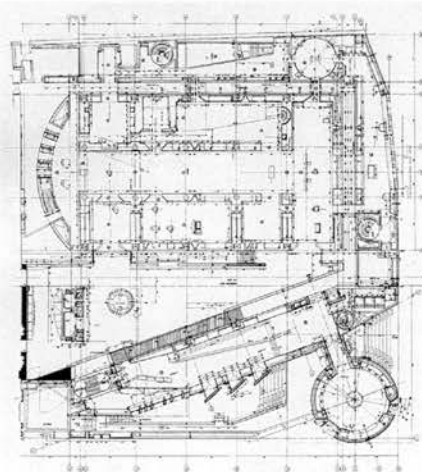
Fig. 25. Ground floor plan of the MOS clearly illustrating the structural grid.

[49]WALSH, Kevin. 'The Representation of the Past. Museums and Heritage in a Post-Modern World', (London & New York: Routledge, 1992), p. 8

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This 7.5 metre squared structural grid, constructed from reinforced concrete columns and beams, is most clearly defined in the main gallery block, which comprises five bays from east to west, and three from north to south.
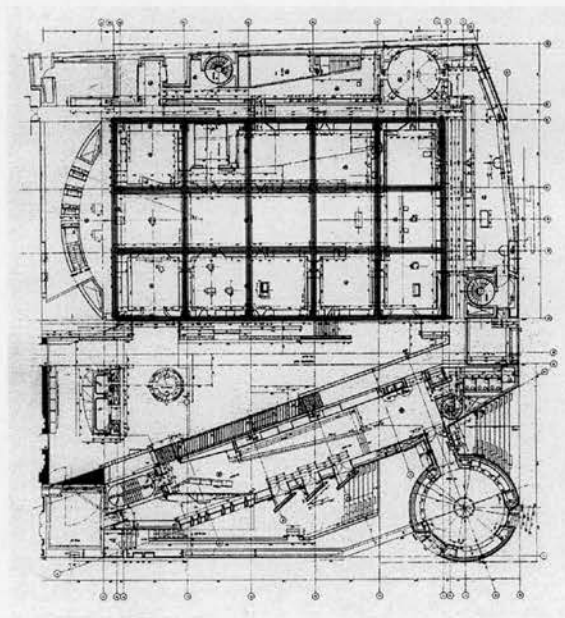
Fig. 26. Bays created by the structural grid at the MOS.

Beyond this, the grid, although not determining the two-dimensional plan, still at times suggests it. Crucially, this orthogonal organisation is intended to be a reduced reflection or embodiment of the new 'enlightened' pattern of urban settlement which so transformed Edinburgh in the eighteenth and nineteenth centuries.[50]

As the architects themselves explain, 'the juxtaposition of the plastic outer wall with the formal geometry and axiality of the main gallery mediates between the Old and New Towns, whose respective characteristics both overlay the site'.[51] The geometricality of the core gallery reflects the regular grid system of the eighteenth and nineteenth century New Town, whilst the free winding nature of the Old Town's roads is represented by the Museum's curvaceous outer wall. This simple physical juxtaposition of curve and straight line draws us back to Adorno's paradoxical notion that myth and enlightenment, whilst being contradictory, are also in fact mutually dependent:

[50] See figure 22.
[51] BENSON, Gordon, "Benson + Forsyth", *Mac Mag*, November 1991, p. 6.

Every spiritual resistance it [enlightenment] encounters serves merely to increase its strength. Which means that enlightenment still recognizes itself even in myths. Whatever myths the resistance may appeal to, by virtue of the very fact that they become arguments in the process of opposition, they acknowledge the principle of dissolvent rationality for which they reproach the Enlightenment. Enlightenment is totalitarian.[52]

The necessity of the grid within the spatial design of the MOS can also be explained in other related, if more practical terms, via 'Information Theory'. This propounds the idea that, 'human and animal visual perception is particularly well adapted to the perception of differences and changes in the environment … Perception tends to focus on the different rather than on the similar, and on the new rather than on the familiar.'[53] In his book, 'The Visual Perception of the Built Environment', Niels Prak expands on this basic knowledge to provide a more complete methodology for the visual decoding of form. He states that information theory depends upon the sending and receiving of messages, which are divided into two discrete parts: 'what cannot be predicted in …. the message is called: *information*; the predictable part is called: the *redundancy*.'[54] Considering redundancy first,[55] several reasons for its familiarity have been deduced by the author, one of which is repetition: 'Repetitive series of equal forms are called rhythms in architecture, just as in music. We can distinguish between three types of rhythms: regular, increasing and irregular ones.'[56] He continues, 'regular rhythms may consist of the repetition of a single element at regular intervals, or of a group of elements; the criterion for regularity is the instant recognition of the group that is repeated.'[57] Such regular rhythms are a form of redundancy owing to their obvious predictability, and the MOS's grid, with its series of fifteen identical squares, is a classic example of such architectural redundancy. Against this backdrop, the architects then juxtaposed visual information in the form

[52]ADORNO, Theodor, and HORKHEIMER, Max. 'Dialectic of Enlightenment', (London & New York: Verso, 1992), third impression, p. 6.

[53]PRAK, Niels L. 'The Visual Perception of the Bult Environment', (Delft: Delft University Press, 1977), pp. 15, 16.

[54]Ibid., p. 16. A simple example of the two working in conjunction is as follows: 'our hometown Main Street is familiar and redundant, but the position and speed of cars on it is 'information'. [PRAK, 'The Visual Perception of the Built Environment', p. 17].

[55]Knowledge and memory are inextricably linked to redundancy. For example, 'well-known classic pieces, such as Handel's 'Watermusic' or Beethoven's Fifth Symphony can be recognised from their opening bars, and are therefore fairly redundant.' [Ibid.]

[56]Ibid., p. 23.

[57]Ibid.

of irregular facades and varied internal spaces, in order to achieve the 'varied ambience within the display areas' and 'variety of scale as well as character in the gallery spaces',[58] called for in the Architectural Competition Brief.
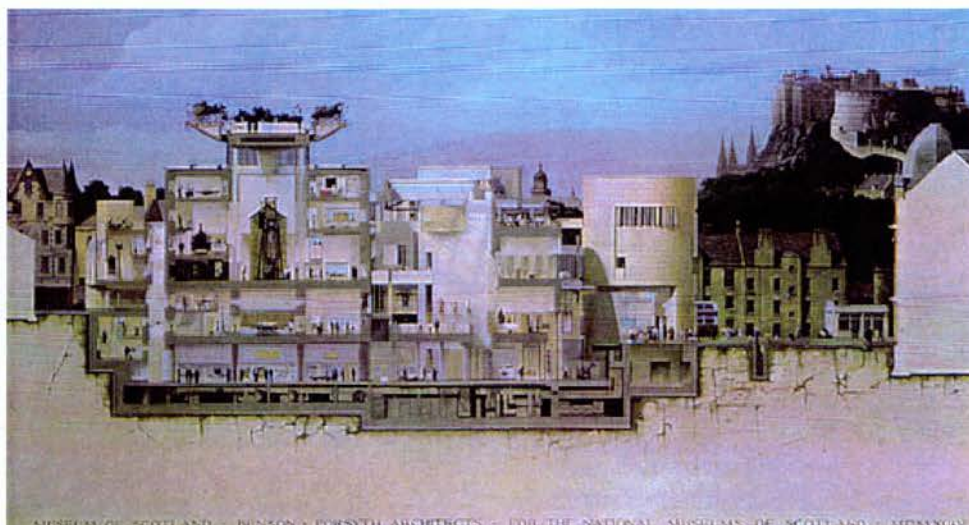
Fig. 27. Cross-section of the MOS, showing the variety of interior spaces.

Therefore, in order to highlight such contrasts, it was essential to have in place a basic default system of uniformity or similitude, and within the Museum building this was provided by the ordering grid system. This mutual dependency is explained as follows by Prak:

> As an information-processing organism the human being is adapted to the perception of differences and changes. But he must be able to perceive a difference *as* a difference, ie. there must be something known to compare it to. Therefore a certain amount of redundancy is a prerequisite. Perceptions without redundancy are just as uninteresting as highly redundant ones (Moles 1971).[59]

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[58] 'Architectural Competition Brief', p. 3.

[59] PRAK, 'The Visual Perception of the Built Environment', p.17. This concept of a default redundancy being necessary for the creation of visual information, variation, or excitement is not a new one, however. In one of the key texts on the sublime from the eighteenth century, 'A Philosophical Enquiry into the Origins of the Sublime and the Beautiful', Burke demonstrated his understanding of the necessity of a certain level of redundancy in order to accentuate the astonishment of the sublime, through his inclusion of the stabilising notions of 'succession and uniformity'. [BURKE, Edmund. 'A Philosophical Enquiry into the Origin of our Ideas of the Sublime and the Beautiful', (London: Routledge & Kegan Paul, 1967, p. 74)]. In so categorising 'succession and uniformity' as causes of the sublime, it is clear that Burke understood the importance of contrasting normality with extremes, redundant elements with informative ones, and irregular rhythm with a certain regularity, in order to create visual information and achieve the surprise of novelty, and thus the sublime.

Returning to the central issue of the reflection of land settlement patterns within the architectural planning of the museums, it is found that Te Papa shares this selfsame organisational device or motif with the MOS. As seen in the previous chapter, the display areas at Te Papa pertaining to Maori art, history, and life are housed in a homogenous block in a roughly triangular wing of the Museum building adjacent to Lambton Harbour.
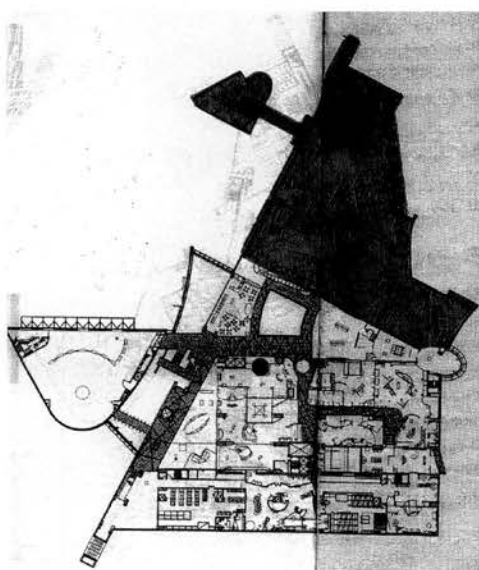
Fig. 28. The Maori wing at Te Papa.

This space houses the Tangata Whenua exhibitions and the marae,[60] and it was research into the latter which helped to generate both the plan of this specific area, and the layout of the Museum more generally. Mike Austin of the JASMAX design team discovered during the course of his investigations, 'a number of underlying preferences which had often informed the siting of marae and wharenui around the country',[61] and these guidelines were then applied to the spatial orientation and design of the Museum. To reiterate here, this resulted in the Maori wing of the Museum being orientated 'towards the most open landscape aspect, towards the rising sun, with enclosure behind'. This was a subtly symbolic representation of Maori culture, deferring to the naturalistic mythology of the pre-modern world. However, the Museum's brief explicitly requested a building to 'powerfully express

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[60]It also incorporates common areas such as circulation space, toilets, and a resource centre.
[61]BOSSLEY, Pete, 'Concepts in Culture', in "The Designing of Te Papa", *Architecture New Zealand*, Special Issue, 1998, p. 18.

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the total culture of New Zealand', and furthermore to represent the 'bicultural nature of the country, recognising the mana and significance of the two mainstreams of tradition and cultural heritage and provide for each to contribute effectively to a statement of the nation's identity'.[62] JASMAX therefore needed to ally this representation of Maori culture with a symbolisation of pakeha society, and in order to achieve this challenging ambition, exactly the same device was used by the New Zealand design team as was employed in the MOS by Benson and Forsyth. Just as Benson and Forsyth had sought to resolve and represent the physical and epistemological juxtaposition characteristic of the MOS site and Edinburgh more widely through reduced reflections of the distinct urban developments, so too had 'the original JASMAX concept group ... finally developed the use of settlement patterns to express the differences between Maori and pakeha'.[63]

Despite being located on the sweeping curve of Port Nicholson Bay thousands of miles away from the European Enlightenment, Wellington grew up in the urban tradition of modernist rationality.

Fig. 29. Map of Port Nicholson.

When officials from the New Zealand Company first arrived in 1839 to choose a site for settlement, another location was selected at the mouth of the Hutt River. When problems arose with this site, however, the company relocated to the city's present

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[62]Ibid., p. 18.
[63]Ibid.

position on the west shore at Lambton Harbour. By 1840, the settlement had been named in honour of the 1st Duke of Wellington, and after becoming a borough in 1842 and a municipality in 1853, the seat of central government was transferred to the city from Auckland in 1865. Throughout this period of civic progress, the city developed around the Enlightenment urban framework of the orthogonal grid, following a plan devised in 1840 by Edward Gibbon Wakefield for the New Zealand Company. This perpendicular network of streets was bounded on the west by the 196 metre peak of Mount Victoria, and on the east by the sea.

Fig. 30. Edward Gibbon Wakefield and the New Zealand Company Town Plan of Wellington, 1840.
Fig. 31. Modern Wellington from the air, showing the urban grid.

Cable Street, the eastern most perimeter of the city's expansion, also forms the western boundary of the Te Papa site, and it is from this facade of the building that the architects developed their reflexive approach.

Fig. 32. Te Papa from across Cable Street.

They used the city's European settlement pattern as a design generator and continued this grid framework, although on a diminished scale, into the built fabric of the Museum.
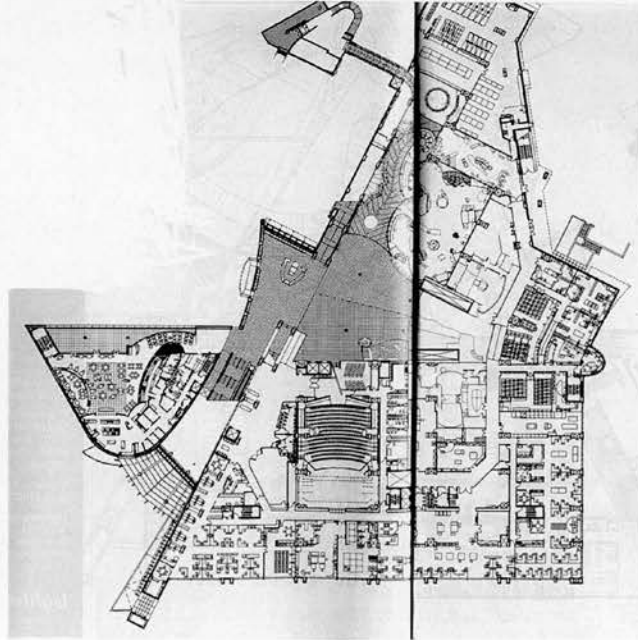
Fig. 33. Plan of Te Papa's Level Four, showing the gridded organisation of the pakeha section.

Appropriately, as Bossley explains, 'the galleries which sat traditionally within the European museum tradition (History, Art, Natural Environment), were oriented within [this] structural grid which responded to the city grid directly behind the site'.[64]. At this point the container was designed to reflect the contained, with the plan of the Tangata Tiriti galleries being influenced and generated by the colonial grid.

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[64]BOSSLEY, 'Concepts in Culture', in "The Designing of Te Papa", *Architecture New Zealand*, p. 18.

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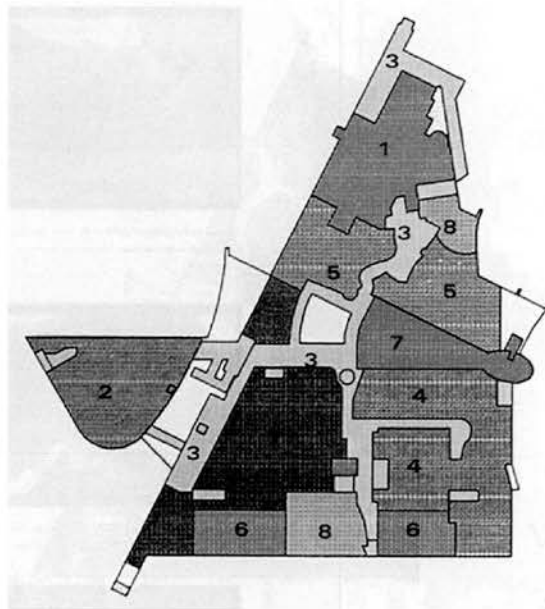
Fig. 34. Schematic plan of Te Papa's galleries, showing the geometric order of the pakeha wing.

Bossley unambiguously describes the relation of this gridded aesthetic to the building's plan, the city, and the wider tradition in the following terms:

> These preferences, which involved orientation towards the most open landscape aspect, towards the rising sun, with enclosure behind, significantly contrasted with the predominant European urban approach where the orthogonal street grid was used to mark and inhabit the land. The grid, redolent as it is with historic and mythic references right back to the determinations of Roman settlements, is clearly apparent in the development of colonial Wellington.[65]

The grid form, which is employed at Te Papa, was ultimately derived from Antiquity. Its importance was re-instated during the Renaissance, most notably through Cartesian perspectivalism, and by the era of rational Modernity, it was one of the principal ordering structures of architectural and wider urban design, as demonstrated by the street pattern of colonial Wellington. Thus, beyond a sensitive local contextualisation, the architects at Te Papa were clearly attempting to locate this wing of their building within a broader rationalist paradigm.

Both 'mainstream' New Zealand identities have been acknowledged or celebrated within the architectural planning of the Museum building, but the most challenging

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[65]Ibid.

and potentially rewarding space is undoubtedly the interface between these two wings. This space is triangular, or wedge-shaped, and was created from the angled slant of the Maori wing in relation to the horizontal, north-south axis of the pakeha wing, which runs parallel to Cable Street.

Fig. 35. Aerial view of Te Papa showing the wedge-shaped interface space.

Bossley from the JASMAX team explains that,

> During development the central space became a Wedge expressing the idea 'to cleave', which means both 'to split' and 'to adhere'. This allowed us to usefully develop the space as sitting between (separating) and also arching over (linking), thereby expressing the shifting nature of the relationship between the two cultures in a process of continual redefinition.[66]

With such a strong architectural meaning or discourse, it was decided that this intermediate space should house the exhibition on the Treaty of Waitangi, and this will be considered in section 3.4:

> Given the notions of uniqueness and similarity suggested by the finalised plan ... , the wedge space was the ideal location for an exhibition about the Treaty of Waitangi (the treaty). The space is central to the plan, mediates between the pakeha and Maori sections of the building, and is approached from the vertical central core space (ihonui) that links all the exhibition floors.[67]

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[66]BOSSLEY, Pete. 'Te Papa. An Architectural Adventure', (Wellington: Te Papa Press, 1998), p. 'the developed concept'.

[67]BOSSLEY, 'The Treaty', in "The Designing of Te Papa", *Architecture New Zealand*, p. 64.

Thus, via their symbolic manipulation of the Museum's plan form, the architects hoped to create a shared space of encounter within the Museum, where comparisons and contrasts could be formed.[68] The design team intended to contain this symbolism in abstract two dimensions, in order to avoid clumsy pastiche:

> At JASMAX, we were determined to ensure that any definition of the bicultural nature of the country would be integral to the building design, rather than a seemingly "carved" addition. We also intended that such reference would be within the larger language and idiom of the building, rather than a potentially patronising enlargement of tradition-looking forms.[69]

The two-dimensional plan design of Te Papa includes conscious echoes of Enlightenment spatial planning, and like the MOS, has been informed by the modernist paradigm. This paradigm has affected the spatial planning of the CMC in very different ways, however: as already established, the epistemological shift to Modernity was coincident with the emergence of the nation-state, and significantly, the CMC's plan was designed with the cultivation and promotion of this national construct in mind.

Firstly, the wish to create a strong and positive image of the modern Canadian nation in the minds Ottawa's residents and visitors alike determined the very site of the Museum, which it was decided should form a part of the national ceremonial route, and more specifically, Confederation Boulevard. This is an avenue which was constructed by the National Capital Commission to incorporate various political, cultural, and diplomatic landmarks into one national promenade, and most significantly includes: the Parliament Buildings; Confederation Square; the Chateau Laurier; the Rideau Locks; the Bytown Museum; industrial heritage complexes on Victoria and Chaudiere Islands; the Supreme Court; the National Library; the National Archives; the National Arts Centre; and the National Gallery of Canada, as well as the CMC.

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[68] As John Hunt explains, the first and most lasting concept forwarded by the design team was that, 'the marae and Maori collection were to be located on this promontory, and its oblique relationship to the gridded spaces of the other galleries (reflecting the European settlement pattern of Wellington) was intended as an acknowledgement of cultural differences.' [HUNT, John, 'Process of Selection', in "The Designing of Te Papa", *Architecture New Zealand*, p. 16].

[69] BOSSLEY, 'Concepts in Culture', in "The Designing of Te Papa", *Architecture New Zealand*, p. 18.

Figure 9
Confederation Boulevard is a
ceremonial route that ties together the
Ottawa and Hull components of the
National Capital. Visitors who follow
its path are introduced to many of the
major monuments - heritage, cultural,
and political - of city and nation. Its
symbolic significance makes it a prime
target-area for the placement of new
cultural institutions, such as CMC and
the National Gallery of Canada.
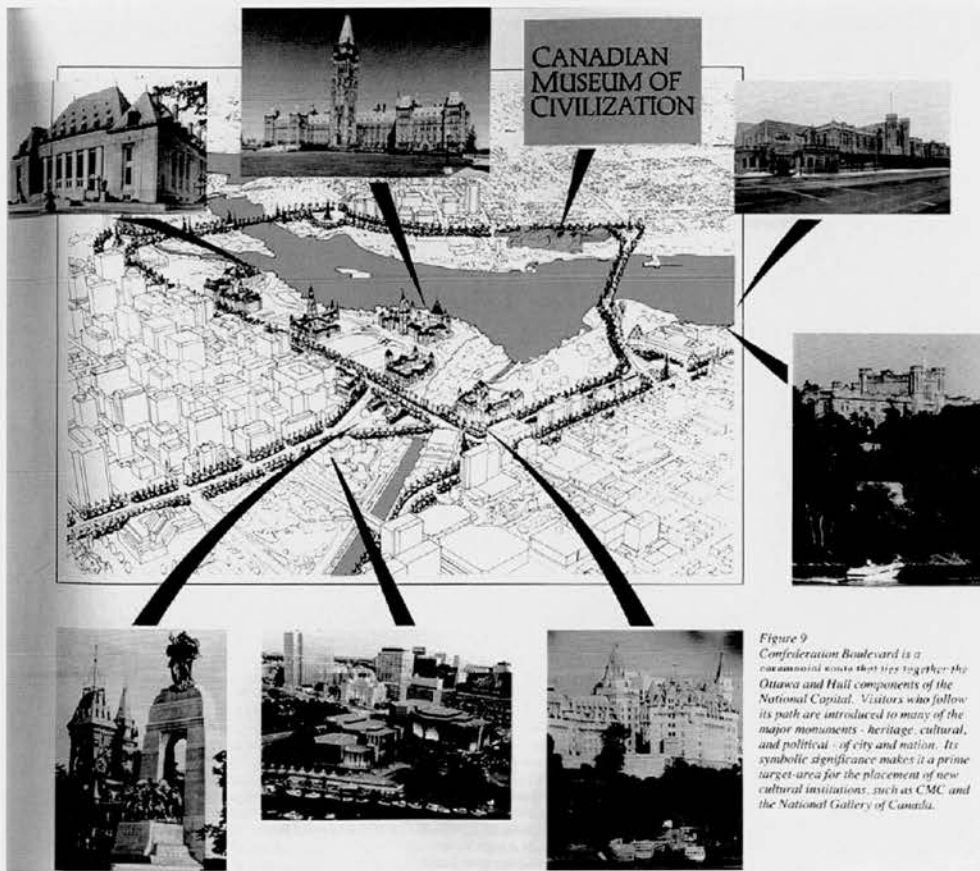
Fig. 36. Ottawa's Confederation Boulevard.

Excepting the last two, these edifices all date from the nineteenth and early twentieth
centuries when the Enlightenment project of Canadian nation building was at its
peak, and taking its place within such a strong chain of national symbols, the CMC
itself becomes a part of this modernist agenda.[70] Confederation Boulevard,
powerfully 'link[s] the principal images every visitor to the capital is likely to retain
of national symbols', and as Macdonald and Alsford extrapolate, 'it is not far-fetched
to compare the Boulevard, with its attached cultural landmarks and attractions, to a
'heritage theme park' whose activities focus on the river'.[71] However, as will be seen
in section 3.3, the CMC is linked to the national Ceremonial Route by more than its

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[70]Indeed, all five short-listed sites for the Museum lay on this route, but the Parc Laurier site was
always favoured because it aided the political agenda to assimilate the working class district of Hull
with Ottawa's affluent and vibrant community across the river. 'A further tactic in helping to tie
Ottawa and Hull together was the development of a ceremonial route, circling the Core Area of the
capital and passing major national institutions.' [MACDONALD and ALSFORD, 'A Museum for the
Global Village', p. 8].

[71]Ibid., p. 10.

location, with a degree of contextualisation and visual referencing being favoured in its architecture.

Although related to the previous point, the second way in which the modernist agenda has influenced the two-dimensional design of the CMC is much more decisive. It was identified in the Architectural Programme Synopsis, that, 'a major attribute of the site is the availability of commanding views towards the Parliament Buildings and the river',[72] and although initially ignored by Cardinal, this association soon became central. As shown in Figure 8 of Chapter One, Cardinal's first design for the Museum comprised one homogenous block, which negated views through to the Parliament Buildings beyond. The scheme was rejected on these grounds. This led the architect to separate the curatorial and exhibition accommodation, admitting fine views between these two wings and across the Ottawa River to the nation's Parliament, as iconised on the national one dollar bill.

Fig. 37. The well-known view of Parliament Hill from the CMC on the back of the one dollar bill.

Beyond this obvious visual alignment, the Parliament Buildings were also used at a more detailed and integral level as a crucial focus in the planning of the CMC. As Macdonald and Alsford explain,

> CMC's major exterior axis parallels that of the Grand Hall, and aligns the centre of the entrance plaza with the Peace Tower - a happy opportunity for photographers. Crossing the interior and exterior axes is the circular axis: the

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[72]ARCHITECTURE AND PLANNING GROUP & NATIONAL MUSEUMS OF CANADA. 'National Museum of Man. Architectural Programme. Synopsis', (Ottawa: National Museums of Canada, 1983), p. 17.

ceremonial route; the intersection of the exterior axis and this ring provides a compass point which defines the entrance plaza.[73]

Fig. 38. The CMC is linked with Canada's political centre - the Parliament Buildings - by view-lines which have a ritual symbolism.

An axis exterior to, although exactly parallel with, the Grand Hall's line of symmetry, precisely connects the midway point between the Museum's two wings to the Parliament's prominent Peace Tower. This ritual symbolism physically and metaphorically aligns the CMC with one of the most potent images of the Canadian nation-state, and thus consciously affirms and draws on the tradition of Modernity.

3.3   Modernity in Architectural Form

The pre-modern era was characterised by complexity and confusion, but with the coming of architectural modernism, simplification and clarification prevailed. With regard to the specific case studies and firstly Benson and Forsyth's design for the MOS, it can be seen that it is fundamentally reducible to simple constitutive

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[73]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 26.

elements. In stripping away the various layers of the Museum's ground floor plan, it quickly becomes apparent that the design simply consists of three basic geometric shapes: a rectangle; triangle; and circle.[74] Building this abstract arrangement up into the three-dimensional whole, reveals: the Hawthornden orientation court, a triangular prism; the core gallery space, a cuboid; and the entrance tower, a cylinder.
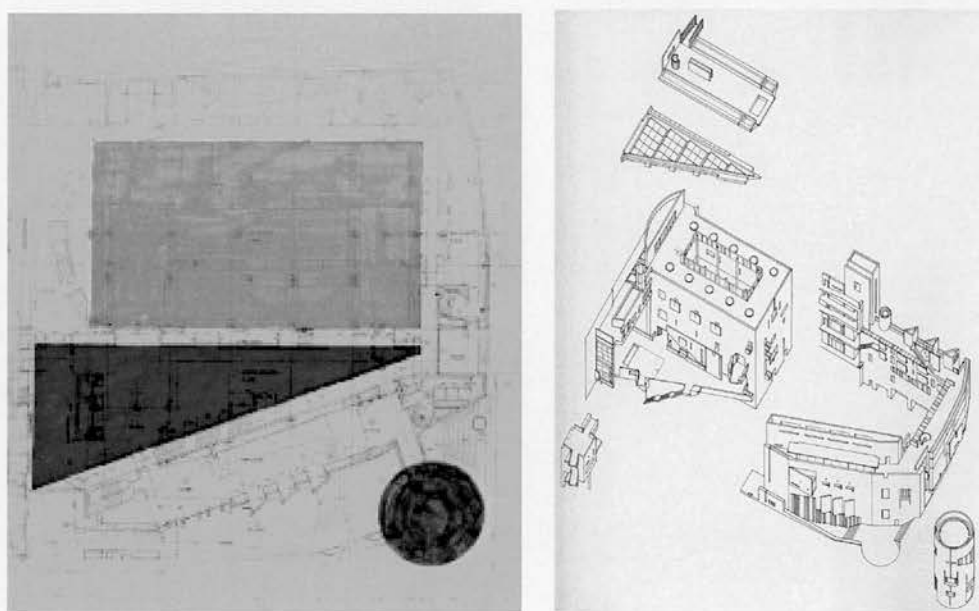
Fig. 39. Simple geometric shapes constituting the plan of the MOS.
Fig. 40. Exploded axonometric of the MOS, showing its basic geometric forms.

Repeating this process with the Te Papa plans reveals an analogous if slightly less obvious result. The overall form of the building approximates to a right-angled triangle,[75] which can then be deconstructed to reveal a gridded quadrangle, an acute-angled triangle, and a right-angled triangle.

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74 See section 2.3.
75 See figure 35, page 208.
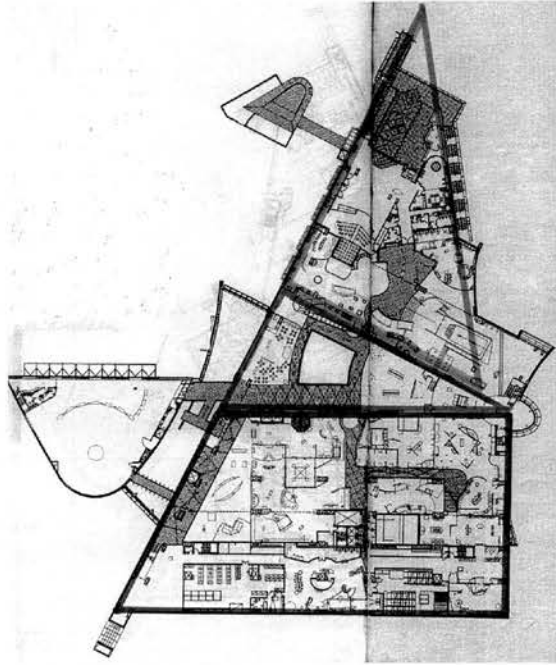
Fig. 41. Figure demonstrating the basic geometricality of Te Papa's plan.

In the Museum's resultant three-dimensional form, these planes relate to the pakeha wing, the wedge-shaped space containing the Treaty of Waitangi exhibit, and the Maori wing respectively.[76]

Thus, simple geometricality is an inherent facet of both of these buildings. Significantly, such Euclidean solids as are used in the two museums, were the fundamental building blocks of Classical architecture, and this aesthetic has evolved and re-emerged intermittently throughout history. Of course, Classical values and aesthetics underwent a 'rebirth' with the Renaissance, providing a bridge to the rational era of Modernity, and this tradition was perpetuated into the twentieth century by architectural modernism, to be discussed further in Chapter Four. The following sketch by Le Corbusier, which was published in his 'Vers une Architecture', poignantly illustrates this aesthetic lineage. Above the free-hand sketch showing ancient Rome: the Pantheon; the Colosseum; and the Pyramid of Cestius, Le Corbusier presents a row of primary Platonic solids (cylinder, pyramid,

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[76]The CMC's form cannot be deconstructed in this way, as it is highly irregular and organic, having been randomly computer-generated. This distances it from the ordered geometricality of Modernity, but as will be seen in the next chapter, allies it with the technology (and machine aesthetic) of the modern movement in architecture.

cube, cuboid, and sphere) clearly demonstrating this affinity between the Classical aesthetic and simple, abstracted geometry.
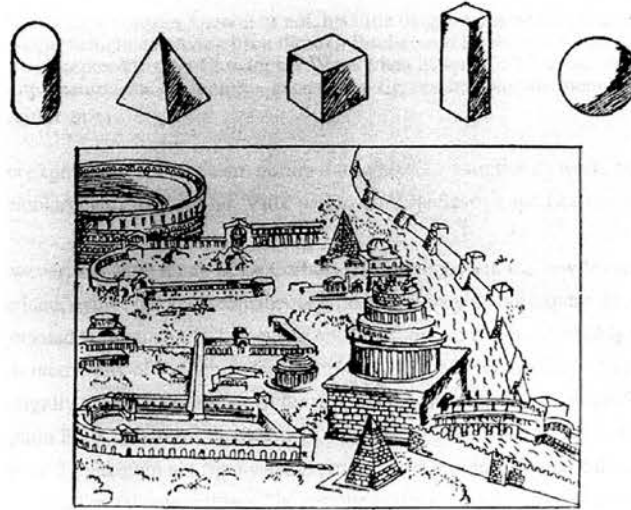
Fig. 42. Sketch by Le Corbusier from 'Vers une Architecture'.

Whether Le Corbusier knew it or not, his little diagram placed him in a grand vista of Classical thought extending back through Boullee and Ledoux to Alberti and Palladio, and well represented by Christopher Wren when he wrote: 'There are two causes of beauty - natural and customary - geometrical figures are naturally more beautiful than irregular ones...'[77]

Intriguingly, Benson and Forsyth's MOS may also lay claim to a place in this 'grand vista of Classical thought', as its round tower, in addition to evoking the fortified architecture of the medieval age, also creates a direct link with the classically-inspired David Hume monument in nearby Calton Burial Ground. As Macmillan explains:

> ...the last time such a free-standing cylinder was used by an architect in Edinburgh with such stark and dramatic simplicity, it was by Robert Adam in the tomb he designed for David Hume in the Calton Cemetery. So the tower invokes the Enlightenment as well as the castle tradition which Adam too was fascinated by.[78]

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[77]CURTIS, William J.R. 'Le Corbusier. Ideas and Forms', (Oxford: Phaidon, 1986), p. 53. See section 4.1 for a continuation of this discussion.

[78] MACMILLAN, in Benson and Forsyth, 'Museum of Scotland', p. 113.

Another example of simplification and clarification of form within the contemporary museums is the structural grid, which, as already explained, is present in both the MOS and Te Papa. This grid structure has a strong association with the modernist paradigm, as according to Jay, it formed the basis of '...what many have called the hegemonic scopic regime of the modern era, Cartesian perspectivalism...'[79] It was an intrinsic aspect of Descartes' aesthetic and philosophical system and was therefore a primary construct of the modern schema. The camera obscura was the emblematic visual apparatus of Cartesian perspectivalism,[80] and coincidentally and unwittingly this effect of camera obscura is achieved in the MOS, as Benson himself explained,[81] by small windows unexpectedly acting as pinhole cameras and producing images of the McEwan Hall on the opposite wall.

Fig. 43. Images of the McEwan Hall projected onto a wall in the MOS by windows acting as pinhole cameras.

All three museum buildings are also within the rationalist paradigm, as they enable strict control of the buildings' services, which in turn rely on those fundamental

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[79]JAY, Martin. 'Downcast Eyes. The Denigration of Vision in Twentieth-Century French Thought', (Berkeley & Los Angeles: University of California Press, 1994), p. 113.

[80]See JAY, 'Downcast Eyes', p. 69, and CRARY, Jonathan. 'Techniques of the Observer: On Vision and Modernity in the Nineteenth Century', (Cambridge, Mass. & London, England: Mit Press, 1990), chapter 2.

[81]The Robert Gordon University Heritage Convention.

characteristics of Modernity: objective analysis and reductionism. This is clearly demonstrated in the MOS's environmental control, which maintains the ambient temperature within plus or minus 2°C of 18°C, and the relative humidity within the band from 45% to 55%. Air filtration was stipulated to be between 1 and 2 microns, and with regard to gaseous pollution, the reduction of sulphurous gases, ozone, and nitrogen dioxide by activated carbon filtration was specified. The whole atmosphere is therefore repeatedly sub-divided, in order to allow objective analysis and hence complete control, which is achieved through detailed architectural and service design.

In these respects, the architectural forms and services of the museums adhere to some of the principal characteristics of the modern schema. However, this discussion becomes more interesting when one considers also the historical context of this new era of Modernity, with all its national, political, social, and cultural implications.

It has been demonstrated that the advent of the nation-state was a direct, if not inevitable, result of the new rationality of the later eighteenth and nineteenth centuries, and the emergence of the 'modern' museum at this time was no coincidence. As explained in the thesis' Introduction, the museum was an ideal and influential forum from which to validate and promote the nation-state, and just as in the previous chapter many Romantic representations of the pre-modern nation were discovered within the fabric of the museums, so there is a corresponding promotion of the modern nation-state. A clear example of this occurs at the CMC, in the use of copper cladding on the three barrel-vaulted roofs of the Exhibition wing.
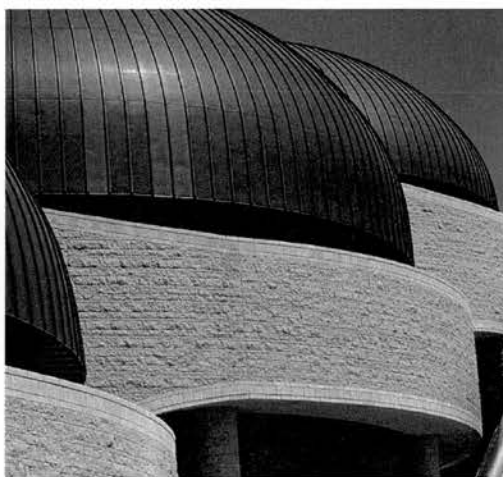
Fig. 44. Copper clad roofs at the CMC.

Although a copper-brown colour at the moment, given sufficient weathering these panels will turn green, reflecting the emerald roofs of the Parliament buildings.

Fig. 45. Weathered green copper roof of the Parliament Buildings.

By forging this strong visual connection with the Parliament, the architect intended to create a deeper, symbolic link. The Parliament Buildings are the ultimate symbol of Canada's great nineteenth century 'nation-building' project, and although constructed a century later, the CMC is a continuation of that project and may well become a key visual icon of Canadian identity far into the twenty first century.[82]

Modernity also informs the architectural fabric of the MOS in subtly powerful ways, such as in the symbolic representation of progress. The southern, third floor section

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[82]The maple leaf flag has also become a key visual icon of Canadian identity.

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of the 'Scotland Transformed' core gallery houses the 'Spirit of the Age' display, which charts Scotland's intellectual Enlightenment. From here a staircase leads up to the mezzanine level above, where the display, the 'Workshop of the World', focuses on the practical, industrial results of this intellectual shift. As the steps rise to this floor, relative darkness is replaced by a flood of light breaking in from the glazed roof, and this physical casting of light is intended to be analogous to the 'light of knowledge' brought by Scotland's Enlightenment intellectuals, the practical results of which transformed people's lives. Equally, the Museum's overall spatial organisation was also designed to encapsulate this notional progression, beginning as it does in the more dimly lit underground spaces, and rising up through the building to the climaxes of the brightly lit central core gallery and the open-air roof terrace. This ascent from below the ground, up to and through the roof to the sky, is intentionally analogous with the modernist perspective of man's ascent and advancement through the ages to the present day, and onwards into the future. This physical symbolism is the clearest indication of the architects' and curators' belief in progress, so central to the Enlightenment project, and in echoing the development of its contents, the building may at some level be seen as 'a metaphor for the passing of time'.[83]

Another related interpretation of Modernity is evident in the *interior* core gallery space of the MOS. This capacious hall houses galleries on three of its sides and rises to a dramatic height, and through this sheer volume alone is reminiscent of one of the archetypal architectural forms of the modern age, which was generated in response to the Industrial Revolution: the industrial machine hall or factory building.

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[83]McKEAN, Charles. 'The Making of the Museum of Scotland. Draft Text', p. 5.9.
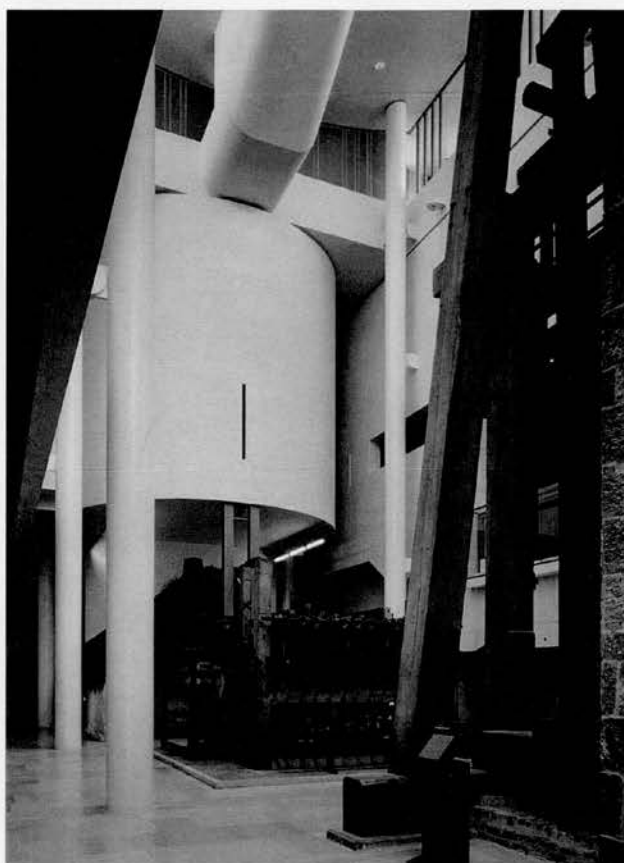
Fig. 46. The large volume of the MOS's core gallery.

Significantly, other features and details serve to enhance this architectural analogy.
Most obviously, the Museum's hall was designed to house large industrial machinery
and equipment, such as the freestanding Corliss engine and the Newcomen
atmospheric engine,[84] and this links it functionally to the industrial machine halls of
the Victorian era.

[84]The Corliss engine once powered a small weaving mill in Alva, Clackmannanshire, and the
Newcomen atmosperic engine was used to pump water from coal mines near Kilmarnock, Ayrshire.

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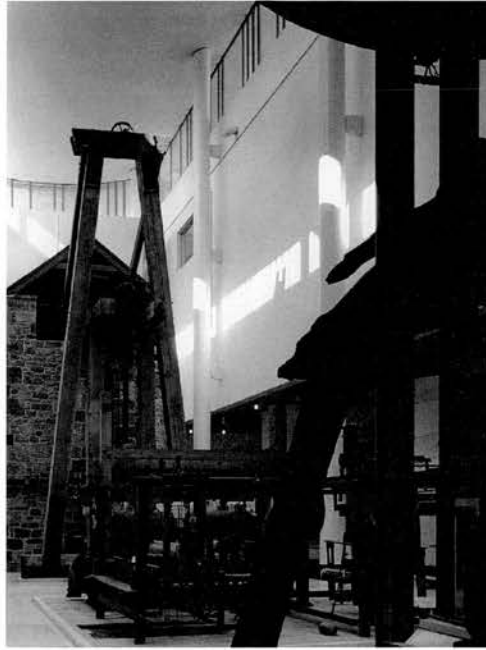
Fig. 47. The Newcomen engine, in the MOS's core gallery 'Scotland Transformed' exhibition area.

Furthermore, the presence of these outsize artefacts in the Museum recreates some of the same design problems that the earlier industrial architects faced when attempting to house the new operations of large-scale manufacture and transportation, and interestingly has produced similar solutions. In order to accommodate such exhibits in the Museum, the hall required a large, free-spanning space, and this was achieved by incorporating a row of reinforced concrete columns down either side of the Hall's length, and springing the roof from these supports. This construction technique has its origins in the discovery of the steel manufacturing process, which revolutionised the building industry as it allowed walls to be freed from their load-bearing role, and enabled large, clear-span spaces to be roofed.[85] As Macmillan observes, an echo of this industrial past is detectable in the open mezzanine above the core gallery's balcony: 'Built in steel, its structure is a private homage from the architects to Scotland's industrial past'.[86]

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[85]Early examples of this form of construction include railway stations, such as London's St. Pancras, and structures such as the Palm House at Kew Gardens and Paxton's Crystal Palace, which was built in Kensington for the Great Exhibition of 1851.

[86]MACMILLAN, in Benson and Forsyth, 'Museum of Scotland', p. 118.

Fig. 48. Steel mezzanine level off the MOS's core gallery.

Appropriately, industrial museums of the later nineteenth century, including the RMS, adopted this architectural form, and so in many ways the MOS's core gallery can be seen as a reflection of the main hall of the Royal Museum of Scotland adjacent to it. Although already conspicuous, Benson and Forsyth strengthened this machine hall allusion even further with the addition of hinge-shaped decorations on the hall's columns.
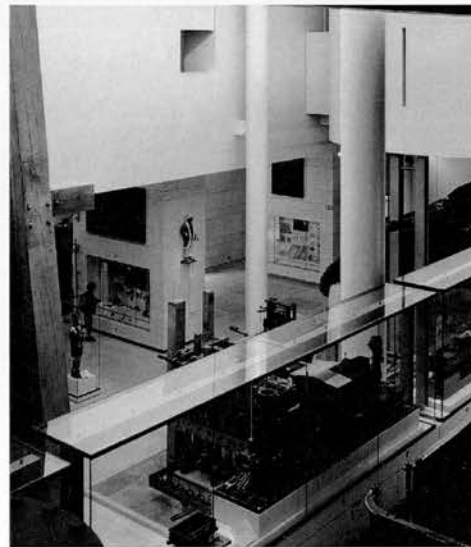
Fig. 49. A hinge detail is observable here in the core gallery between the narrower column and the upper part of the wall.

Until the early twentieth century, as Windsor explains:

> ... these hinges or bearing surfaces were believed to be necessary ..., so that the whole structure might change shape slightly with the expansion and

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contraction of the component parts when they were exposed to changes of temperature. A famous precedent for a great building of this type was the gigantic *Halle aux Machines* in Paris, constructed for the Exhibition of 1889.[87]

However, the most celebrated use of such hinge joints was undoubtedly in the Turbine Hall at Moabit, Berlin, which Peter Behrens designed for the AEG in 1909.

Fig. 50. Dutert and Contamin: Halle des Machines, Paris International Exhibition, 1889.
Fig. 51. Turbine factory, Huttenstrasse, Berlin, 1909, by Behrens.

Progress and industrialisation certainly provided inspiration for Benson and Forsyth at the MOS, but the architecture of all three museums exhibits traces of another key aspect of Modernity: the desire for social control. As the nation-state became the dominant political and societal model, power was centralised and increasingly the old 'laissez faire' politics were replaced with a new and strident interventionism. This extended into many aspects of life, and the museum was certainly not immune. Contemporary critics, however, warn against seeing the history of the museum as simply a means of social control, but within the modern era this was undoubtedly a valid and consequential factor. Indeed, within the MOS's predecessor, the Royal Scottish Museum, social control proved to be a significant problem right up until the Second World War, and as such it is not an issue which can be ignored. A dialectic of consent versus control runs through the critical histories, with Gramsci advocating the former and Foucault explicating the latter, and these two views will be considered in connection with the problems faced by the Royal Scottish Museum, and the forms of the three contemporary museums.

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[87]WINDSOR, Alan. 'Peter Behrens: Architect and Designer', (London: Architectural Press, 1981), p. 89.

Looking back for a moment to the inception of the modern museum, it is certain that during the late eighteenth and nineteenth centuries, a middle and upper class fear of the mob was prevalent. Amusement parks, fairgrounds, and public houses witnessed the unruly behaviour of the working classes, and an apprehension that this disorder would flood into the newly public museum institutions was rife, and not unjustified. For Foucault, the development and expansion of the prison system had as its principal aim the private correction of the offender, rather than the previously paramount spectacle of public punishment. As such, a major device for maintaining public law and order, namely the 'spectacle', had been lost, and Foucault believes that this was replaced in the museum in particular, although also in the library, public park, reading room, and department store, by 'surveillance'. In the words of Bennett, 'as punishment was withdrawn from the public scene, it was increasingly the museum that was conceived as the primary instrument of civic education.'[88]

This surveillance took two forms: 'control' from authorised museum staff paid to ensure security and maintain order; and 'consent' from the public itself. Initially many museums enforced propriety by establishing certain entry restrictions, with signs reading 'no swearing, no spitting, no brawling, no eating or drinking, no dirty footwear etc....',[89] being displayed at the door, but this approach was slowly phased out when museum authorities became more confident in the 'eye of power'.[90]

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[88]BENNETT, Tony. 'The Birth of the Museum. History, Theory, Politics', (London & New York: Routledge, 1995), p. 101.

[89]Ibid., p.27.

[90]FOUCAULT, Michel, "The Eye of Power", in 'Power/Knowledge: Selected Interview and Other Writings, 1972-1977', (New York: Pantheon Books, 1980).
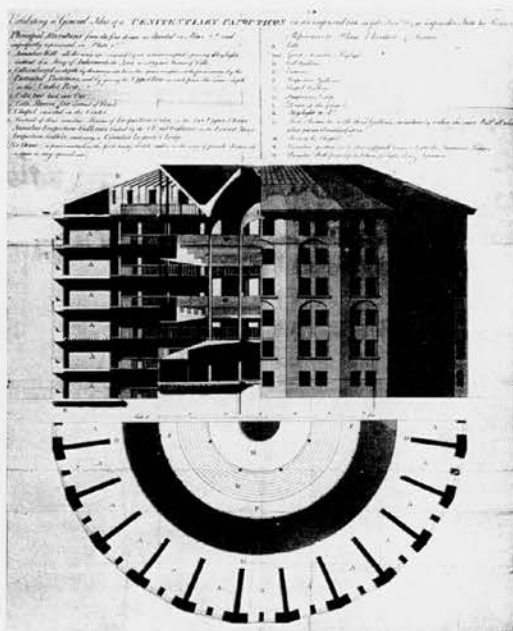
Fig. 52. The 'Penitentiary Panopticon', Jeremy Bentham, Samuel Bentham, and Willey Reveley, 1791.
Fig. 53. Project for Edinburgh Bridewell, Robert Adam, 1790.
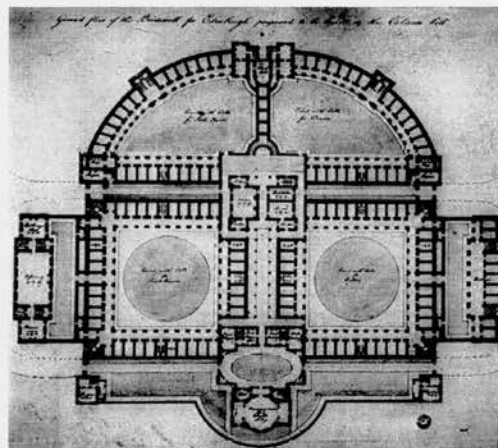
The architecture of the panopticon was transposed onto the museum typology, as is clearly evinced by the central hall of the Royal Scottish Museum, this huge open space, with open galleries around three of its sides, providing the ideal form for the effective monitoring and stewardship of the Museum's visitors. This idea relates directly to the notion of control described by Foucault and was widely employed within the Royal Scottish Museum, as described by the then Director, Alex Curle, in the Annual Report for 1929:

> The behaviour of the crowds on these occasions is uniformly good, but any attempt at rowdiness on the part of young people is promptly dealt with. Notwithstanding the difficulty of supervising closely so large a number of visitors, it is very gratifying to note that damage to fittings, or interference with specimens, is of the rarest occurrence. In these respects, the behaviour of the public has improved much in recent years.[91]

Noteworthy here is the fact that this 'panopticon' form, originally employed as a tool of social control, is still evident in all three of the contemporary case study museums. At Te Papa for instance, 'the core, a dramatic space the full height of the museum, allows visitors to see all floors from the Wellington Foyer (Orientation

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[91]CURLE, Alex O. 'Report for the Year 1929 on the Royal Scottish Museum', (Edinburgh: Royal Scottish Museum, 1929).

Lobby), and was conceived as a unique space for changing exhibitions exploring New Zealand's environmental and cultural identity'.[92]
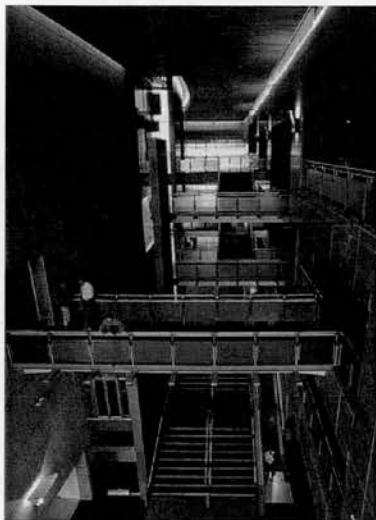
Fig. 54. Entranceway at Te Papa looking towards the Wellington Lobby.
Fig. 55. A gathering in the Wellington Lobby.

At the CMC, the equivalent 'panopticon' space is reached through the Laurier Street entrance where, as Macdonald and Alsford describe, 'the visitor is almost immediately confronted by a view down into a breath-taking space: the Grand Hall',[93] with the main lobby space stretching out at right angles to this at street level along the length of the History Hall.

Fig. 56. Main entrance hall at the CMC.

[92]GORBEY, Ken, 'Design Definitions', in "The Designing of Te Papa", *Architecture New Zealand*, p. 20.
[93] MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 96.

These spaces at the CMC are mirrored by the Core Gallery and the Hawthornden Court respectively in the MOS, the only difference being that in this case these two principal spaces are not contiguous, but independent.

This large, visually uninterrupted space or 'panopticon', which was initially employed in the museum as a means of surveillance, has survived to the present day, but has its purpose remained the same? Paradoxically, observation has remained at the functional heart of these spaces, but in an inverted way. Rather than assuming the primary purpose of enabling the observation of visitors by a controlling authority, the spaces have been incorporated in order to allow visitors to orientate themselves within the Museum as a whole, and make informed choices with regards to circulation routes. For instance, at the CMC, 'its [the Grand Hall's] views to the outside will help visitors orient themselves within the building, while its natural light, contrasting with the artificial and generally lower-level lighting in the exhibition galleries, will help relieve 'museum fatigue".[94] Touched upon here by Macdonald and Alsford, additional benefits also derive from these spaces. The admittance of natural light into all of the aforementioned orientation 'cores' creates a strong connection between the museum and the world outside, and thus contextualises the visitor's experience, investing it with an essential relevance. Concomitantly, '...the way natural light has been introduced in rest areas, lobbies, and other places where artifacts are not threatened; ... provides psychological relief from the controlled-light areas of exhibitions and capitalizes on the superb local views'.[95] In addition, the magnificent 'cathedral like' spaces enhance the grandeur and resonance of the entire museum institutions, and more practically, these '... large assembly areas allow hundreds of visitors to group at one time'.[96] The focus of these panoptic vestibules has therefore shifted, substantially transferring 'the eye of power' from the museum authorities to its visitors, but the presence of security guards, ticket officers, and CCTV within such entry spaces still echoes this former preoccupation with social control.

Closely connected to this idea of surveillance and visitor orientation through the use of the panopticon form, is the notion of the architectural promenade. Indeed, Gorbey

[94]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 78.
[95]Ibid., p. 26.
[96]Ibid.

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identifies 'two major internal features' essential for 'the orientation of the visitor's journey through the museum', as being, 'the core and the promenade'.[97] Prior to the Enlightenment, museums were generally eclectic and chaotic, and were certainly not intended to be viewed or toured in any particular way. With the coming of the rational modern age however, a new type of museum exhibition developed in line with the contemporary desire to order and manipulate artefacts in space, and to control the movement and behaviour of the visiting public. In this new approach, a defined journey or narrative through space was established, and the museum goer was led around the exposition in a prescribed, engineered way, therefore ensuring a controlled and uniform experience. In some nineteenth century museums such routes were strictly enforced by curators and tour guides with no lingering or back-tracking being permitted, and although of course much more loosely utilised today, the architectural promenade is still a key component of all three of the casestudy museums. For instance, Benson and Forsyth approached the MOS project with the belief that, 'any museum should have a logical circular journey. There should be a legibility in how you experience a museum and in the sequence of its major components. Spatial hierarchy is essential to avoid endless museumitis.'[98] Unlike at the adjacent Royal Museum of Scotland, the architects chose to structure this 'circular journey' vertically, following the chronological ordering of exhibits from the oldest artefacts housed in the basement, to the newest in the Level 6 'Twentieth Century' gallery. The variety and complexity of the Museum's spatial sequence or hierarchy however, whilst creating many engaging and dramatic spaces, has largely obscured the flow and coherence of this architectural promenade.[99] Disorientation and frustration are the inevitable results. In contrast to this, visitor circulation at the CMC was more successful in its remit to 'accommodate large numbers of visitors circulating at their own speeds, without congestion or overcrowding at any point. The circulation route was to permit visitors to avoid travelling through exhibitions of

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[97]GORBEY, 'Design Definitions', in "The Designing of Te Papa", *Architecture New Zealand*, p. 20.

[98]Benson and Forsyth quoted in McKEAN, 'The Making of the Museum of Scotland. Draft Text', p. 5.9. Rather paradoxically however, Benson and Forsyth rejected the 'spatial hierarchy' of the RMS's main hall as advocated in the competition brief: 'The Main Hall is a space of very high quality which the Trustees consider should continue to provide the central focus for visitors to the whole complex', [Architectural Competition Brief, p. 3], choosing rather to create an entirely separate entrance for the MOS. However, although this principal space was in some ways weakened by the new entrance, the architects as we have seen, sought to incorporate and defer to it by aligning its axis with the main axis of the new Museum. Thus the import of this Main Hall was recognised, excentuated, and resolved by the new design, as 'internally, the entrance to the new museum is on the main axis of Fowke's magnificent luminous hall.' [BENSON, "Benson + Forsyth", *Mac Mag*, Nov. 1991, p. 6.]

[99] See figure 27, page 201.

no interest to them or retracing their steps to re-enter central areas'.[100] The relative success of the CMC's promenade however, might reasonably be attributed to the various cavernous spaces, rather than to any sophisticated or integrated solution to the challenge. Undoubtedly the most comprehensive and thoughtful approach to the architectural promenade has been made by JASMAX at Te Papa.
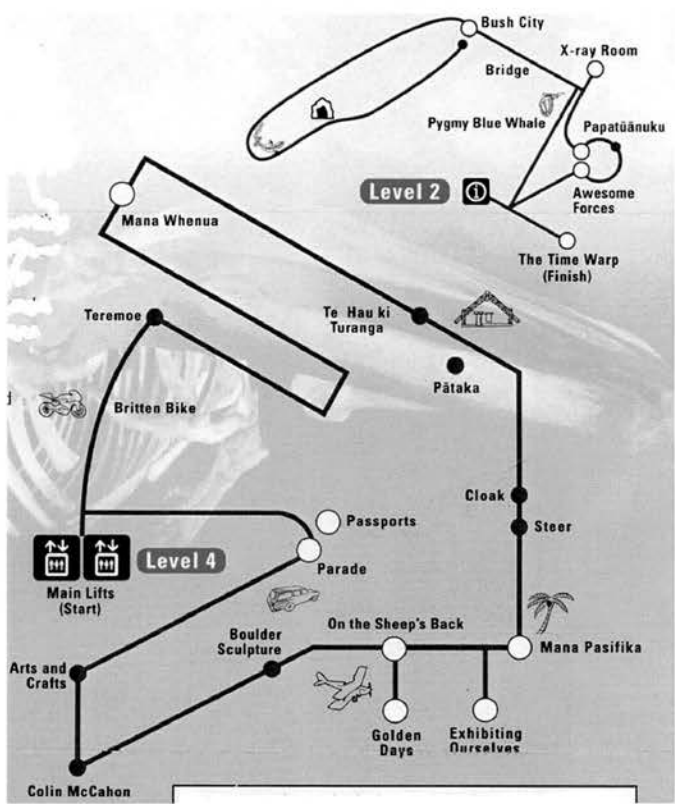
Fig. 57. 'Te Papa in a Hurry' track.

Rather than defining only one route, they decided to differentiate many different 'tracks': 'Te Papa in a Hurry'; 'Nature Track'; 'Maori Track'; 'History Track'; 'Art Track'; 'Te Papa for Kids'; and 'Delving Deeper', thus equipping the visitor with a flexible but structured choice and allowing a plurality of approaches and interpretations: 'There are many journeys in Te Papa. *Along the way we hear the echo of many voices...*'[101]

Conversely to the theory of social control forwarded by Foucault, the idea of using the visitors themselves as a means of security was also deployed in the new public

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[100]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 18.

[101]BOSSLEY, 'Te Papa. An Architectural Adventure', 'the developed concept: journeys'.

museums of the nineteenth century, and was especially successful in the form of the guided tour. It was hoped that the superior manners of the middle and upper classes would be observed and copied by the lower classes, and this approach exemplifies Gramsci's theory of consent.[102] The guided tour has remained a key aspect of the museum experience, and is on offer at all three of the contemporary casestudy museums. In addition to this impact of the tour on the museum visiting public of the early modern era, it was also hoped that the exposure of the relatively uneducated masses to 'high' culture would, in the words of Bennett, 'so transform the inner lives of the population as to alter their forms of life and behaviour.'[103] Indeed, it was widely believed at this time that such first hand contact with culture would engender a new practice of self-regulation, and thus improve the social behaviour of the wider population. As Bennett explains, 'culture was increasingly thought of as a resource to be used in programmes which aimed at bringing about changes in acceptable norms and forms of behaviour and consolidating those norms as self-acting imperatives by inscribing them within broadly disseminated regimes of self-management.'[104] Whichever of these two methods of control or consent was the more effective, however, what is certain is that by the end of the nineteenth century, museums had become 'passionless reformers',[105] 'capable of breaking up, segregating and regulating the conduct of those who entered through the doors'.[106]

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[102]However, such a control strategy had the unwelcome reverse side of encouraging promenading, which Curle refers to in his Annual Report on the Royal Scottish Museum for 1922-23:

> The crowd on Sunday afternoons, which varies largely according to the condition of the weather, is composed very largely of young persons of both sexes. Among these, in the earlier part of the year the behaviour was not all that could be desired. Groups of young men and girls instead of looking at the exhibits in the cases were beginning to treat the galleries as places for promenading, especially on the first floor of the main hall and occasionally interfering with one another in passing. A slight increase in the number of those on patrol duty and the immediate suppression of any approach to rowdiness has brought about a marked improvement in the behaviour of the Sunday crowds, while the numbers tend to increase. [CURLE, Alex O. 'Annual Report on the Royal Scottish Museum', (Edinburgh: Royal Scottish Museum, 1922-23)].

This problem did not abate quickly however, as again in 1926 the Director wrote:

> It is not altogether to the benefit of the more intellectually minded members of the public that the Museum should have become to the extent it has a resort on Sunday afternoons for young persons of both sexes whose interest is more centred in one another than in the Museum collections. Strict order is maintained, but the Museum would be a source of greater pleasure and profit to the bulk of the visitors if it were possible, by some means, to restrict the entry. [CURLE, Alex O. 'Annual Report on the Royal Scottish Museum', (Edinburgh: Royal Scottish Museum, 1925-26)].

[103]BENNETT, 'The Birth of the Museum', p. 20.
[104]Ibid., p. 23.
[105]GOODE, G. Brown. 'The Principles of Museum Administration', (York: Coultas & Volans, 1895), p. 71.
[106]BENNETT, 'The Birth of the Museum', p. 58.

The museum is neither a simply homogenizing nor simply a differentiating institution: its social functioning, rather, is defined by the contradictory pulls between these two tendencies. Yet, however imperfectly it may have been realized in practice, the conception of the museum as an institution in which the working classes - provided they dressed nicely and curbed any tendency towards unseemly conduct - might be exposed to the improving influence of the middle classes was crucial to its construction as a new kind of social space.[107]

This discussion of social control leads on to the final point to be made regarding the influence of the modernist paradigm on the architecture of the museums. Simply, within the modern regime's new structure of knowledge, *education* began to assume a hitherto unimaginable significance.[108] The museum was obviously an ideal forum for this new didactic approach, and as Bennett explains, 'museums, galleries, and, more intermittently, exhibitions played a pivotal role in the formation of the modern state and are fundamental to its conception as, among other things, a set of educative and civilizing agencies'.[109] Fowke symbolised this educative role concretely in the now Royal Museum of Scotland, by designing a bridge to link his Museum building directly to the University of Edinburgh's Old College adjacent to it,[110] and neither has this tradition of erudition gone unnoticed by the architects of the MOS. They chose to create the 'indoor-outdoor' space of the Hawthornden Court,[111] partly to acknowledge and complete the series of educational courtyards which line the southern side of Chambers Street. As Benson himself explains, 'the space itself [the Hawthornden Court] is seen as both a displaced fragment of Fowke's Hall and as a

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[107]Ibid., p. 28.

[108]This began with the instruction of middle- and working-class men, but over time reached women and children. Today the educational programmes of museums, as exemplified by the three institutions considered here, are tailored predominantly, if not exclusively, for children, and this change of target audience has inevitably had severe repercussions on both the type of knowledge offered by museums and the methods of its dissemination.

[109]BENNETT, 'The Birth of the Museum', p.66.

[110]'In 1861 a building was started adjacent to the University and five years later the first phase of it was opened. A bridge was constructed to join the University to the new Museum to give students access to the natural history collections. The Industrial Museum of Scotland and the Natural History Museum were brought together and were renamed the Edinburgh Museum of Science and Art.' [WATERSTON, Charles D. 'Collections in Context. The Museum of the Royal Society of Edinburgh and the Inception of a National Museum for Scotland', (Edinburgh: National Museums of Scotland, 1997), pp. 11, 12].

[111] MACMILLAN, in Benson and Forsyth, 'The Museum of Scotland', p. 115.

glass roofed, Edinburgh court, surrounded by a series of buildings with their own entrances.'[112]

Fig. 58. The naturally lit Hawthornden courtyard at the MOS.

Thus the new Museum's orientation hall completes the educational boulevard begun by Adam and Playfair at Old College, and extended by Fowke in the main hall of the Royal Museum of Scotland.

3.4   Modernity in Interior and Exhibition Design

> 'Our future is optimistic and should be celebrated. This national treasure-house must welcome the people, teach them, inspire them and send them away enlightened and optimistic that we are progressing as human individuals and as a Nation.'[113]
>
> Douglas Cardinal

In many ways, this brief mission statement by the architect of the CMC encapsulates the very programme and ambition of Modernity, and these cornerstones of the Enlightenment: classification; education; progress; and nation inform the casestudy museums' interior and exhibition designs.

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[112]BENSON, "Benson + Forsyth", *Mac Mag*, pp. 4-7.
[113]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 3.

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As charted in the thesis' Introduction, the rise of objectivism and a new emphasis on differences as opposed to similarities, were probably the two most fundamental steps in the process of 'enlightenment'. This basic change in the matrix of knowledge was firstly and most clearly demonstrated in the schematic classificatory tables of the natural scientists of the day. A need to create order and system in this field was imperative in the later part of the seventeenth century, as according to Coleman, 'swelled by collections gathered since the Renaissance - the work of exploratory expeditions, individual travellers, colonial agents, and others - the innumerable natural history cabinets of Europe increased their holdings at an extraordinary rate.'[114] Therefore, the project 'to catalogue this deluge of new animals and plants usefully and accurately became one of the major tasks of natural history, and their abundance and diversity required something more than mere hasty enumeration.'[115] To meet this challenge, the fundamental principles of classificatory procedure were established, and one man in particular, Carolus Linnaeus (1707-1778), took the lead in this. Linnaeus, whose principal aim was to devise an all-encompassing method, said, 'a system is a clue to guide us to botany, without which any such guide is a *chaos*, or a rude and indigested heap of confusion'.[116] Linnaeus's first division or difference was between natural and artificial classifications. The natural system he then subdivided into genera and orders, and in the artificial, most importance was placed on the reproductive structures, with Linnaeus assigning 'primacy to the "number, proportion, figure, and situation" of the anthers (male), which determined the classes, and the pistils (female), which determined the orders.'[117] Hence, in this system it was the observation and articulation of differences which was crucial.[118] This revised matrix or framework was initially in evidence in the new public museums of the age in these natural history collections themselves, but before long an analogous classificatory system, in conjunction with reductionism and specialisation, had been transposed onto all exhibition areas, replacing the 'chaos, or ... rude and indigested heap of confusion' which characterised the pre-modern

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[114]COLEMAN, William. 'Georges Cuvier. Zoologist', (Cambridge, Massachusetts: Harvard University Press, 1964), p.18.

[115]Ibid.

[116]LINNAEUS, C. 'The Elements of Botany', trans. H. Rose, (London: Publisher unknown, 1775), p. 231 in COLEMAN, 'Georges Cuvier. Zoologist', p. 19.

[117]COLEMAN, 'Georges Cuvier. Zoologist', p. 21.

[118]However, as will be shown in Chapter Four, with its reliance on external, visual features, this classificatory table must be seen very much as a transitionary step to Modernity proper.

museum. Indisputably, such system and order are fundamental components of all three contemporary museums, but the MOS will be used as the main exemplar.

Firstly, the Enlightenment project of reductionism is evident at the MOS, as from over 20,000 potential exhibits relating to Scotland and Scottish culture which were initially identified, only 10,374 were eventually incorporated into the finalised exhibition design. As the then Director, Robert Anderson, wrote in 1990: 'We have spent already more than two and a half years analysing what has to go into the new building and the philosophy of the system of displays which will present those artefacts to the public.'[119] From the vantage point of the present, such a reduction seems as necessary as it does obvious, but as demonstrated previously, from a pre-modern perspective such restrictions were often deemed unnecessary. This statement by Anderson also draws attention to the way in which, in the modern museum, the space freed by this process of selection is filled with large quantities of 'professional' interpretation, provided by the new authoritative expert, the curator.

Next it was decided that the remaining material collections should be catalogued and displayed in themes within an all-encompassing chronology, but this decision was reached neither quickly nor easily. Indeed, the development of the curators' attitude towards a single-strand story-line for the Museum contains considerable ambiguity. In the first comprehensive exhibition brief released in December 1991, the position was stated very clearly: 'it would neither be possible nor desirable to fashion this material into a comprehensive "History of Scotland". The unique nature and strengths of the Scottish collections suggest different approaches, based on particular kinds of evidence.'[120] This approach was then almost entirely contradicted in the Architectural Competition Brief published in the same year, which reads, 'the display concept emerging from this work envisages that core displays occupying about three-quarters of the space, should provide a coherent story from the earliest geological times to the present day...'[121] Despite the presence of a time-line overarching the completed Museum presentations, the thematic organisation reveals

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[119]ANDERSON, R.G.W., (Ed.). 'A New Museum for Scotland', (Edinburgh: National Museums of Scotland, 1990), p. 7. Indeed, because of such objective reductionism and specialisation, the National Museums of Scotland also includes a number of small out-stations with specialised collections and several buildings in and around Edinburgh in which parts of the collection are stored and which provide a total of approximately 20,000 square metres of storage space.
[120]'First Comprehensive Exhibition Brief', December, 1991.
[121]'Architectural Competition Brief', p. 10.

that the approach initially outlined in the Comprehensive Exhibition Brief is closer to the one that was eventually favoured, with object gaining supremacy over narrative in the crucial and ongoing opposition and dichotomy between the two.[122]

This dominance of object over narrative, or the antiquarian over the historian, is clearly reversed in 'The Union' and the 'Spirit of the Age' displays within the 'Scotland Transformed' exhibit, however. The array of material evidence relating to both themes is minimal, because both developments were, in essence, only abstract theoretical notions. Taking the Union specifically, being ostensibly a conceptual, non-concrete political act or settlement, contemporary relevant and illustrative material culture is inevitably and unavoidably scarce. A large proportion of these artefacts relate to the heated 'war of words' which ensued after the proposal was first mooted by the English, a good example being a printed copy of a speech given in 1706 by Lord Belhaven, 'a vociferous defender of the Scottish parliament', which is entitled, 'On the Subject Matter of an Union'.[123] However, the majority of the objects in this section are of a symbolic nature, most typically conjoining the until then separate emblematic national images: 'Silver medal, 1707, with a bust of Queen Anne and the new royal arms of Great Britain. The intertwined rose and thistle symbolize the Union.'[124] Such inclusion of displays on the predominantly 'object-less' topics of the intellectual Enlightenment and the political Union,[125] strongly points towards a narrative-based approach. It appears therefore, that the MOS exhibits a closed linear narrative within its exhibition structure, implicitly indicating a belief that complete knowledge is both desirable and attainable.[126] This arrangement has many obvious disadvantages however, as McKean explains: '... a narrative approach could be vulnerable to the charge that it removes choice of interpretation. Artefacts can be interpreted in many ways, but the narrative tends to

[122]This narrative is evidently linear in form, following as it does a straight line chronology. This linearity is almost inevitable when one considers the western or European context in which the Museum is sited. Christianity has always been the predominant religion in the west, and unlike many eastern religions, it does not advocate a cyclical view of the world. Similarly, western philosophy and science have also privileged linearity, and one only needs to think of evolutionary theory and Newtonian physics to substantiate this.

[123]Museum of Scotland text. Floor title: 'Scotland Transformed'. Theme title: 'The Union', p. 3.

[124]Ibid., p. 4.

[125]Indeed, the difficulty of representing the Enlightenment from its material culture is highlighted satirically by McKean in a chapter heading of his MOS 'Draft Text', which reads, 'Davy Hume's cufflinks'.

[126]Arranging the exhibition around arguments and ideas in this way, merely using the fragmentary remaining evidence to illustrate the themes, means that at least superficial completeness of knowledge is guaranteed.

select one: and if the narrative is sufficiently powerful, there is a danger that the museum becomes regarded as *'the arbiter of history''*.[127] This privileging of narrative over object also distances the MOS from the objective 'truth' of the modernist paradigm, as it lessens the importance of the authentic historical object, and this will be considered more fully in relation to post-modern heritage in Chapter Four.

Within the overall chronology at the MOS, classification has then been used, with the material culture being subdivided into themes before being placed within the ordering function of a series or sequence. For example, the 'Scotland Transformed' exhibition has been fragmented into the themes: 'The Union'; 'Trade and Industry'; 'Living on the Land'; 'Power'; 'The Textile Trades'; 'The Jacobite Challenge'; 'The Spirit of the Age'; 'The Church'; and 'Daith Comes In', each of which are then classified around an ordering function, whether it be time or another device. In preferencing such thematic display galleries, the MOS has to some extent rejected the traditional compartmentalisation of knowledge, thus opening itself to a new multi-disciplinary approach. Indeed, in this breakdown of the separate disciplines, the Museum has moved perceptibly in the direction of post-Modernity.

Education is also a central tenet of the modernist paradigm, and in his wish to '...welcome the people, teach them, inspire them and send them away enlightened...', Cardinal locates the CMC firmly within this discourse. Considering the historical context, this didactic movement has already been shown to be linked to the desire for social control and economic supremacy, but it also had less manipulative origins in the new modern framework of knowledge. With the drastic change in the make-up and organisation of the museum's contents resulting from the new technique of classification, came a significant shift in the perceived function of the museum, and this paradigmatic change is neatly articulated by Bennett:

> What changed, then, was not merely the classificatory principles governing the arrangement of exhibits. There was also a changed orientation to the visitor - one which was increasingly pedagogic, aiming to render the principles of intelligibility governing the collections readily intelligible to all and sundry, as contrasted with the secretive and cultic knowledge offered by the cabinet of curiosity.[128]

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[127]McKEAN, 'The Making of the Museum of Scotland. Draft Text', p. 6.2.
[128]BENNETT, 'The Birth of the Museum', p.41.

Thus, as education was integral to Modernity, so it also became the very 'raison d'être' of the modern museum. The Royal Scottish Museum is a good example of this, as is apparent from the frequent mentioning of lectures, demonstrations, and classes for both adults and children in all the Museum's annual reports, from a very early date. For example, the Director in 1914, Carlaw Martin, writes, 'the policy of allying the Museum with the other teaching institutions and adapting specific sections to the needs of students, is, with the assistance of the advisory committee, yielding good results.'[129] Pivotal to this new pedagogic ambition was the curator, who throughout the nineteenth and twentieth centuries bore almost total responsibility for deciding what and how to display to the public. In this powerful role as 'expert', a characteristic category of the modern age, the curator was set apart from the visiting audience in a position of seminal influence.

Turning to the three contemporary museums, we find that this curatorial dominance is certainly beginning to be democratised, albeit to different extents. This hierarchical relationship has remained most static at the MOS, as unequivocally and irreverently demonstrated in the words of Aldridge, a Museum trustee, at the 1990 'Seminar on the New Museum of Scotland':

> Selecting themes is helpful because the person who knows the collection best and does the selecting is enabling the visitor to see the inter-relationships and the links ... A Museum Curator's job is to do this selection for me, the visitor. He is welcome to his opinion. If some wet educational psychologist tells me that all this is elitist, I would have him visit your taxidermist.[130]

However, the authority of the curator did not remain entirely unchallenged at the MOS. Being a largely 'custom-built' museum, rather than the flexible model of warehouse with moveable screens, the architects became involved with the exhibition design to a considerable extent, and this involvement was increased by the inclusion of many extremely large exhibits. A certain shift in power can therefore be observed from the traditional display designer, the curator, to a new 'expert', the architect. It is fair to state that this transferral of power was not always received with great enthusiasm. Another challenge to the curator, more evident in

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[129]CARLAW MARTIN, T. 'Annual Report on the Royal Scottish Museum for 1913-14', (Edinburgh: Royal Scottish Museum, 1914), p. 3.

[130]ALDRIDGE, Don. Seminar on the New Museum of Scotland, 1990, in McKEAN, 'The Making of the Museum of Scotland. Draft Text', p. 6.2.

the CMC and Te Papa than the MOS, is a new empowerment of the museum's visitor, facilitated, as will be discussed in Chapter Four, by new multi-media and heritage techniques.

Regardless of whose it is however, the interpretative voice is still a crucial and defining aspect of all three museums, although the rigid and didactic 'instruction' and 'education' of the early modern period has been largely replaced by the looser and more democratised notions of 'learning' and 'interpretation'. By the briefing stage of the CMC project, the aim 'to provide the general public, scholars, educators and young people with access to the collections and the knowledge which makes them meaningful', had been identified, and a similar ambition at Te Papa to create '...a place where research, education, and entertainment are given equal standing', was defined. In all three institutions, the traditional communicative devices of labels and audio tours have remained, but as will be discussed more fully later, are augmented with computerised 'discovery points', and specific interpretation or resource centres.

Presumptions regarding the idea of progress that could only be hinted at through the museums' architecture, can be spelt out clearly by its exhibitions. Contrary to the attitude towards progress characteristic of the modern schema, a scepticism towards blind adherence to the inherent value of progress was repeatedly proposed by those involved at the MOS: 'Displays should avoid the sense of the past inevitably leading to the present, because that is the fodder of myth. History is full of blind alleys and unexpected breaks, and that is what makes it exciting.'[131] Such refusal to acquiesce to the positive notion of progress championed by Modernity is exemplified in the Architectural Competition Brief, in relation to the process of industrialisation and its concomitant urbanisation in the 'Way of Life' section. It states, 'A 'Way of Life' looks at how people of different classes lived and died, recreating elements of the trauma resulting from the translation of a rural population into an urban industrialised nation in the space of two generations.'[132] There was clearly an understanding amongst museum professionals at the MOS of the flaws within the modernist notion of progress, but was this understanding carried through into the exhibitions themselves? Significantly, this does not appear to be the case. Rather,

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[131]Anon., cited in McKEAN, 'The Making of the Museum of Scotland. Draft Text', p. 2.9. It was admitted, whilst carrying out testbed research, that, 'not every change is an improvement'. [Ibid.].
[132]Architectural Competition Brief, p. 14.

the narrative usually slips back into its default position: the proposition that change through time is always equivalent to advancement. Using the same historical shift as an example, this attitude is neatly summarised again in the Architectural Brief: 'For most of the population, a shift from subsistence and threat of famine to a modest plenty changed diet, clothing and shelter.'[133] The importance of the idea of progress is also reflected in the overall structure of the exhibition, with the narrative being arranged chronologically first and only then into separate themes,[134] and with the period of greatest and swiftest change forming the content of the largest and most central gallery:

> The centre-piece of the Museum will be the galleries devoted to the 18th and 19th centuries, a period when Scotland underwent a transformation from a rural society to a mainly urban and heavy industrial economy that was the 'Workshop of the Empire'. The displays capture the essence of the various social, economic, political and religious developments experienced in Scotland during this period.[135]

The final aspect of the modern paradigm to be explored in the museums' interior and exhibition designs is the nation-state, which as we saw from Cardinal, is closely bound to western concepts of Enlightenment and progress: 'This national treasure-house must welcome the people, teach them, inspire them, and send them away enlightened and optimistic that we are progressing as human individuals and as a Nation'.[136] In this progression towards both the Canadian and New Zealand nations, the meetings of cultures were undoubtedly defining moments. Indeed, the new ethos of Modernity brought from Europe was most starkly exposed when its followers encountered its antithesis, in the form of pre-modern societies.

In the eighteenth and nineteenth centuries, 'enlightened' European societies viewed their civilisations as superior to those of pre-modern cultures, which they increasingly encountered through the imperialist project. Indeed, a scrutinising white European imperialist gaze fixed itself on Africa and Asia in particular, and in

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[133]Ibid.

[134]This chronology is occasionally reversed, as in the geological section where, 'at each time interval, a graphic representation would show the familiar map of Scotland transforming into gradually less familiar maps of Scotland in the past.' [Architectural Competition Brief, p. 13.]

[135]'Reference Manual', Factsheet Number 6.5 - 'The Core Display Areas.' 'North Britain: Scotland Transformed (1707-1914).'

[136]MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 3.

the case of museology, geographical and cultural differences were transposed onto a time-scale, with these 'remote' peoples and societies being seen as a link between prehistoric man and his contemporary European counterpart.[137] As Fenton explains:

> From Victorian times it became fashionable to seek out comparisons, whether amongst survivals of the past into the present in our own country or amongst the distant nations of the world, on the basis of the intellectual concept of man's rise from savagery to civilization. The fashion died, though archaeologists may still turn to ethnographic evidence for information about techniques and functions that will allow them at least to narrow the range of options in their efforts to interpret the past.[138]

Leading on from this historical viewpoint, Craig explains how even today,

> ...the periphery becomes the repository of the historically backward in which the lost evidence of the core culture can be recovered: the peripheral culture allows the historian or critic to define what escaped definition in an earlier period of the dominant culture's development. The periphery's own experience is thus defined, implicitly, as an after-echo, a belated re-run of the events of the centre.[139]

Crucially however, the curators at both the CMC and Te Papa have avoided falling in line with this white, European, imperialist paradigm, forging instead a balanced and pluralist approach. For example, the potentially problematic decision was taken to depict indigenous life and culture in the CMC's Grand Hall at a time *after* the arrival of European settlers.

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[137]This technique is directly related to that still employed by many curators of the prehistoric period due to the absence of written records: 'One approach is to look at still-functioning survivals in this and other countries. If we do this, the projection back in time of practices relating to present-day or recent tools and equipment of traditional character must always be done with great care.' [FENTON, Alexander. 'Essential Evidence: The Material Culture of Scotland', in CALDER, 'The Wealth of a Nation', p. 20].

[138]Ibid. This ethnographic technique broke many of the rules of the process of objective analysis, defined as 'regarding or setting forth what is external, actual, practical, uncoloured by ones own sensations or emotions', and as such, it can be seen as a potentially dangerous route to understanding:
> A form of institutionalized racism was established. Since the Victorian period, archaeology and history have continuously been used as supportive evidence for the superiority of white European peoples, the most disastrous form manifesting itself in the incorporation of Kosina's archaeological research on Germanic origins into Nazi racist ideology (Trigger 1989: 163-7). [TRIGGER, Bruce G. 'A History of Archaeological Thought', (Cambridge: Cambridge University Press, 1989), pp. 163-7].

[139]CRAIG, Cairns. 'Out of History: Narrative Paradigms in Scottish and English Culture', (Edinburgh: Polygon Press, 1996).
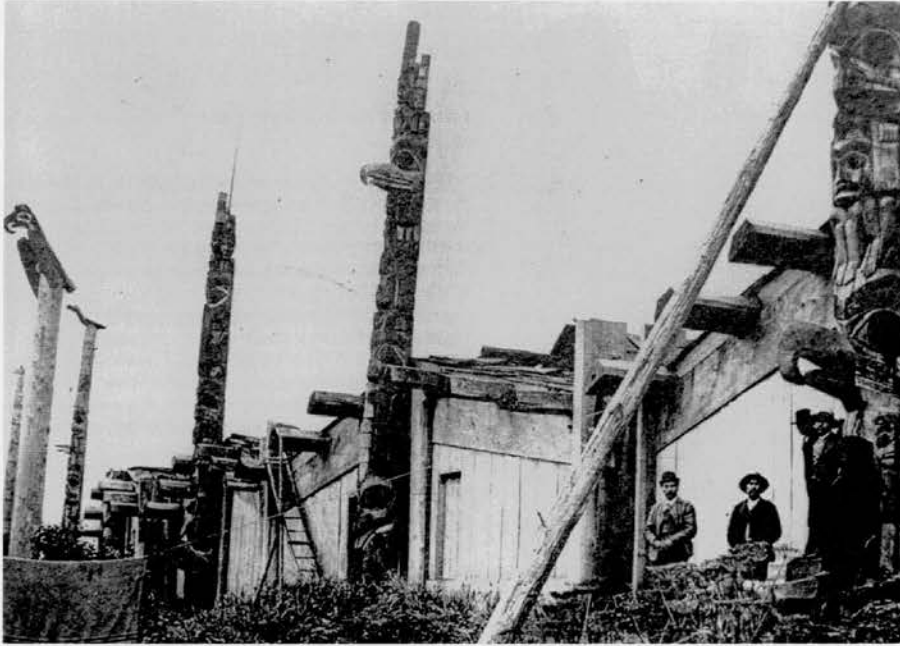
Fig. 59. Inhabitants of the Haida village of Haina, 1888, in 'European' attire.

This forced the curators to address contentious and sensitive issues, such as the decimation of the native population through the introduction of European diseases, and in taking up this difficult challenge in a purposefully impartial and academic manner, a rich and vital tableau of life on the British Colombian coast over the last two centuries has been achieved: 'The arrival of explorers, followed by fur traders, missionaries, the British Navy, and settlers, brought tragedy, opportunity and dilemmas to every family on the coast. The last years of the eighteenth century, and the nineteenth and twentieth centuries represent a period of innovation, change, resistance, loss, recovery and ultimately, survival.'[140]

No less sensitive however, was the 'Treaty' space within Te Papa, but again this issue was addressed openly and directly, despite as Bossley describes it, the '...sense that many visitors may potentially have a fair degree of antipathy towards any exhibition regarding the treaty'.[141] Indeed as has been seen, the most central and pivotal space of the entire building, the 'wedge', was used to house it, with, 'the selection of this space, reinforc[ing] the museum's attitude towards the importance of the treaty...'[142] The exhibit occupies a total area of 650 square metres, and is housed on Level Four

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[140] CMC text from the Grand Hall.
[141] BOSSLEY, 'The Treaty', in "The Designing of Te Papa", *Architecture New Zealand*, p. 64.
[142] Ibid.

and on the Level Five mezzanine. Bossley, a member of the design team, writes, 'The main level 4 space is of monumental proportions under the expanding conical roof and between the 11m-high, exposed concrete walls on each side. The vaulted ceiling is of triangulated fibrous plaster and macrocarpa slats, suggesting interwoven links between the pakeha and Maori sections across the space.'[143]

Figs. 60 and 61. The exhibition space given over to the Treaty of Waitangi at Te Papa.

Regarding the exhibition itself, just as with the MOS's portrayal of the Enlightenment and the Union of the Parliaments, material evidence relating to the Treaty of Waitangi is scarce: 'There were very few artefacts directly related to the treaty, and the original documents were to remain at the National Achives.'[144] This dearth of material culture inevitably led to a curatorially-controlled narrative approach, which begins on the main Level Four hall most unusually, with three clusters of rusted steel poles, varying in height and diameter, symbolically representing the basic themes of governance, land and cultural heritage, and citizens' rights.

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[143]Ibid.
[144]Ibid.

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Fig. 62. Clusters of metal poles at the entrance to Te Papa's 'Treaty' exhibition.

Most significantly, the poles incorporate graphic panels depicting stories of individuals affected by the treaty, and this fragmentation or personalisation is further emphasised by, 'the soft murmuring of many voices telling their varied stories...'[145] Such plurality and egality in this depiction of the effects of the Treaty on all the people of New Zealand is in direct opposition to the single western, Imperialist 'truth' of Modernity, embracing instead the multiple and non-hierarchised narratives of post-Modernity. Moving further into the display area beyond the clusters, '...a huge, 7x5m suspended glass relief acknowledges, in two layers, the history of the document itself. The front layer contains all the signatures of the Waitangi document, while the rear layer represents, in moulded and coloured surfaces, the parchment as ravaged by ill treatment and hungry rats.'[146]

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[145]Ibid., p. 67.
[146]Ibid.
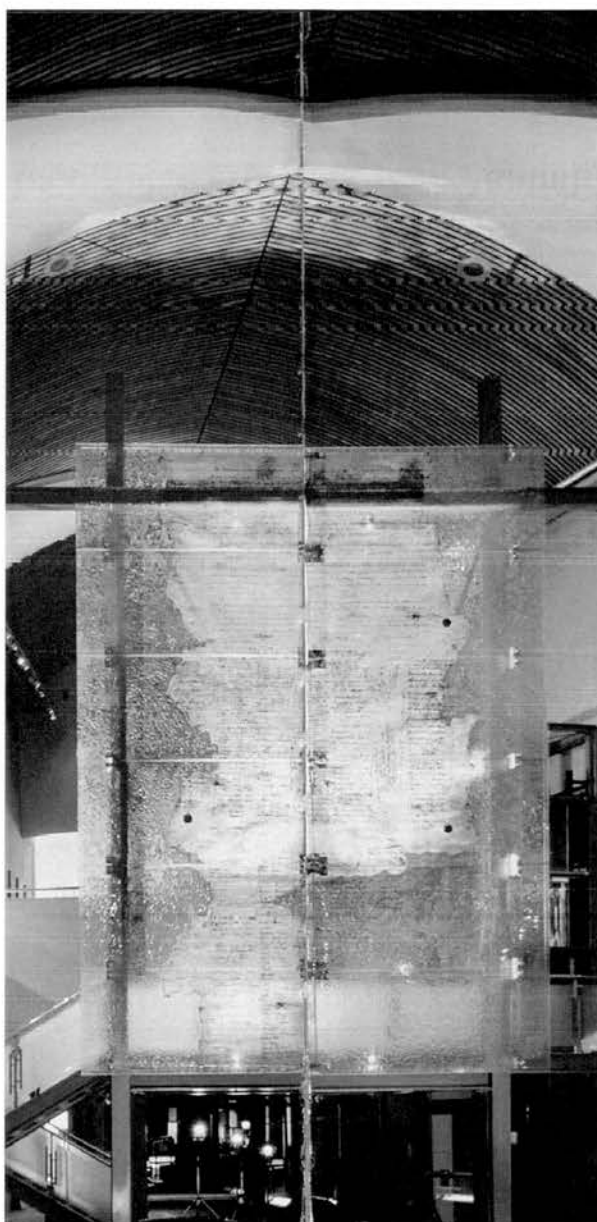
Fig. 63. Enlarged and suspended reconstruction of the original treaty document.

This is a powerfully iconic example of the inauthenticity of postmodern reconstruction. To complete this space, two large-scale translations of the treaty in English and Maori are suspended on the respective walls of the 'wedge', [147] creating a quietly charged display, far removed from the object-based academicism of the early modern museum display. In its provision of an educative display however, the mezzanine level falls back within the framework of Modernity.

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[147]These plaques, one of which is shown in Figure 61, measure 9 metres by 7 metres.
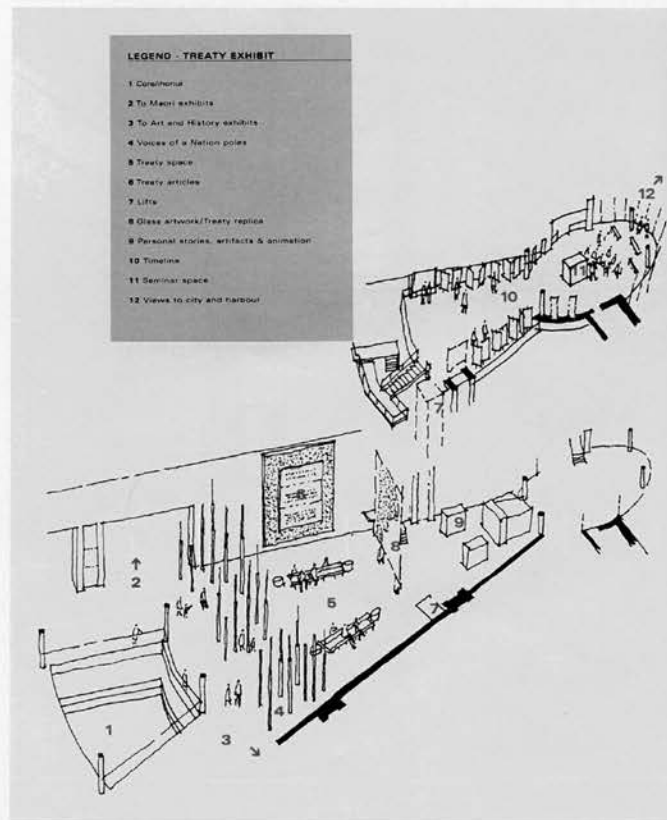
Fig. 64. Exploded isometric drawing of the Treaty exhibition at Te Papa, showing the 'educative' mezzanine level.

JASMAX in association with the Te Papa curatorial team, largely discarded the framework of Modernity in their attempt to produce a balanced, plural, and inclusive interpretation of the Treaty of Waitangi: 'The treaty is therefore seen in a variety of contexts - historical, monumental, awe-inspiring, troublesome, flawed, under constant reinterpretation as part of the ongoing debate, but above all, relevant.'[148]

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[148]BOSSLEY, 'The Treaty', in "The Designing of Te Papa", *Architecture New Zealand*, p. 67.

CHAPTER FOUR

4.1   The International Machine Aesthetic

Modernity found its most extreme expression in the period with which this final chapter is concerned, 1914 to the present day. The objectivity and reductionism of the earlier modern period discussed in the previous chapter became ever more influential and decontextualised, often relegating the subjective to obscurity, and this bias is well explained by Lewis Mumford:

> In the effort to achieve verifiable knowledge, science isolated quantities from qualities, objective data from subjective data, the measurable from the incommensurable, the simple part from the complex whole; and by that act it thrust aside as unreal the world of the artists: the world arising out of emotion and desire, the world of the qualitative and subjective, the world whose complex patterns become meaningless as soon as they are reduced to mere fragments.
> This deliberate depersonalization and dehumanization of knowledge gave the physical scientist a great tool for investigation of the forces of nature; but at the same time it reduced half of human life, the subjective half, the inner half, to a state of insignificance, if not actual nonexistence.[1]

As will be seen subsequently, this fundamental imbalance has been widely blamed for the series of horrific conflicts that characterised the twentieth century.

Looking back briefly, the origins of this obsession with the objective can be clearly located within the work of the French philosopher and mathematician, Descartes,

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[1]MUMFORD, Lewis, 'From Revolt to Renewal', in 'Lewis Mumford at 100. Sticks, Stones, Cities, Culture. A Symposium Celebrating the Centennial of Lewis Mumford's Birth', (Philadelphia: University of Pennsylvania, 1995), pp. 24, 25.

Fig. 1. René Descartes, 1596-1650.

and in his essay 'The Postmodern Challenge to Biology', Birch explains the almost puritanical zest with which Descartes adopted objectivism:

> [He] wanted to reduce the laws of biology to the laws of matter in motion. "Give me matter and motion", he said in effect, "and I shall construct a universe." Mind was recognised to exist only in human beings. The rest of the created things on our planet, including the human body, were understood in strictly mechanistic terms.[2]

This argument was then stretched to its logical but extreme limit, producing a widely held conclusion that now appears naively simplistic: 'The methodology of mechanistic biology is to investigate the living organism as if it were a machine. Many biologists, probably most of them since Descartes, take the next step, a metaphysical one, and conclude that the living organism *is* a machine.'[3]

This correspondence, formulated by Descartes, was strengthened almost two centuries later by Georges Cuvier, who was the first of the natural scientists to privilege function over appearance.

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[2]BIRCH, Charles, 'The Postmodern Challenge to Biology', in JENCKS, Charles, (Ed.), 'The Post-Modern Reader', (London: Academy Editions, 1992), p. 392.
[3]Ibid.

Fig. 2. Georges Cuvier, 1769-1832.

For him, superficial, surface features were no longer the key to understanding organisms as they had been in the early modern age,[4] when as Hooper-Greenhill explains, 'on the classificatory table, order was presented through the visible features of things'.[5] Rather, he proposed that deeper and more intrinsic functional insights were necessary in order to classify the living world, and therefore comprehend the complexities of life. As Foucault observed:

> From Cuvier onward, it is life in its non-perceptible, purely functional aspect that provides the basis for the exterior possibility of a classification. The classification of living beings is no longer to be found in the great expanse of order; the possibility of classification now arises from the depths of life, from those elements most hidden from view.[6]

Therefore, an organism was no longer classified on the basis of its visual appearance, but rather on the function of its internal structure, and this information was then related back to the outside of the organism in order to make sense of its exterior markings. As Hooper-Greenhill explains, 'the visible features of plants and animals

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[4] See the discussion of the work of Carolus Linnaeus in the previous chapter.
[5] HOOPER-GREENHILL, Eilean. 'Museums and the Shaping of Knowledge', (London & New York: Routledge, 1992), p. 16.
[6] FOUCAULT, Michel. 'The Order of Things', (London: Tavistock Publications, 1970), p. 268.

are now to be explained in terms of their functional role'.[7] Function was given prominence, and the biological organism was literally, rather than metaphorically, regarded as a machine. By the twentieth century, this interiority and functionalism also came to affect architecture deeply, and at the Museum's 1990 Symposium, Philip Dowson explained the desire to achieve this relationship at the MOS:

> When a building is complete, I like to feel, in a sense, that it could be cut in half, have its anatomy totally laid open to reveal a consistency between the architectural ideas and the physical organisation of its parts, down to the smallest detail. That is, if it is to have that authenticity which I believe a work of architecture must have.[8]

Such a mechanistic and functional model still dominates contemporary science, and in the biological field one only needs to consider the reductionism and objectivity of human genetic mapping to support this. In the physical sciences, this mechanistic view undoubtedly reached its zenith in the latter part of the nineteenth century. However, to quote Bohm,

> ...this view remains the basis of the approach of most physicists and other scientists today. Although the more recent physics has dissolved the mechanistic view, not very many scientists and even fewer members of the general public are aware of this fact; therefore, the mechanistic view is still the dominant view as far as effectiveness is concerned.[9]

It was clearly in the field of science that a mechanistic approach was first adopted and indeed, has remained most apparent, but crucially the ramifications of this functional mechanism did not end there.

Twentieth century art and architecture responded aesthetically to this new functional cult of the machine, initially through Cubism, which is seen by many commentators as forming the tip of the inverted triangular paradigm of modern art. Picasso and Braque, the movement's main exponents, 'abandoned traditional notions of perspective, foreshortening, and modelling, and aimed to represent solidity and volume in a two-dimensional plane without converting the two-dimensional canvas

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[7]HOOPER-GREENHILL, 'Museums and the Shaping of Knowledge', p. 17.
[8]DOWSON, Philip. 'Report on the 1990 Symposium, "A New Museum for Scotland"', (Edinburgh: National Museums of Scotland, 1990), p. 21.
[9]BOHM, David, 'Postmodern Science and a Postmodern World', in JENCKS, 'The Post-Modern Reader', p. 385.

illusionistically into a three-dimensional picture-space',[10] and the visual results of this synthesis of form into angular geometric patterns clearly resemble the shapes and crisp lines of machinery.
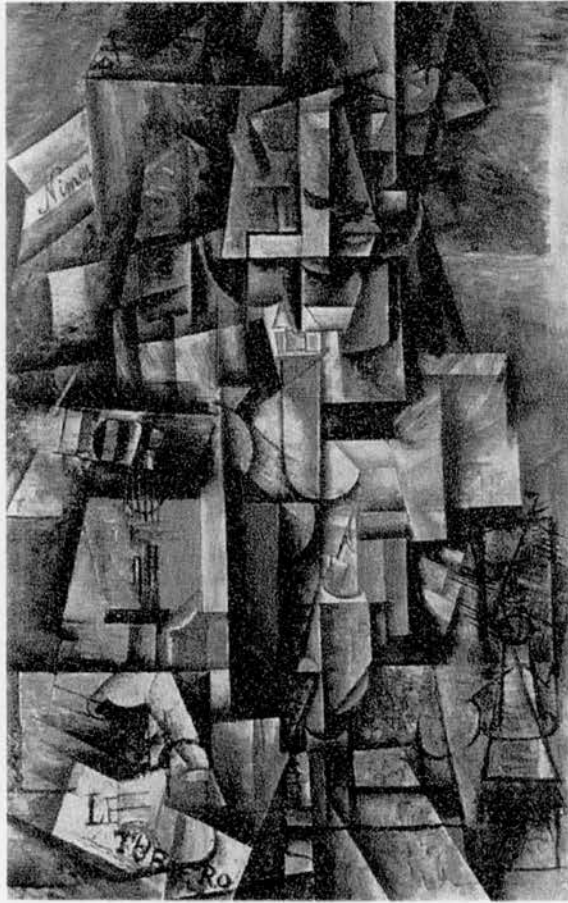
Fig. 3. Pablo Picasso, 'L'Aficionado', 1912.

Significantly, one of the architects of the MOS, Gordon Benson, has likened the Museum's triangular orientation court to a Cubist composition because of the superimposition of deconstructed planes,[11] and a Cubist resonance is certainly discernible in this space largely because of the many projecting panels,[12] stair screens, and bridges, which inevitably overlap from various viewpoints.

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[10]CHILVERS, Ian, OSBORNE, Harold, and FARR, Dennis, (Eds.). 'The Oxford Dictionary of Art', (Oxford & New York: Oxford University Press, 1988), p. 129.
[11]BENSON, Gordon, speaking at The Robert Gordon University Heritage Convention, titled, 'Museums and Cultural Identity. Shaping the Image of Nations', held at the Royal Museum of Scotland on 22-24 September, 1999.
[12]Most notable of these panels are the square plane, seemingly supported by a single column on the eastern side of the hall, and the two rectangular balcony screens on the space's southern wall.
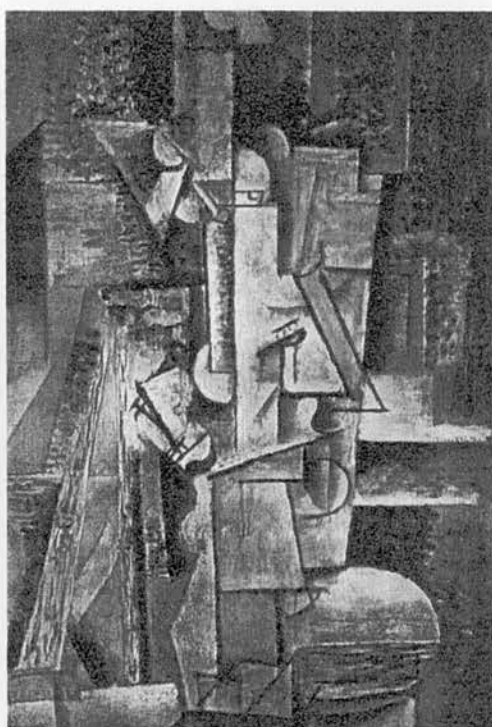
Fig. 4. Overlapping planes in the MOS's triangular Hawthornden Court.
Fig. 5. Pablo Picasso, 'Le Modèle', 1912.

In the wake of Cubism, geometric abstraction blossomed, with its simplicity of form and indeterminacy of scale referring directly to the mechanisation and reductionism of Modernity. The Suprematists, headed by Malevich (1878-1935), as well as the De Stijl group, led this avant-garde:

> In Holland the de Stijl movement was attempting to extract an entire design
> vocabulary from the rectilinear, spiritual abstractions of Mondrian and van
> Doesburg. In Russia the architectural avant-garde drew on Gabo's
> Constructivist experiments, Malevich's Suprematist abstractions and El
> Lissitzky's Elementarist paintings in its search for a post-revolutionary
> symbolism. At the Bauhaus (especially after 1922), the educational
> programme incorporated painting and sculpture as 'basic design' disciplines. A
> common theme emerged: the 'essence of the times' was to be revealed in a
> naked and universal language of geometry infused with the utopian sentiment
> of salvation via mechanization.[13]

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[13]CURTIS, William J.R. 'Le Corbusier. Ideas and Forms', (Oxford: Phaidon, 1986), p. 50.

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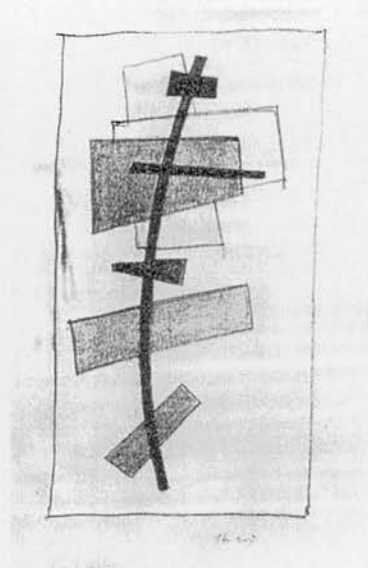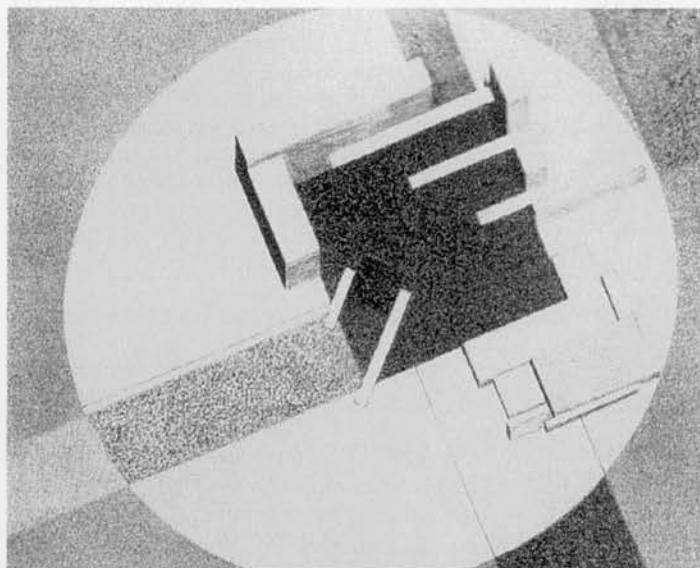
Fig. 6. El Lissitzky, 'Proun IE (City)', 1921.
Fig. 7. Malevich, Suprematist Drawing, c. 1915-17.

Te Papa directly exhibits such two-dimensional rectilinear abstraction in the vividly coloured panel composite or spandrel artwork on its Cable Street façade, which whether consciously or not, evokes the work of Mondrian in particular, as well as the wider tradition of geometric modernist abstraction.
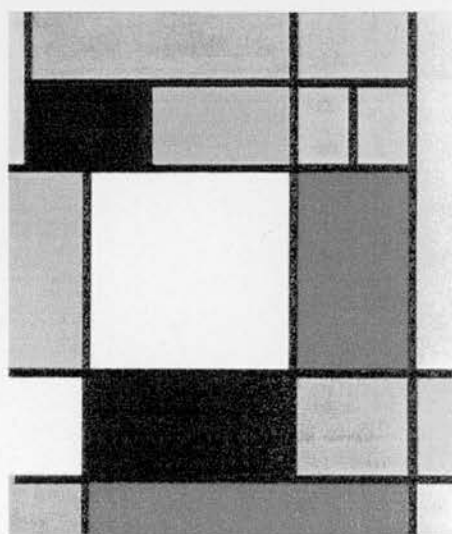
Fig. 8. Coloured panels on Te Papa's Cable Street façade.
Fig. 9. Mondrian, 'Composition in red, yellow and blue', 1920.

However, this 'naked and universal language of geometry', or abstraction, was not confined to the two-dimensions of art, but also impacted on the work of the architectural modernists:

...without the influence of Cubism and abstract art, the architecture of the 1920s would probably have been very different. This was not so much a matter of architects lifting motifs from paintings and aping their forms, as it was a matter of infusing the entire three-dimensional anatomy of architecture with a geometrical and spatial character *analogous* to that first discovered in the illusionistic world behind the picture plane.[14]
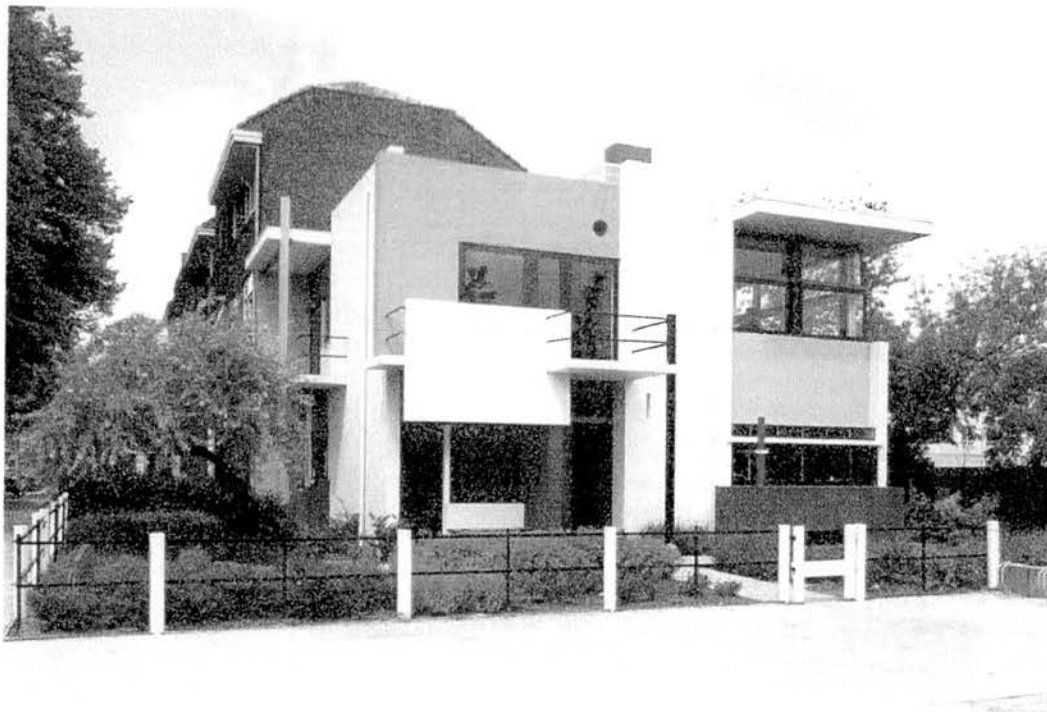
Fig. 10. Gerrit Thomas Rietveld, Schröder House, Utrecht, 1923-4.

Theo van Doesburg and Gerrit Rietveld led this adaption of planar abstraction into three dimensions, and were soon joined by Le Corbusier, who revealed an obsession with primary, geometric, and abstracted forms in his book, 'Vers une Architecture', in which he proposed that, 'architecture is the masterly, correct and magnificent play of volumes brought together in light. Our eyes are made to see forms in light ... cubes, cones, spheres, cylinders or pyramids are the great primary forms that light reveals to advantage ... It is of the very nature of the plastic arts.'[15] As seen in Chapter Three, Le Corbusier revered the classical tradition and often abstracted his forms from those of antiquity. For example, his Maison La Roche and Villa Garches, although initially appearing radically to reject historicism, upon closer inspection reveal themselves to

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[14] CURTIS, William J.R. 'Modern Architecture Since 1900', (London: Phaidon Press Limited, 1997), third edition, p. 150.

[15] LE CORBUSIER. 'Vers une Architecture'. (Paris: Vincent Freal, 1923). This volume was translated into English by Frederick Etchells in 1927 as 'Towards a New Architecture', and republished frequently thereafter in many languages.

be based on the House of the Tragic Poet in Pompei, and Palladio's canonical Villa Malcontenta respectively.
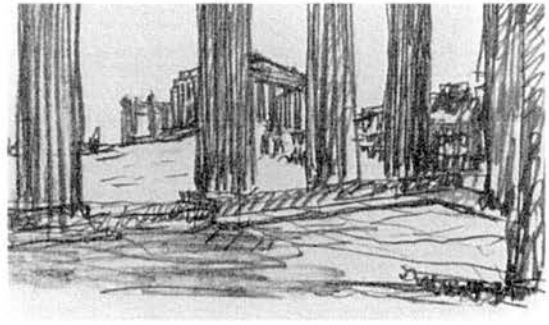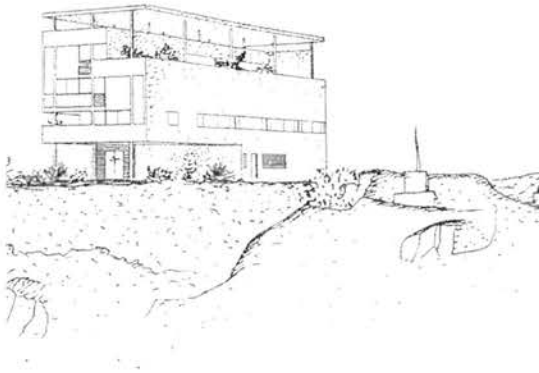
Fig. 11. Le Corbusier, Maison La Roche/Jeanneret, Paris, 1923-5.
Fig. 12. Le Corbusier, sketch of the Acropolis, Athens, done during the *'voyage d'Orient'*, 1911.

Thus along with many of his fellow modernists, Le Corbusier manipulated the classical tradition into a new reduced and abstracted functionalism,[16] and this recalls the MOS, which as seen in Chapter Three is composed of the three-dimensional primary, geometric forms of a cuboid, triangular prism, cylinder,[17] and half cylinder in the core gallery, orientation court, entrance tower, and roof terrace respectively.[18]

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[16] In the words of Curtis:

> Jeanneret [Le Corbusier was formerly known as Charles-Édouard Jeanneret] was ... revealing his capacity to penetrate to substructures in tradition, then to manipulate, compress and fuse the resultant types into new synthesis - a procedure that would remain quite basic to his creative method. It would have resulted in facile collages of quotations if he had not been able to transform sources into new symbolic forms deeply embedded in his own myths, ideology and philosophy of life. [CURTIS, 'Le Corbusier. Ideas and Forms', p.46.]

[17] Functionally, Benson and Forsyth's corner tower is analogous to that which Le Corbusier designed for Maison Favre-Jacot. In the words of the architects of the MOS, 'the corner of Chambers Street is redefined by a cylinder which addresses the five approach roads and signals the presence of the two museums'. As such, it acts both to draw visitors towards the building, but also to deflect the incoming roads like a buffer. In his project for Maison Favre-Jacot, Le Corbusier encountered similar problems to those at the museum, and resolved them correspondingly with a circular portico that acted as a hinge.

[18] Similarly, the plan form of Te Papa is comprised of a rectangle and two triangles.
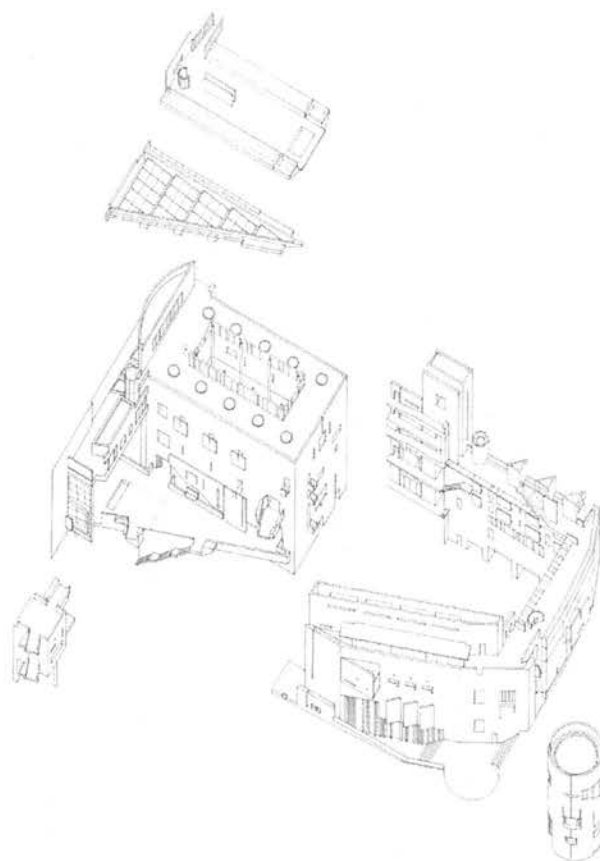
Fig. 13. Exploded axonometric drawing of the MOS, revealing its geometric composition.

Benson and Forsyth were clearly communicating in the 'naked and universal language of geometry', but rather than abstracting from classical architecture directly, were reinterpreting the forms of modernism. As will be substantiated subsequently, Allan writes that,

> Architecturally the Museum of Scotland is rooted in modernism, of that there can be no doubt. It is predicated upon the modern principle of abstraction. Its forms are refined until purged of literal references, leaving only a series of timeless echoes. The echoes of Le Corbusier and Mackintosh are clearly audible.[19]

In considering the wider postulations of Adorno, this preoccupation with abstraction can be seen not only to bind the MOS to the tradition of architectural modernism,[20] but also to the Enlightenment project in general:

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[19]ALLAN, John, in BENSON, Gordon, and FORSYTH, Alan. 'Museum of Scotland', (London: August Media in association with Benson + Forsyth, 1999), p. 128.

[20] However, like Richard Meier's Museum für Kunsthandwerk in Frankfurt, which according to Norbert Huse, '…is emphatically a public and urban institution, a rejection of the Modernist isolation of the building as a free-standing object distanced from its surrounds', so Benson and Forsyth's abstraction, as we have already seen, is firmly grounded in its physical and conceptual

Abstraction, the tool of enlightenment, treats its objects as did fate, the notion of which it rejects: it liquidates them. Under the levelling domination of abstraction (which makes everything in nature repeatable), and of industry (for which abstraction ordains repetition), the freedom themselves finally came to form that "herd" which Hegel has declared to be the result of enlightenment.[21]

In addition to this geometric abstraction, the mechanistic analogy of the human body was also embraced and applied to architecture, with the Constructivists conceiving of their buildings as, 'a genre lying somewhere between machine form and biological structures'.[22] However, this confluence of ideas was undoubtedly transposed onto the built environment most directly by Le Corbusier, who between 1942 and 1948 developed the body modulor. This was a proportional system intended to be used in calculating the relative dimensions of building units and was based on the golden section or the Fibonacci series, with the human body as its basis. In the initial system, the ideal body height was taken as 175cm, from which the other two key measurements, from the ground to the apex of a raised hand, and to the solar plexus respectively, were derived. The second version shown below however, was based on a body height of 183cm or exactly six feet.
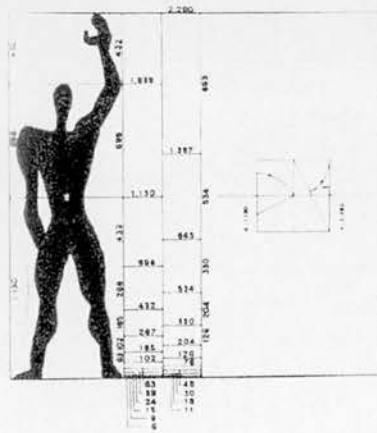
Fig. 14. Le Corbusier's second Modulor system based on the dimensions of the human body.

setting. This notion of the importance of the building's context to Meier is then compared with the geographical abstraction of much modern architecture, and a similar conclusion could be reached with regards to the MOS: 'In contrast to the work of Le Corbusier or the artists of De Stijl, the determining geometry here is derived not from a subjective aesthetic with a claim to universality but from the existing context.' [source unknown].

[21] ADORNO, Theodor, and HORKHEIMER, Max. 'Dialectic of Enlightenment', (London & New York: Verso, 1944, 1992), third edition, p. 13.
[22] LAMPUGNANI, Vittorio Magnago, (Ed.). 'Dictionary of Twentieth Century Architecture', (New York: Thames & Hudson, 1996), p. 72.

Next, adhering to the mechanistic modernist dictum that 'form follows function', Le Corbusier transposed this standard body model onto his architecture, producing buildings that he famously described as *'machines for living in'*; and nowhere is this link between the human body, mechanisation, and architecture more clear. The very proportions of the human body, all be they standardised,[23] informed the dimensions of Le Corbusier's architecture, and this functional, anthropometrical quest reached its peak during his 'villa period' of the 1920s and 1930s. To facilitate the production of such mechanistic architecture, he outlined 'Five Points of a New Architecture' in his publication 'Vers une Architecture', and many of these characteristic elements are visible in the MOS in particular, although also to a lesser extent in the CMC and Te Papa.
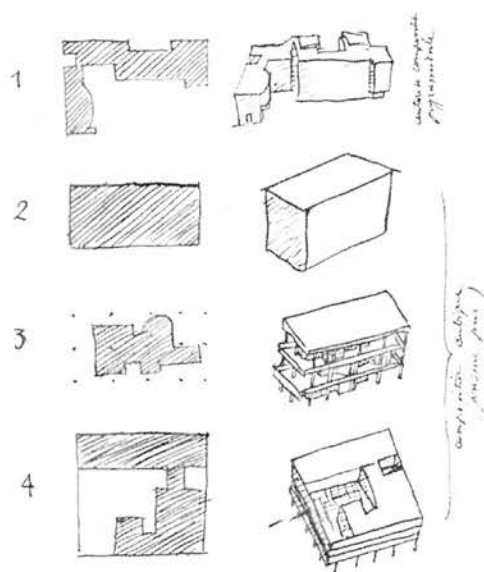
Fig. 15. Le Corbusier, variations on the syntax of the 'Five Points of a New Architecture': 1. Maison La Roche/Jeanneret; 2. Villa Stein/de Monzie; 3. Villa Baizeau; 4. Villa Savoye.

Firstly Le Corbusier advocated the use of pilotis, or 'vertical stanchions of steel or concrete'. Indeed, as Curtis explains, these 'pilotis lay close to his central philosophical and symbolic aims, to intentions which transcended the particular case'.[24] This form appeared experimentally first in Dom-ino sketches and the idea was developed through Citrohan and Maison Cook, amongst other designs, before reaching its seemingly perfected manifestation at Villa Savoye. In this design, on looking at the south facade, the weight of the building appears to be carried wholly on

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[23]The homogenising force of Modernity is strongly apparent here.
[24]CURTIS, 'Le Corbusier. Ideas and Forms', p.106.

five spindly white piers, producing the effect of the building's mass hovering above. This illusion is enhanced by the indistinctness of the structural undercroft, which is coloured green and cast in shadows.
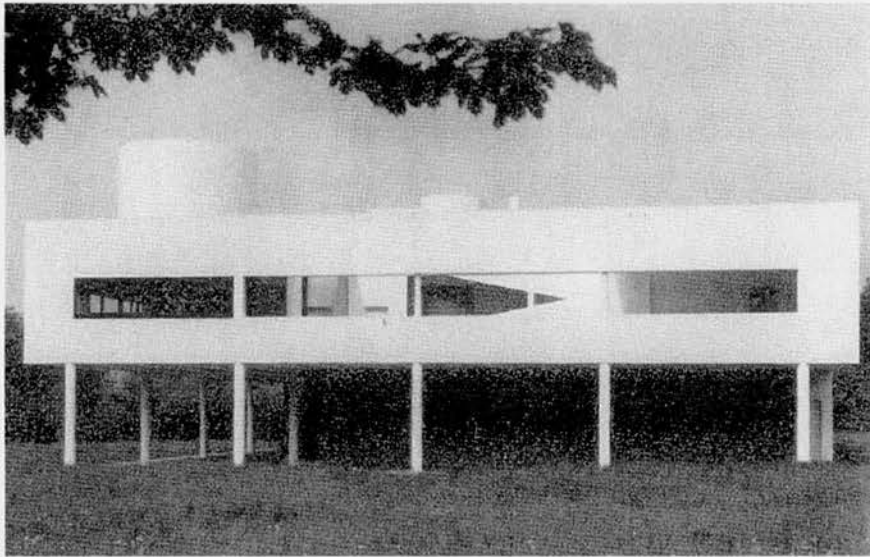
Fig. 16. Le Corbusier, Villa Savoye, Poissy, 1928-31.

Examining all three casestudy museums, it is abundantly clear that their relationship to the ground is entirely contrasted with that of the Villa Savoye. In each case, the substantial volumes are solidly attached to the ground, making the structures as a whole appear sturdy and organic, more in the manner of Frank Lloyd Wright than Le Corbusier. Despite this absence of external pilotis however, all three buildings utilise framed constructions, which effectively act as internal systems of pilotis. This arrangement is most noticeable in the core gallery space of the MOS, in which as we have seen previously, fifteen columns or 'pilotis' form a three by five bay structural grid. Indeed, Le Corbusier employed just such a system at Garches, where to quote Curtis, 'the 'Five Points' jump into yet another combination with pilotis appearing only on the interiors, where they introduced a constant scale, a rhythm, a cadence of repose.'[25] In addition to this, although not at ground level, the MOS does embody an exterior, vestigial echo of Le Corbusier's obsession with pilotis. Looking to the top of the structure, the semi-cylindrical roof terrace appears to be supported on a forest of slender props or pilotis, which are in fact the mullions of the core gallery's glazed, rooftop lightwell.

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[25]Ibid., p.80.
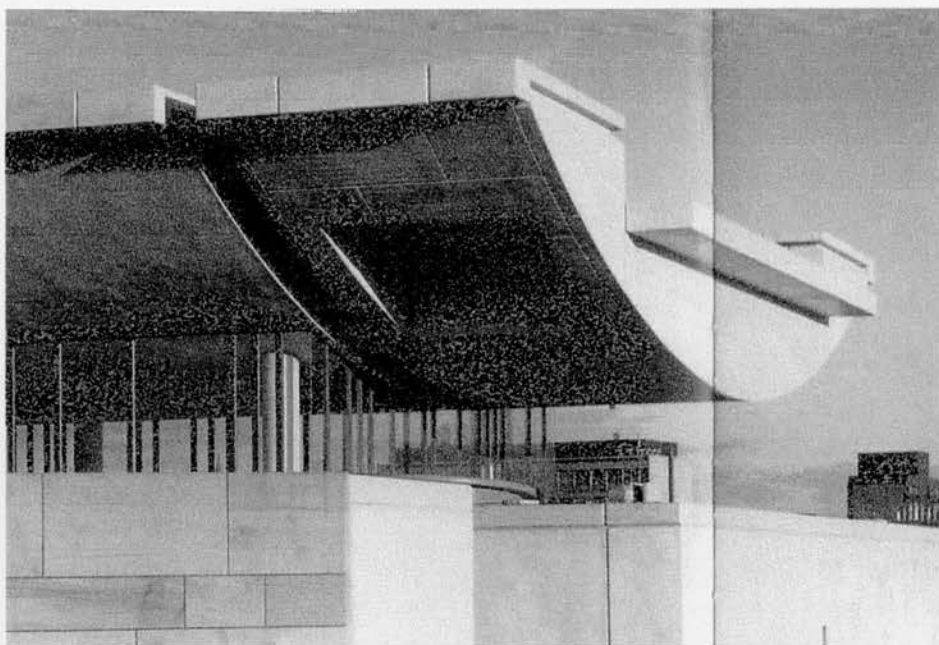
Fig. 17. Mullions beneath the MOS's roof terrace evoke Le Corbusier's pilotis.

The effect produced is similar to that at Villa Savoye: blue sky seen through the glazing and between the pilotis underneath the terrace enhances the illusion of its semi-cylindrical form floating above the bulk of the building.[26] Of course, this differs from Le Corbusier's interpretation as the props occur at the summit rather than springing from ground level, but analogously to Le Corbusier's use of pilotis, they are, naturally, not the sole support: just as he utilised an undercroft to further support the weight, so Benson and Forsyth conceal the extended internal pilotis or structural columns behind the clusters of mullions.[27]

The second of the 'Five Points' propounded by Le Corbusier is the plan libre, or free plan, which he used to describe a structural system in which interior walls could be arranged at will to fit functional demands, channel movement, or create spatial effects, because pilotis were now carrying the load.[28] All three of the casestudy museum buildings exhibit a free plan, because they all utilise framed constructions, which act as internal systems of pilotis and therefore allow the same flexibility of structural layout.

[26] Alternatively, the effect of clouds passing beneath may also conjure up images of a boat at sea.
[27] Le Corbusier tended to arrange the pilotis symmetrically, but this is not the case in the MOS. The irregular arrangement here creates a rhythmic movement, which enhances the impression of the terrace being completely separated from the rest of the building by either air or water.
[28] Far from being innovative, this idea was of course a logical extension from the new steel-framed buildings of early modernism as discussed in the previous chapter, which for the first time in modern history, allowed large, clear-span spaces to be roofed, and negated the need for interior, load-bearing walls.

The third of the 'Five Points' is intrinsically linked to the plan libre, and is the facade libre. Le Corbusier realised that the use of structural pilotis, be they revealed or not, as well as freeing the internal plan, also freed the external walls from their load-bearing function. Full advantage of this structural freedom was taken by Le Corbusier, for example in his heavily glazed 1927 design for the Central Union of Consumer Co-operatives, or 'Centrosoyus',
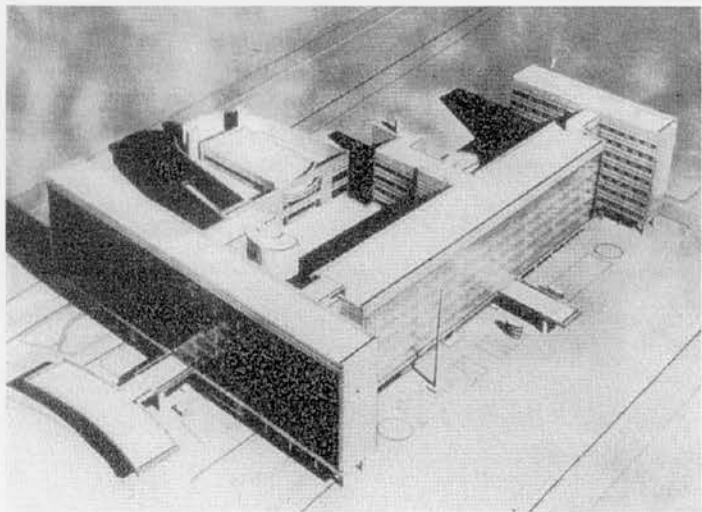
Fig. 18. Le Corbusier, Centrosoyus Building, Moscow, second project model, 1928.

and this is mirrored at the CMC and Te Papa by Douglas Cardinal and JASMAX, most notably in the great glazed facades of the CMC's Grand Hall, and Te Papa's Cable Street entrance lobby.
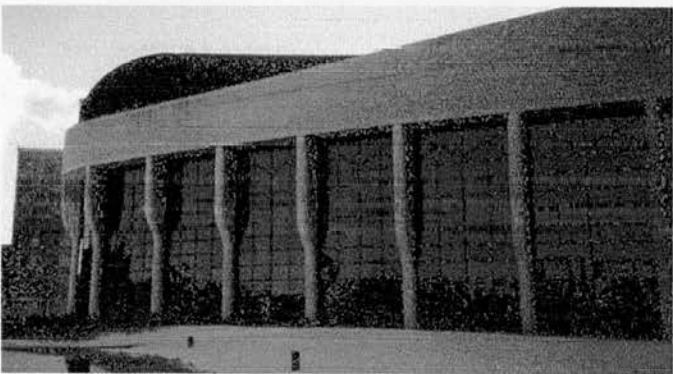
Fig. 19. Glazed façade of the CMC's Grand Hall.
Fig. 20. Te Papa's glazed entrance lobby.
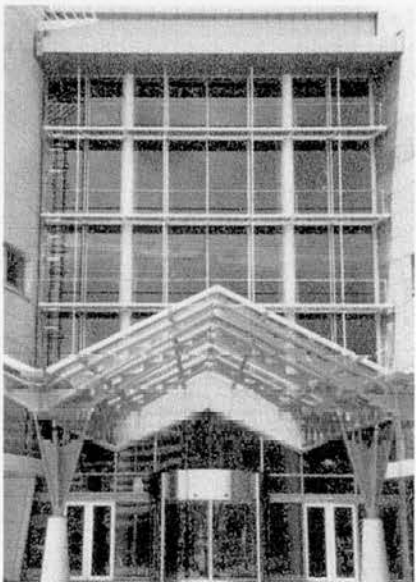
However, Benson and Forsyth's museum building exhibits a somewhat more complex approach towards the façade libre. In a typically postmodern paradox, the architects convey the visual impression that their bulky, predominantly windowless building depends for its structural integrity on the compressive property of the Clashach stone employed. In reality however, this stone merely comprises a thin veneer of cladding clipped to the reinforced concrete frame, and the only signpost to this 'deception' are the narrow gaps between each suspended panel.
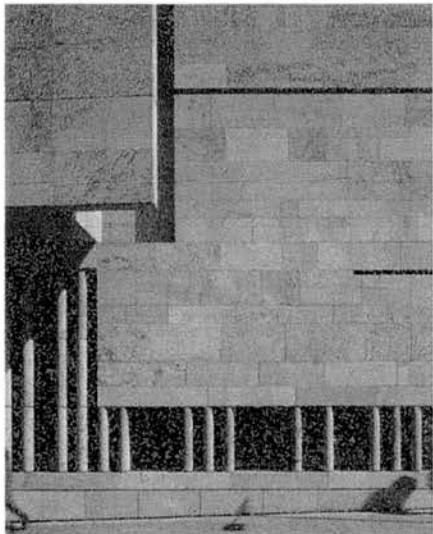
Fig. 21. The suspended sandstone cladding of the MOS.

The fourth of Le Corbusier's 'Five Points', the fenêtre en longeur or strip window, is just a more specific result of the free facade, but was used frequently and to intriguing effect by Le Corbusier. It developed as a feature in Maisons La Roche, Lipchitz, Miestchanninof, and Cook, as well as in Villa Church, before reaching its most daring manifestation in Villa Stein.
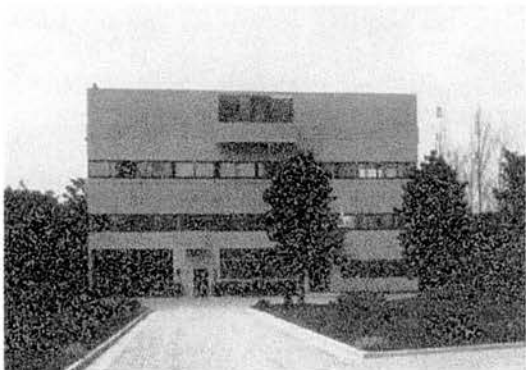
Fig. 22. Le Corbusier, Villa Stein/de Monzie (Les Terrasses), Garches, 1926-8, view from porter's lodge to main façade.

Here, the transparencies draw one into the building, whilst producing the same effect of weightlessness in the building's mass as achieved by the pilotis at Villa Savoye. This effect is produced at Villa Stein by the glazed bands or strip windows running uninterrupted across the whole width of the entrance facade. Although to a lesser extent than at Villa Stein, the strip window still has a pronounced effect on the river and Laurier Street facades of the CMC's administrative building.

Fig. 23. Les fenêtres en longeur, or strip windows, at the CMC.

Narrow, recessed 'strip' windows run for almost the entire length of both frontages at all four floor levels and are interrupted only three times over this considerable distance. In comparison to the light colour of the limestone cladding of the rest of the frontages, these strip windows are shadowy and dark, and are thus prominent elements stressing the horizontality of the building.[29]

The last of the 'Five Points' cited by Le Corbusier is the one which is most closely mirrored in the MOS. In the words of Curtis, 'the fifth point, the toît-jardin (roof garden) replaced land lost underneath the building with verdure open to sun, sky, trees and view'.[30] In an exact correspondence to this, at the MOS, 'the whole composition is topped by a white, boat-shaped hanging garden, another homage to Le Corbusier in its forms, but set back so that it does not weaken the impact of the street facades.'[31]

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[29]This device is also characteristic of the work of Frank Lloyd Wright.
[30]CURTIS, 'Le Corbusier. Ideas and Forms', p.69.
[31] MACMILLAN in Benson and Forsyth, 'Museum of Scotland', p. 113. This roof garden occupies the whole of the Museum's level seven.
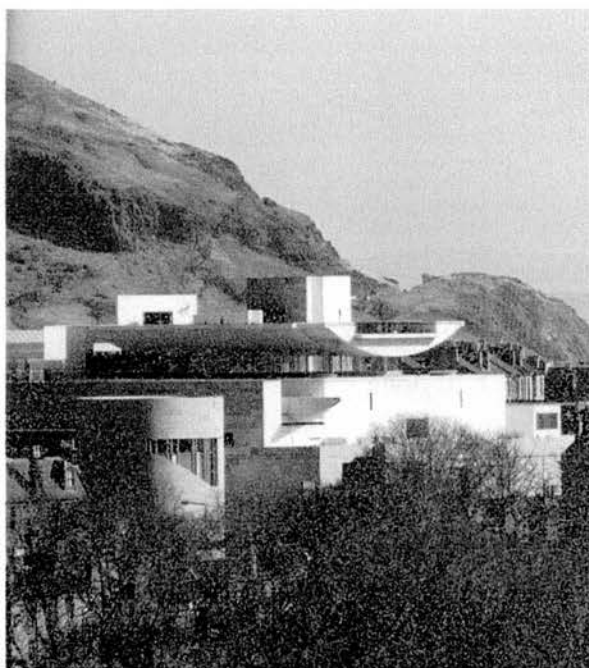
Fig. 24. The MOS's roof garden as seen from the esplanade of Edinburgh Castle.

Le Corbusier used this device repeatedly throughout his career, both in his villa period in the 1920s and 1930s, and in the monumental architecture that he produced after the Second World War. A good example from the former period is the roof terrace of the Beistegui apartment in Paris, from 1929-31, to which we will return later. From his monumental work, the roof gardens of his Project for the League of Nations in Geneva,[32] and the Unité d'Habitation in Marseilles may be seen as the most important and representative examples.
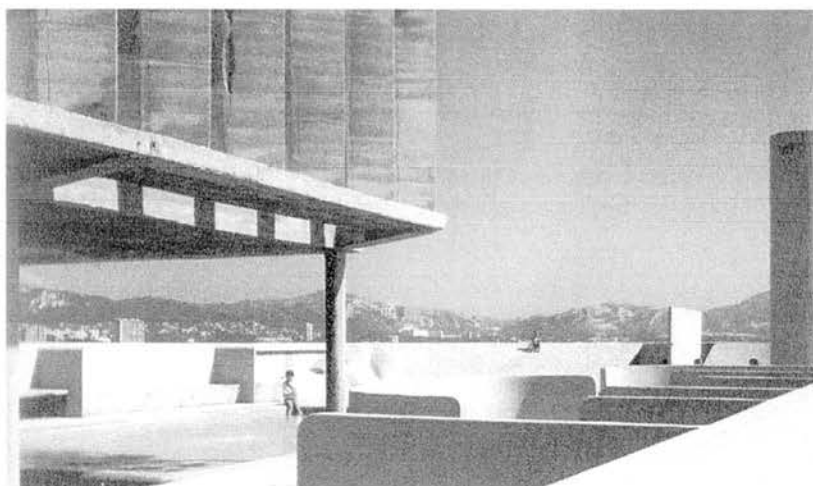
Fig. 25. Unité d'Habitation, swimming pool and children's play area on roof terrace.

[32] This was never built due to Le Corbusier's disqualification from the design competition on the dubious grounds that he had submitted prints, rather than original ink drawings.

In addition to the use of the roof garden form itself, other similarities can be detected between Le Corbusier's aesthetic and that displayed at the MOS, most notably in the corresponding symbolism. In the Geneva scheme, for instance, 'the Secretariat was crowned by a long roof terrace like the deck of a ship where delegates might go to chat, take the air, enjoy one of the most spectacular landscapes in Europe, then redescend to their offices.'[33] Analogously, the form of the Museum's roof terrace is also reminiscent of the hull of a ship, possibly echoing or affirming the port at Leith, and this intention is confirmed by the architects, who draw attention to 'the boat shaped roof and clerestorey'.[34] In practical terms, the terrace provides a bracing respite for visitors to the Museum, and with its panoramic views, creates a frame of reference for the ideas and events explored on the floors below. Looking beyond the roof terrace form, it is salient to recognise that this nautical symbolism recurs often in Le Corbusier's design vocabulary, as for example in an earlier project for the Cité de Refuge. Here, 'a more certain reference is to that of a ship. Liners were already part of the architect's iconography...'.[35] This imagery was seized upon by subsequent designers, and significantly the CMC extends this architectural tradition, as from across the Ottawa River its administrative wing is remarkably redolent of a large, light-coloured, many-windowed ocean liner.

Fig. 26. From across the Ottawa River, the CMC's administrative wing is redolent of a large ocean liner.

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[33]CURTIS, 'Le Corbusier. Ideas and Forms', p.87.
[34]BENSON, "Benson +Forsyth", *Mac Mag*, 1991, p.6.
[35]CURTIS, 'Le Corbusier. Ideas and Forms', p.102.

Associated symbolism is employed by Le Corbusier at Maison Ozenfant in Paris, where one of the mezzanine landings within the studio space resembles the bridge of a ship, whilst the funnel form of the Assembly Building at Chandigarh evokes the imagery of the ocean liner.
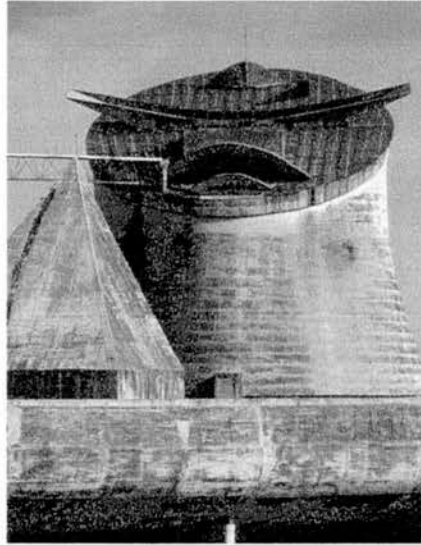
Fig. 27. Le Corbusier, Parliament Building, Chandigarh, from 1951-63, detail of roofscape showing funnel of Assembly Chamber.

It is not unreasonable to suggest that the corner tower of the MOS may also have similar connotations, although the outwardly tapering tower at Te Papa, in such close proximity to the harbour, is a more obvious example.

Fig. 28. Funnel-shaped tower at Te Papa, which overlooks Lambton Harbour.

Turning now to the interior spaces of the three museums, the most literal allusion to the modernist machine aesthetic can be seen in the MOS. As described in the previous chapter, the triple-storey-height Core Gallery space of the MOS, 'is like an industrial machine hall, with a lighter, framed structure and voids which soar up to the boat shaped roof and clerestorey',[36] and this form contextualises and conceptualises the industrial archaeology on display. Although not related to his 'Five Points', the use of such atria was also a central device in many of Le Corbusier's structures. Domestically, Villa La Roche incorporates a triple-height hall, and in Maison Cook, 'this last space (the living room) was actually double-height, and broke up through the roof garden level, to which it was linked by another small stair leading to the library adjacent to the terrace.'[37] Most redolent of the Museum's 'machine hall' or Core Gallery space however, is the Pavilion de l'Esprit Nouveau, which combines the idea of void and roof terrace, having a double height terrace with a tree passing through a hole in the roof.

The MOS responds to and reflects the machine aesthetic of architectural modernism, and particularly that of Le Corbusier. Such references in the architecture of Te Papa and the CMC, although present, are somewhat less prominent in comparison. To varying degrees therefore, all three museums have been influenced by the international modern movement, but beyond this aesthetic parallel it transpires that one of these buildings, the CMC, in fact owes its entire form to the machine.

In presenting his design concept to the CMC's selection panel, Cardinal as we saw in Chapter One, emphasized its intrinsic organicism, drawing on his own native origins and hence perceived 'connectedness' to the natural world:

> The Museum will be a symbolic form. It will speak of the emergence of this continent, its forms sculptured by the winds, the rivers, the glaciers. It will speak of the emergence of man from the melting glaciers; of man and woman living in harmony with the forces of nature and evolving with them.[38]

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[36] BENSON, "Benson + Forsyth", *Mac Mag*, p. 6.
[37] CURTIS, 'Le Corbusier. Ideas and Forms', p.75.
[38] MACDONALD, George, and ALSFORD, Stephen. 'A Museum for the Global Village', (Hull: Canadian Museum of Civilization, 1989), p. 15.

Such natural evolution was doubtless an influence, but just as telling on the Museum's final design was Cardinal's reliance on the computer. As Macdonald and Alsford explain, 'Cardinal's firm pioneered the use of computer-aided design (CAD) in Canada and was considered one of the leading firms in North America in that field, pushing CAD software to the limits of its performance and identifying new frontiers for it.[39] Indeed, the very complexity of Cardinal's curvilinear or serpentine forms had previously necessitated computer generation, as for example in his church at Red Deer, which in order to resolve the tent-like roof required the solution of 82,000 simultaneous equations.[40]
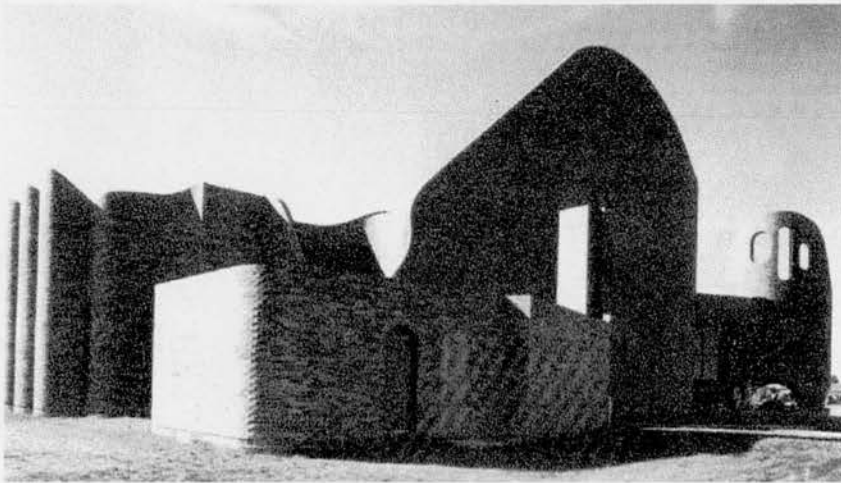
Fig. 29. St. Mary's Church in Red Deer, by Douglas Cardinal.

At the CMC, a similar level of complexity was transferred onto a dramatically larger scale, and the ultimate machine of the twentieth century, the computer, was fundamental to the form and viability of the resulting structure.

Paradoxically however, this ultimate product of the mechanistic urge of the modern age, the computer, is beginning to challenge the very confines of Modernity itself. The transferral of activity from real to virtual space is rapidly infusing the lives of everyone in the First World, and in response to this the MOS has instigated MOSAICS (Museum of Scotland Advanced Information Computer Systems) for the use of its visitors, with the CMC using MOCASIN (The Museum of Civilization Applications Supported Intelligent Network), and Te Papa also employing an equivalent system. The advertising for the MOS's package is interesting as it stresses above all else, the shifts in conception and use of space:

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[39]Ibid., p. 14.
[40]Ibid.

> Mosaics will bring to life Scotland's story in ways that previously demanded a library of books.
> Mosaics will be accessible all over Scotland and beyond, far from the Museum in Edinburgh.
> Mosaics will help and guide users to explore the evidence of Scotland's past that lies outside the Museum, as well as the Scottish Collections themselves.[41]

This system, therefore, changes the boundaries and limitations of traditional modernist space in a typically dialectical postmodernist way: in one respect shrinking a conventional library to the size of a computer terminal; but in the other, opening up the information and experience to a vastly wider national and global audience.[42] However, in the case of all three museums, this development is still a subsidiary concern to the actual museum proper, and as such it is clear that conventional modern space is still the dominant model. Despite this postmodern shift toward an exponentially increasing and reducing space, as yet the museum establishment has not escaped the confines of Modernity, with its limitations of real space.

4.2   The National Expressionist Counter-Current

In the period with which this chapter is concerned, from 1914 to the present day, the dominant strand of international thought and cultural production has been firmly grounded in rationalism, and championed by the functional machine. However, with analysis being valued over experience, and the subjective being habitually relegated to obscurity by the objective, simplified, and verifiable, many believed that an important part of humanity had been stifled, or maybe even removed. One critic in particular, Mumford, attempted to illuminate what he saw as the illogicality and potentially harmful nature of an unquestioning adherence to this objective rationale. In his treatise 'From Revolt to Renewal', Mumford drew attention to the blind one-sidedness of this mechanistic approach, declaring that, '...the final result was a civilisation as badly unbalanced on the side of the new, the mechanical, the anti-human, as the Middle Ages, in their decay, had been unbalanced on the side of the traditional, the obsolete, the effete, the unadventurously sane.'[43] For Mumford as well as many other

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[41]'Mosaics. Scotland's History in the Making'. Leaflet designed by National Museums of Scotland Exhibitions Office; Illustration by Dianne Lumley.
[42]This can also be seen as shrinking the world to 'the global village'.
[43]MUMFORD, 'From Revolt to Renewal', in 'Lewis Mumford at 100', p. 33.

critics, this imbalance towards the 'mechanical' and the 'anti-human' inevitably led to the horrors of the trenches in the Great War and encountered its most extreme and evil manifestation during the Second World War in the genocide of the holocaust:[44]

> This change in the direction of our civilisation [away from the objective] has long been overdue; and the proof that it is overdue lies in the wholesale miscarriage of human hopes and plans that has taken place during the last fifty years: a miscarriage that has caused the Century of Progress, as people fondly called the nineteenth century, to give way to half a century of savage regression.[45]

Returning to the aesthetic debate, Mumford argued that, 'the error of these artists, [the rationalists] an error pushed to its logical end in the polemics of Le Corbusier, did not consist in their thinking that the machine was important; their error lay in thinking that nothing else was important.'[46] From this general position, Mumford then articulated what he saw as being the harmful results of this all-encompassing cult of the machine on architectural modernism:

> In architecture it is accompanied by a special effort to give every building, no matter what its purpose, the neutrality, the machine-like quality, the bleak, colourless aspect of a factory building, housing machines whose products are never touched by human hands: the absence of color, texture, visible symbols of any kind, becomes the very test of esthetic sincerity.[47]

However, true once again to Adorno's 'dialectic of enlightenment', this 'neutrality' and 'machine-like quality' was sustained by the presence of an antithetical aesthetic movement, which blossomed coincidentally with the machine aesthetic and lingered throughout the rest of the twentieth century:

> National Romantic ideals emerged in several parts of Europe just before the turn of the century and remained active in some cases until the 1920s. They also exerted an influence in the United States, particularly in the Midwest (the 'Prairie School') and in the southwest. *They resurfaced later in the twentieth century under different guises, usually when it was a question of affirming a distinct cultural identity.*[48] [My italics]

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[44]To quote Adorno: 'This machinery needs the Jews'. [ADORNO and HORKHEIMER, 'Dialectic of Enlightenment', p. 185.]
[45]MUMFORD, 'From Revolt to Renewal', in 'Lewis Mumford at 100', p. 20.
[46]Ibid., p. 31.
[47]Ibid., p. 35.

This reaction first took the form of Expressionism,[49] which began as an artistic movement in Germany at the turn of the century, and consciously promoted subjectivity, its protagonists relying '...on impulse and feeling for their emotional use of colour and line...'.[50] Its many famous practitioners included Gaugin, Munch, and Matisse,[51] but in many ways the post-war work of Otto Dix, conveying his disillusionment and disgust at the horrors and depravities of the First World War,[52] best symbolise this disparate movement and its reaction against rationalism.[53]
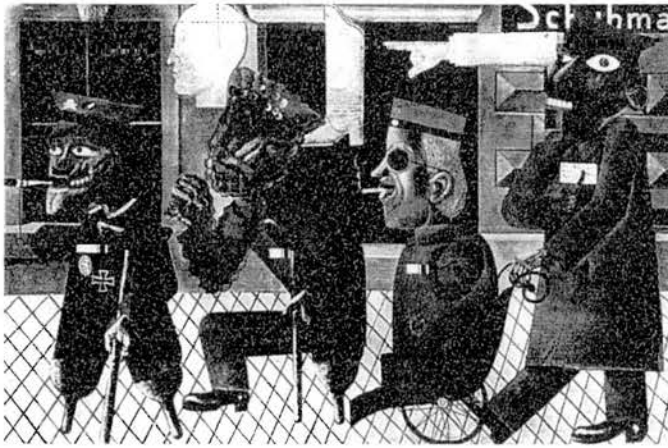
Fig. 30. Otto Dix, 'The War Cripples (with Self-portrait)', 1920.
Fig. 31. Otto Dix, 'The Scart Players'.

However, it was not Expressionism alone that led the artistic resistance against the dominant functional mechanism of the modernist paradigm. Dadaism, and particularly Surrealism, were deeply anti-rationalist, the latter being characterised by a fascination with the bizarre, the incongruous, and the irrational. This approach is exemplified in the words of the poet, Lautréamont (1846-70), who provided inspiration for the movement: 'Beautiful as the chance encounter of a sewing machine and an umbrella

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[48] CURTIS, 'Modern Architecture Since 1900', p. 132.

[49] 'In its loosest sense, the term [expresssionism] can be appled to art of any period or place that elevates intense subjective reactions above the observation of the external world'. [CHILVERS, OSBOURNE, and FARR, (Eds.), 'The Oxford Dictionary of Art', p. 171.]

[50] Ibid., p. 171.

[51] Matisse said, 'what I am after above all is expression ... The chief aim of colour should be to serve expression as well as possible ... To paint an autumn landscape I will try to remember what colour suits the season; I will be inspired only by the sensation the season gives me'. [Ibid., p. 172.]

[52] Ibid., p. 146.

[53] Bound up with this, was a loss of belief in that central tenet of Modernity, *progress*, which in turn led to a rejection of other ideas crucial to the modern era. To quote Giddens, 'loss in a belief in "progress," of course, is one of the factors that underlies the dissolution of "narratives" of history.' [GIDDENS, Anthony. 'The Consequences of Modernity', (Cambridge: Polity Press, 1990), p. 10.]

on an operating table', and undoubtedly, 'with its stress on the marvellous and the poetic, Surrealism offered an alternative approach to the formalism of Cubism and various types of abstract art...'.[54]
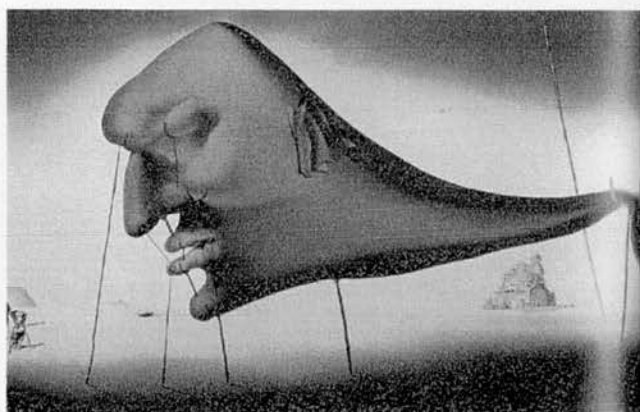
Fig. 32. Salvador Dali, 'Sleep', 1937.
Fig. 33. René Magritte, 'The Human Condition I', 1933.

This influential, albeit loose 'movement' of Expressionism also impacted on architecture, with Behrens, Poelzig, and Berg initiating it prior to the First World War. In the post-war years, many of the great fathers of modernism: Gropius; Taut; Mies van der Rohe; and even Le Corbusier, flirted with the style, but it is probably the strange and curvaceous Einstein Tower by Mendelsohn located in woods near Potsdam, or Poelzig's Großes Schauspielhaus in Berlin with its 'stalactite' roof, which are most indicative of the genre.

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[54]CHILVERS, OSBOURNE, and FARR, (Eds.), 'The Oxford Dictionary of Art', p. 483.
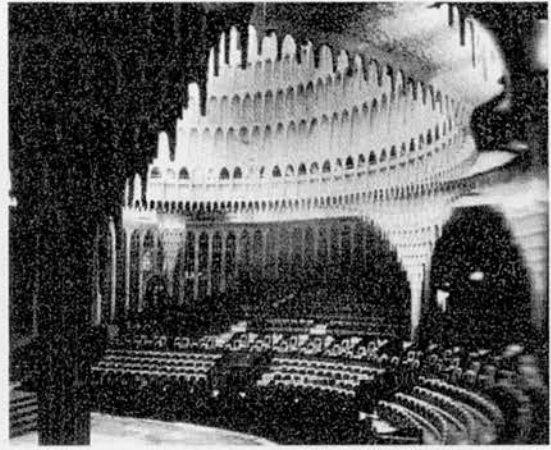
Fig. 34. Erich Mendelsohn, Einstein Tower, Potsdam, 1920-4.
Fig. 35. Poelzig, Großes Schauspielhaus, Berlin, 1918-19.

Turning to the museum buildings, it is intriguing to find that despite having 'stolen' many of Le Corbusier's rational and functionalist forms for use in the MOS,[55] Benson and Forsyth also looked to his 'expressionist' work for inspiration. An excellent example of this relates to the roof terrace of the Beistegui apartment in Paris, from 1929-31, which demonstrated Le Corbusier's then new found interest in Surrealism. To quote Curtis, 'Surrealism revealed a new pattern of oddities to Le Corbusier, just as Picasso and Léger unlocked the power of chiaroscuro and monumentality in the handling of a wider range of emotions and impulses.'[56] He then relates that:

> At one end [of the Beistegui roof terrace] there was a false Rococo fireplace, on the mantelpiece of which the Arc de Triomphe seemed to sit like an objêt trouvé turned into a clock. Of course, Beistegui's sophisticated guests would have recognised the reference to Magritte's Surrealist paintings immediately they arrived on the roof, drinks in hand.[57]

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[55] According to Gordon Benson at the Robert Gordon University, 'Museums and Cultural Identity', Heritage Convention, "Great architects don't crib, they steal!"
[56] CURTIS, 'Le Corbusier. Ideas and Forms', p.109.
[57] Ibid., p. 110.
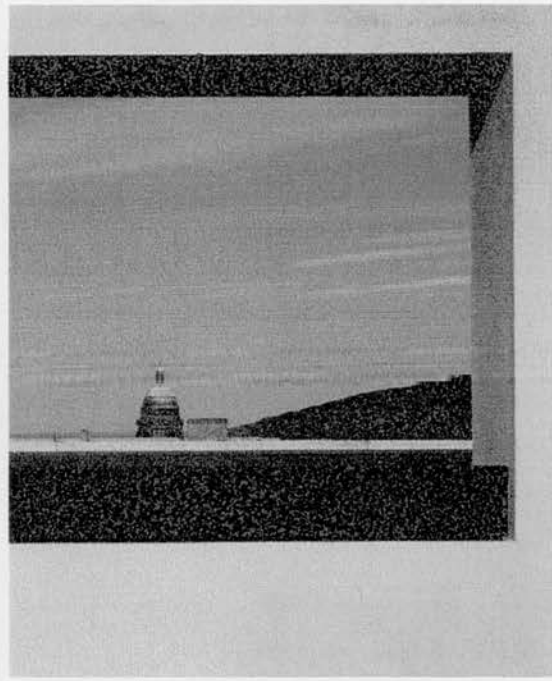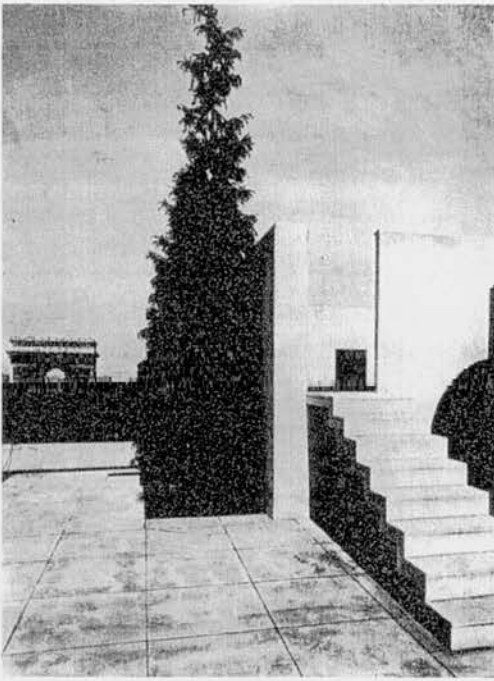
Fig. 36. Beistegui apartment, Paris, 1929-31, roof terrace with the Arc de Triomphe in the background.
Fig. 37. MOS's roof terrace framing the dome of Edinburgh University's Old College.

In a sophisticated, if self-conscious reference to this reference, Benson and Forsyth arranged an analogous view from the Museum's roof terrace, in which Rowand Anderson's dome of Edinburgh University's Old College appears to sit on a rectangular concrete plinth, framed by the sky. The statue on top of this dome, titled, 'Youth Bearing the Torch of Knowledge', also ironically highlights the Museum's role as educator.[58]

Alongside this subjective, expressionist approach which formed an antithesis to the dominant objectivity of the age, the early decades of the twentieth century also witnessed a general upsurge in nationalism. This began as a political shift,[59] but soon a nationally Romantic impulse arose in the cultural sphere, in stark contrast to the internationalism of the machine aesthetic, which with its pan-cultural ambitions, 'was supposed to be privy to some esperanto of expression, transcending countries and

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[58] This device of framing in order to capture and incorporate the implications of a site within the fabric and mythology of a building, was well known to, and often utilised by Le Corbusier. Indeed, at Villa Church he produces, '...a controlled set of movements inside offering vignettes of nature', [CURTIS, 'Le Corbusier. Ideas and Forms', p. 79]. Similarly, at his chapel at Ronchamp the apertures of various sizes which are set into the wall, as well as enclosing particular rural vistas, allow entry at different times of the day to squares and rectangles of light, which play on the solid, dark interior walls. In such a way, Le Corbusier was 'connect[ing] the interior to the magnificent views', as Benson and Forsyth have managed to do.
[59] In Scotland, for example, this appeared first in the thirty years before 1914.

conventions, and rooted in central structures of the mind'.[60] As seen in Chapter Two, the National Romantic movement had been propagated in the previous century by Walter Scott, and the tradition was subsequently kept alive through the ideas of critics like John Ruskin and Viollet-le-Duc.[61] To quote Curtis, such National Romanticism,

> was concerned with the character, climate, and culture of particular places, with national myths and territorial continuities. It responded to currents of nationalism in the political culture around the turn of the century, and represented a reaction against both the uprootedness and homogeneity of industrialism and the imposition of cosmopolitan formulas derived from the classical Beaux-Art.[62]

It championed the national, vernacular, and individual, over the international, industrial, and cosmopolitan, and unlike the mainstream rationalism of the time, valued myth and the subjective imagination. Inevitably architecture was affected by this national, expressionist counter-current, and critically, Scotland, possibly for the only time in its history, was at the forefront of this avant-garde. This position was substantially due to the work of one man: Charles Rennie Mackintosh,
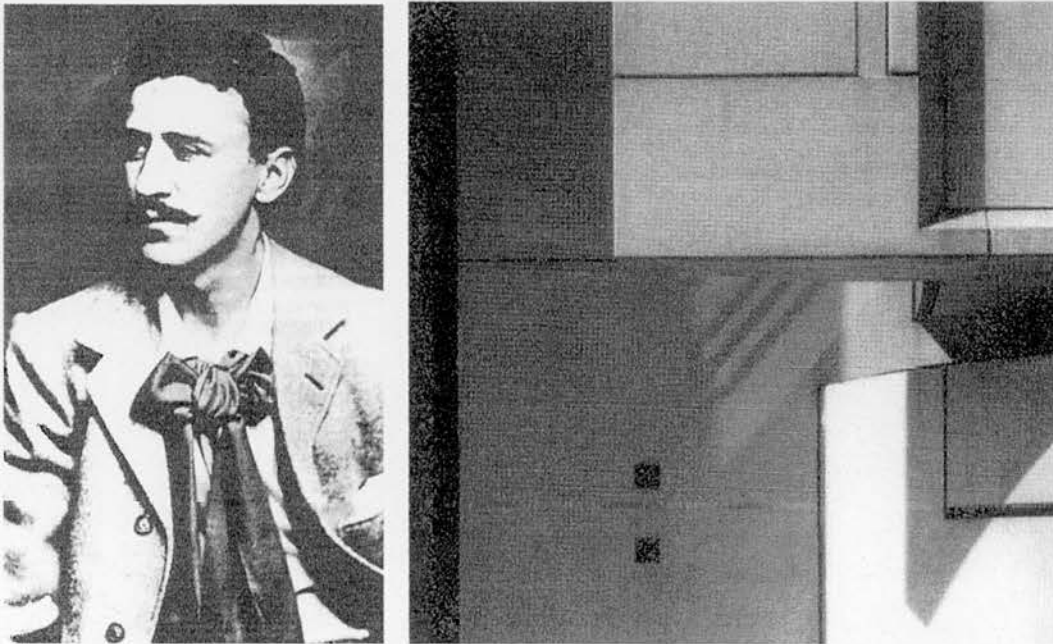
Fig. 38. Charles Rennie Mackintosh, 1868-1928.
Fig. 39. Detailing such as this at the MOS is clearly evocative of Mackintosh's style.

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[60] CURTIS, 'Modern Architecture Since 1900', p. 150.
[61] In 1853 Ruskin wrote, 'The nobility of each building depends on its special fitness for its own purposes; and these purposes vary with every climate, every soil, and every national custom'. In Britain, this philosophy is evident in the output of the Arts and Crafts movement.
[62] CURTIS, 'Modern Architecture Since 1900', p. 131.

and Allan's claim that, 'the echoes of ... Mackintosh are clearly audible' within the architecture of the MOS, is worthy of investigation.

For Mackintosh, like his contemporary Antonio Gaudi, the assertion of a distinct nationally identifiable architecture was paramount because of the disparity between nation and state in Scotland, as in Catalonia, at the turn of the twentieth century. He then fused this national aesthetic with the individuality and creativity of Expressionism, to create a National Romantic style. However, had Mackintosh not also been an innovative and committed modernist, it is doubtful whether he would have come to prominence and remained so influential in the intervening years since his death. Hill House in Helensburgh provides an excellent example of this dualism at the heart of Mackintosh's architecture, which as will be seen, is echoed in the design for the MOS.

In 1902, the publisher, Walter Blackie, commissioned Mackintosh to design a family home for him in Helensburgh above the Clyde, and putting aside formal constraints, Mackintosh centred the design around the family's particular domestic needs. In so doing, plan form rather than elevational considerations generated his design concepts, and as a consequence of this pragmatic personalisation of interior space, the house's facades were chaotically irregular.

Fig. 40. Charles Rennie Mackintosh, Hill House, Helensburgh, 1902-

For example, in addition to the obvious resultant asymmetricality, almost fifty different window designs were incorporated into what is only a modestly sized building, producing dramatically erratic elevations. The casual nature of these irregularly pierced and massed elevations evoked traditional Scottish fortified and early domestic building, which was often piecemeal or 'organic', having responded and adapted to changing needs and conditions over time. This intimation of the Scottish vernacular tradition was consciously augmented by Mackintosh through his use of towers, turrets, and crowstepped gables, constructed from stone, and often harled. Hill House, therefore, is a clear example of this dualism or paradox in Mackintosh's architecture, in which the functionalism of architectural modernism produced an aesthetically indigenous and nationally Romantic result.

An analogous approach is discernible at the MOS, the architects of which describe themselves as 'contextual modernists'. As Gordon Benson elaborated, 'they say that a classicist designs from the outside in, and a modernist from the inside out',[63] and it is clear therefore that they, like Mackintosh, intended to let interior functional requirements dictate the building's appearance. This ambition contrasts sharply with the situation at the CMC, in which the architecture was developed first, before an exhibition plan had even been devised. This left the curators and exhibition designers to adapt their ideas to the already existing spaces, as described by Macdonald and Alsford: 'Like the Grand Hall, the History Hall is a long and relatively narrow space, 97' (29m.) wide; this suggested the type of exhibition for it.'[64] Revealingly, on their fact-finding mission to the CMC prior to the appointment of an architect, the MOS's Board of Trustees and selection panel were very scathing about this approach, reporting that, '... Douglas Cardinal, in the Museum of Civilization in Ottawa, has provided caverns of space which have proved exceptionally difficult, so far, to articulate for effective museum displays.'[65]

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[63]McKAY, Ron, "Resigned to Controversy", *Scotland on Sunday*, 18th August, 1991.

[64] MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 94.

[65]DOWSON, 'A New Museum for Scotland', p, 27. Interestingly, this was indeed the case, despite the CMC Architecture and Planning Group's earlier realisation that, 'balance must be sought between the wish to make a profound architectural statement and a more pedestrian solution to the complex functional requirements of the museum. The objective is neither to build an architectural showpiece insensitive to museological needs, nor to build a purely functional museum lacking in architectural delight. A magical integration of museum functions with stimulating physical forms, is essential for yielding lively and progressive museum experiences.' [Architecture and Planning Group, National Museums of Canada. 'Architectural Programme Synopsis', shortened version, (Ottawa: National Museums of Canada, 1983), p. 14.]
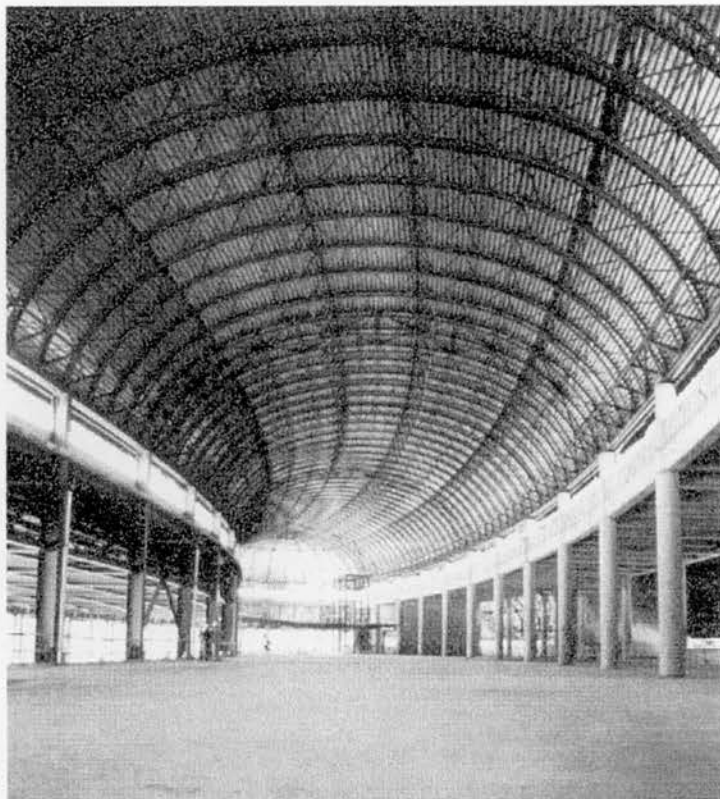
Fig. 41. The History Hall's shell prior to exhibition design.

At the MOS, the functional requirements of the exhibition brief did substantially inform the design.[66] For example, the restriction that the Museum be 'object specific' affected the building both on the grand scale, the structural grid having to be at least 7.5 metres squared to accommodate the largest artefacts, and on the small scale, with the inclusion of hundreds of niches and display areas for the smaller pieces. Perhaps the most stringent of the programmatic demands however, was the exclusion of most direct sunlight from display areas in order to protect the Museum's artefacts from the harmful effects of ultraviolet rays. This resulted in all three facades being predominantly windowless, and just as we saw in Hill House, the combined requirements of the brief led to the overall asymmetricality and random massing of the building's elevations, as well as to the variety and intermittent spacing of its openings.

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[66] However, as discussed in Chapter Three, the architects did have a predetermined inclination to construct the Museum from primary solids regardless of the architectural or exhibition brief.
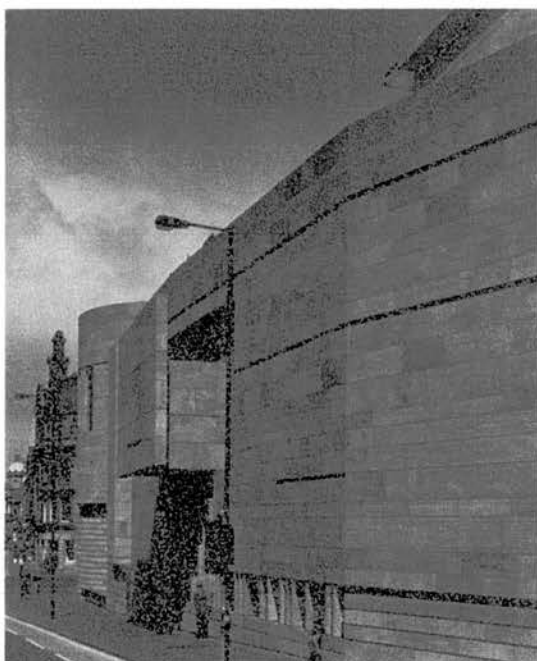
Fig. 42. Example of the lack of windows and random massing on the MOS's western elevation.

Beyond this, the informality of the external facades is further enhanced by a hierarchical 'sign language' of stone cladding, including 'solid',[67] veneered, and corner stones, which as Gordon Benson acknowledged at the Robert Gordon University Heritage Convention, were included as a conscious reference to the work of Mackintosh.
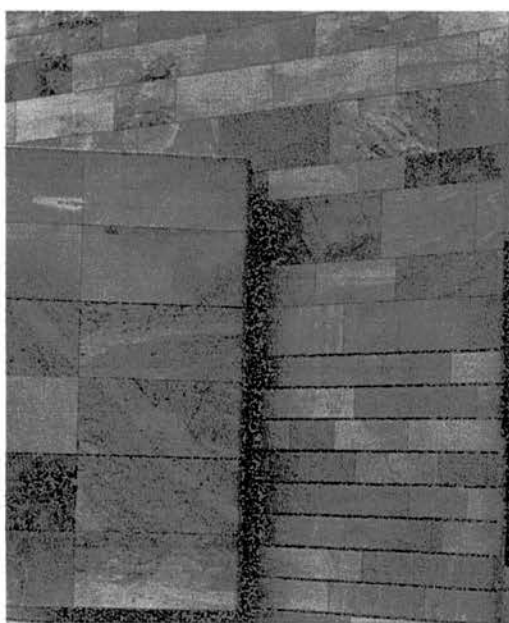
Fig. 43. 'Hierarchised' or differentiated stone cladding at the MOS, as an intentional reference to Mackintosh.

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[67] These stone panels are suspended with no gaps between each one.

Similarly, the very materials and forms chosen by Benson and Forsyth continued this nationally Romantic homage to Mackintosh's buildings, and this connection is well decoded by Macmillan:

> But the remaining façade along the narrow cul-de-sac of Bristo Port to the south is white-harled, or white concrete which is pretty much indistinguishable, and so are the upper levels of the building that rise above and behind the main street facades. The junction of stone facing with harled walls is a common feature of traditional Scottish building and one that Mackintosh and Lorimer also regularly used. This partly hidden southern façade closed by a tall lift tower in the angle it makes with the old museum also uses apparently random windows and other details reminiscent of Mackintosh, but also of Le Corbusier and even suggests a link between them.[68]

Fig. 44. The juxtaposition of white concrete and sandstone facing on the MOS's southern elevation.

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[68] MACMILLAN, in Benson and Forsyth, 'Museum of Scotland', p. 113.

In fact such a link is conspicuous, as later in his career Le Corbusier embraced Expressionism.[69] This influence is most notable in his chapel at Ronchamp, where the carved quality of his work is emphasised.

Fig. 45. Le Corbusier, Chapel of Notre-Dame-du-Haut, Ronchamp, 1950-4.
Fig. 46. Interior of the Chapel of Notre-Dame-du-Haut.

The curvaceous walls of this structure remodel from exterior to interior facades, and this fluidity and sculptural quality is enhanced by the use of the same material inside as out. Similarly, the fluctuation in the thickness of the walls increases the effect of the whole having been moulded into shape, and this is intensified by the cumbersome and strange roof structure. The architecture of the MOS shares a certain sculptural, carved-out quality with this work of Le Corbusier, and several factors combine to produce this effect. Firstly, the fact that much of the structural work is actually in-situ concrete, moulded by wooden formwork into the shape required, means that the museum not only appears to be, but to some extent actually is a cast. Secondly, the building is surrounded by an angled, membrane-like curtain wall, the facades of which are predominantly windowless, and this has the effect of making the building look whole and hollowed out.

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[69] The seeds of this moulded style can be seen as early as 1923-25, in Maisons Lipchitz and Miestchanninof: 'Compared to the slightly earlier Ozenfant design (Villa Roche), these buildings were chunkier and even more massive, as if deliberately evoking the facets of a Cubist sculpture.' [CURTIS, 'Le Corbusier. Ideas and Forms', p. 74.]
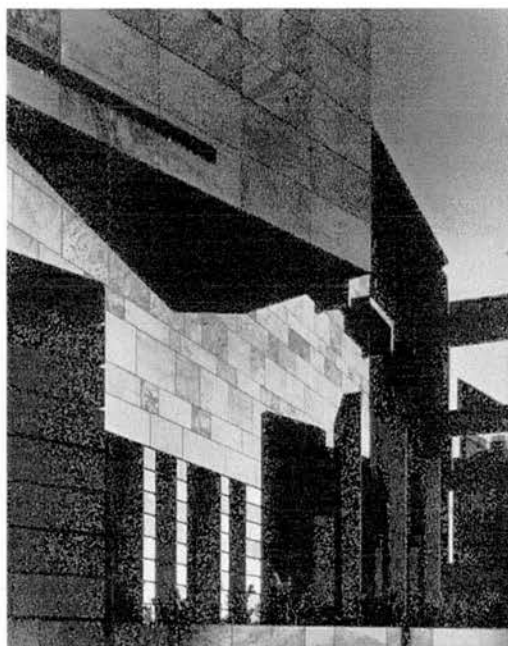
Fig. 47. The 'moulded' form of the MOS's curtain wall.

In the words of Macmillan, 'with a memory of Ronchamp, but of the architects' own oratory in Cumbria too, narrow windows admit a mysterious light. Drama of architecture and drama of history enhance each other'.[70] Lastly, the use of the exterior stone cladding in the interior of the building provides a strong link between inside and out, creating a sense of the building as a single entity.
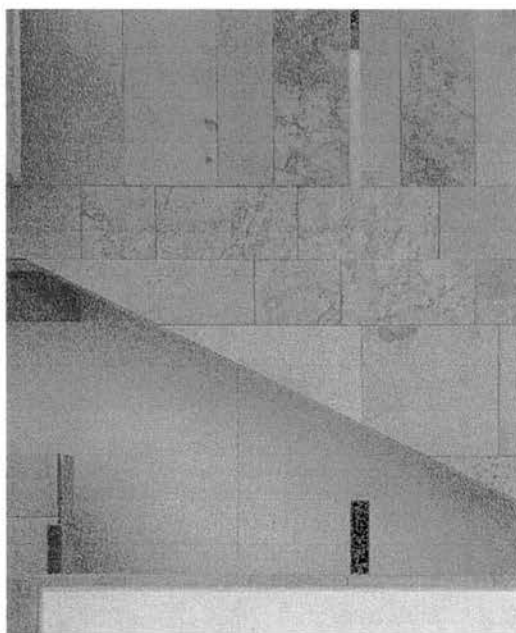
Fig. 48. The main stairway leading from the MOS's internal orientation court is screened with the same sandstone as the building's exterior.

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[70]MACMILLAN, in Benson and Forsyth, 'Museum of Scotland', p. 117.

Indeed, this overall impression has not gone unnoticed, as Marcus Binney writes in The Times, 'the Benson and Forsyth proposal is a powerfully sculptural design in the manner of late Corbusier and certain art museums in the South of France'.[71]

Returning to Mackintosh however, there seems little doubt that the MOS exhibits a 'friendly', 'human', and 'domestic' appearance in the manner of his buildings, in contrast to the machine aesthetic with its 'homogeneity of industrialism' and 'imposition of cosmopolitan culture'. Indeed, the honey colour and grainy texture of the Museum's sandstone cladding substantially avoid the 'neutrality', or 'blank colourless aspect' of the mechanistic architecture so reviled by Mumford. The most recent manifestation of this machine aesthetic, 'high-tech' architecture, emerged in the 1980s and was championed by Richard Rogers, Renzo Piano, and Norman Foster. Although varying somewhat in their approach, all three men have embraced and idealized technology, with Foster zealously declaring it, 'not an exploitation of nature, but a fusion of nature and the human spirit into a new kind of creation which transcends both'.[72]
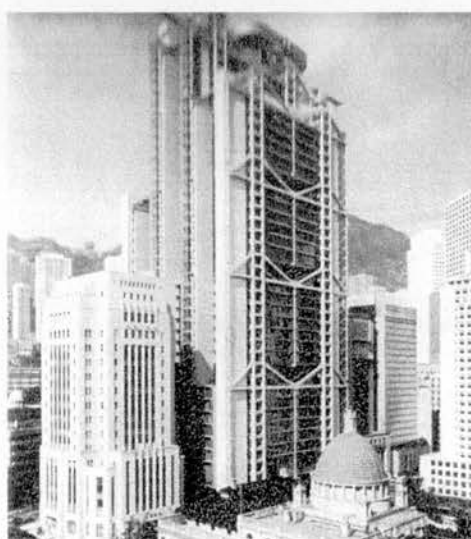
Fig. 49. Richard Rogers, Lloyds Building, London, 1978-86.
Fig. 50. Norman Foster, Hong Kong and Shanghai Bank, Hong Kong, 1979-85.

Benson and Forsyth are somewhat disparaging of this 'high-tech' genre however, likening it to body-building,[73] and this attitude is conveyed in their architecture.

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[71]TAIT, Simon, "Shape of Scotland's Museum for the 21st Century is Unveiled", *The Times*, 14 August, 1991.
[72] CURTIS, 'Modern Architecture Since 1900', p. 658.
[73]McKEAN, Charles. 'The Making of the Museum of Scotland. Draft Text on the Museum of Scotland', p. 5.5.

Unlike the many 'high-tech' edifices which have been constructed over the last twenty years, the MOS is neither at the forefront of material science nor building technology, but instead emphasises and promotes the traditional values of good workmanship and well-tested techniques. To illustrate this, it is worth considering the use of in-situ cast concrete and plaster work within the building, both traditional techniques, which were carried out with meticulous care and attention. Firstly with regard to the use of concrete, the wooden frames were made by hand to a very high specification of smoothness, before the concrete was poured. The resultant finish, in nearly all cases, was flawless. In a similar quest for quality of finish more akin to traditional, medieval values of craftsmanship than the cutting edge of progress, all the plaster work within the Museum was carried out by left-handed plasterers, in order to ensure uniformity and excellence of the finished surface texture.
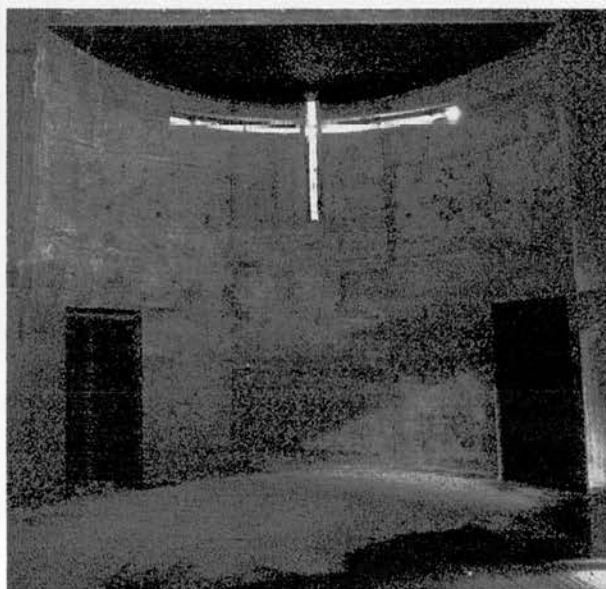
Fig. 51. The 'in-situ' concrete 'Rotunda' of the MOS's Medieval Church display before being plastered.
Fig. 52. Immaculately smooth plasterwork in the MOS's 'Rotunda'.
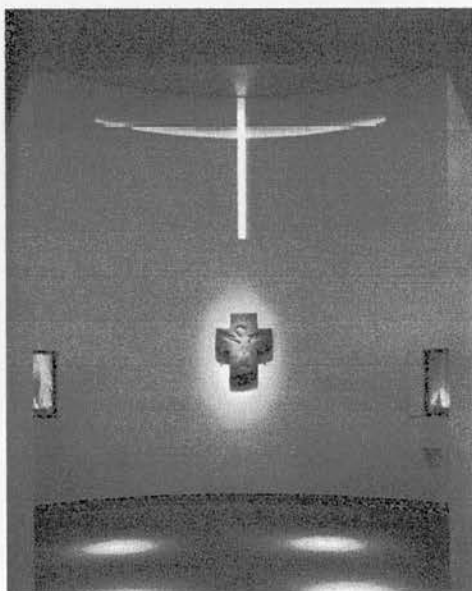
However, as Macmillan precisely articulates, despite this repudiation of some aspects of the modernist machine aesthetic, the nationally Romantic aesthetic at the MOS is achieved in balance with the same rationalist principles of architectural modernism adhered to by Mackintosh:

> Gordon Benson and Alan Forsyth, by thinking deeply and imaginatively about the Museum, where it is, what it represents and what it has to contain, have created a truly modern building that really is sociable in the way that modern buildings rarely are, least of all built on this scale. And as it captures this quality in Scottish castles and townscapes, the Museum also invokes

Mackintosh, for he did this too. Right at the beginning of the modern movement Mackintosh saw how these characteristics balanced sociability and individualism, and so here if the references are designed to emulate these qualities in traditional architecture, the language has an impeccable modern pedigree.[74]

At the MOS, a National Romantic sentiment has been evoked through the metaphorical transformation of the indigenous built environment, but the natural environment was to be an equally rich source for the advocates of this national, Expressionist counter-current. Describing the National Romantic movement at the start of the twentieth century, Curtis wrote,

> Inspiration was even sought in the landscape itself, for example in typical plant or rock formations. In these cases, 'nature' was implicated in myths about the roots of culture in particular geographies. It is scarcely an accident that this obsession with the land and its meaning should have emerged at precisely the same time that industrialization was rapidly destroying rural traditions.[75]

At the turn of the twentieth century, these ideas and motifs strongly informed Art Nouveau, and were also assimilated by members of the 'Prairie School', continuing in later decades in the form of Frank Lloyd Wright's monumental organicism.
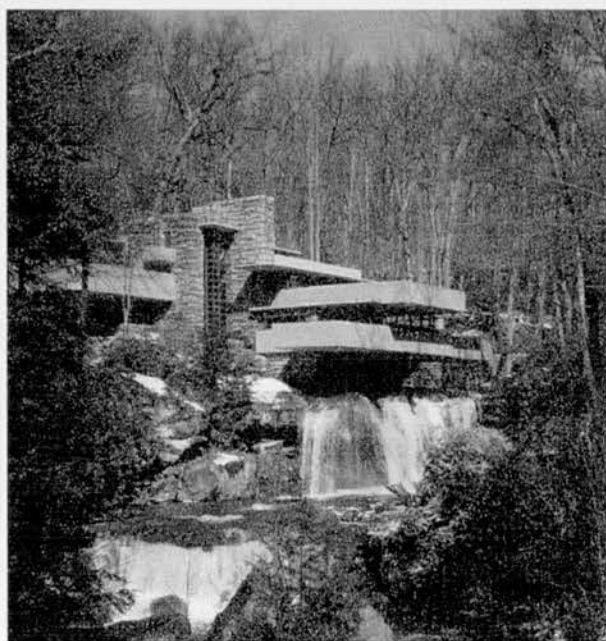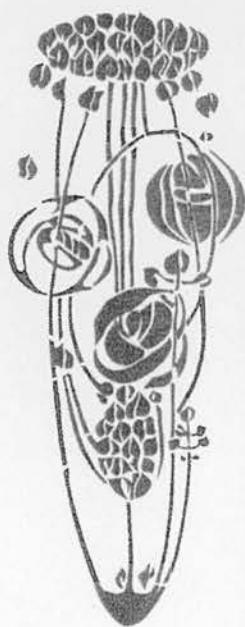
Fig. 53. An organically-inspired Art Nouveau design by Charles Rennie Mackintosh.
Fig. 54. Frank Lloyd Wright's commission for 'Fallingwater', Bear Run, Pennsylvania, 1934-7, echoing the rock strata of the site.

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[74] MACMILLAN, in Benson and Forsyth, 'Museum of Scotland', p. 114.
[75] CURTIS, 'Modern Architecture Since 1900', p. 132.

The architecture of the CMC is manifestly an extension of this tradition, evoking as it does the 'rock formations' of the Canadian Shield and plains, as well as the natural glaciers, which helped to sculpt these vast forms.
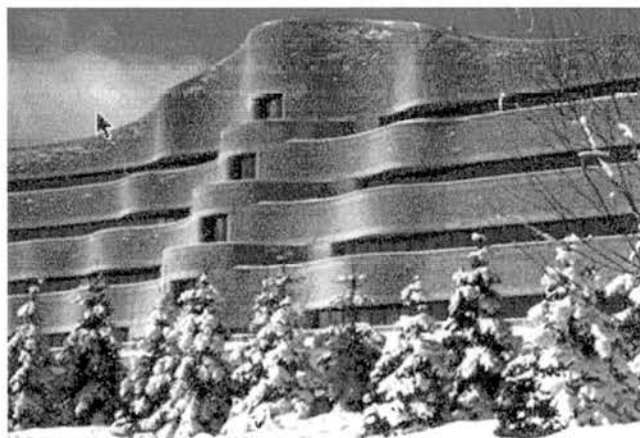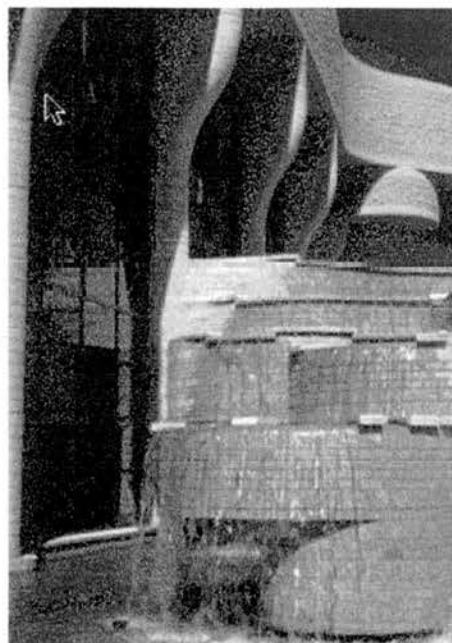
Fig. 55. The CMC's 'natural' watercourse, or waterfall feature.
Fig. 56. The CMC's administrative wing inspired by the geology of the Canadian Shield.

Although almost a century on from the National Romantic development to which Curtis refers, Cardinal was most definitely implicating "nature' ... in myths about the roots of culture in particular geographies', a device which as seen in Chapter One, carries particular strength in the Canadian context. JASMAX also, albeit to a lesser extent, have exploited this same nostalgia for a natural, pre-industrial landscape through their architectural evocation of a fault line, Ruamoko, and sea cliffs.

Therefore, although modernism and the machine aesthetic dominated cultural and artistic production in the period from 1914 to the present day, an antithetical National Romantic movement has survived in parallel. Unsurprisingly perhaps, this National Romantic influence is prominent in the national museums investigated, confirming Curtis's contention, quoted above, that, 'National Romantic ideals ... resurfaced later in the twentieth century under different guises, *usually when it was a question of affirming a distinct cultural identity.*'[76] [My italics]

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[76] Such assertion of a national cultural identity is inevitably a key role of the contemporary national museum, and crucially, can impact on or reflect the political climate: 'They [Benson and Forsyth]

4.3   Postmodernism

Few, if any, themes have dominated intellectual enquiry over the last forty years to the extent of postmodernism, and this pervasiveness is doubtless due to the numerous disciplines to which the term applies, as well as to its inherent vagaries. Architecture has been substantially influenced, both theoretically and practically, by this new direction, which is defined as having attempted '... to restore meaning to architecture by the re-introduction of conventional architectural elements, and to be more pluralistic by enlarging the repertory of styles and forms available to the designer'.[77] Moore and Johnson initiated this theoretical debate, before Venturi added 'ambiguity' and 'irony' to the mix.[78] In 1977, Blake satirised architectural modernism, asserting that, 'Form Follows Fiasco',[79] and in the same year Jencks produced the convenient, if somewhat simplistic categorisation that, 'modernists were interested in 'univalent', post-modernists in 'multi-valent', or 'double-coded', imagery; modernists in universal truths, post-modernists in history and local context; modernists in technology and structure, post-modernists in the vernacular, the metaphorical and in a new kind of ambiguous space'.[80] Such postulations have been most notably concretised by Johnson, Stern, Moore, Graves, Hollein, Eisenman, Rossi, Krier, Portoghesi, and Bofill, although many others could lay claim to inclusion in this roll.

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have ... made a building on that site that really does work as a focus for the kind of cultural energy that has given Scotland back its parliament.' [MACMILLAN, in Benson and Forsyth, 'Museum of Scotland', p. 111.]

[77] LAMPUGNANI, (Ed.), 'Dictionary of Twentieth Century Architecture', p. 269.

[78] These ideas, along with many others, were introduced in his text, 'Complexity and Contradiction in Architecture' (1966), and were further expanded and supplemented in his subsequent publication, 'Learning from Las Vegas' (1972), which he co-authored with his wife, Denise Scott Brown, and Steven Izenour.

[79] This was the title of his publication.

[80] LAMPUGNANI, (Ed.), 'Dictionary of Twentieth Century Architecture', p. 271. This commentary is derived from Jencks's book entitled, 'Language of Post-Modern Architecture'.
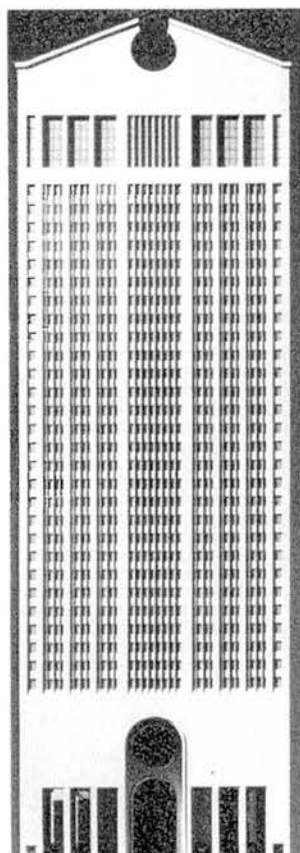
Fig. 57. Michael Graves, Portland Building, Portland, Oregon, 1980-3.
Fig. 58. Johnson and Burgee, AT&T Building, New York, 1978-83.

In terms of the museum case-studies however, it is postmodernism in its more generic sense which is of most interest. In its widest possible appreciation,

> Post-Modernism would be a reaction to the scientific, rational, man-centred culture developed in Western Europe and America over the last several centuries. In certain respects, this position represents a logical extension of 20th-century modernism, pushing it to the point where it calls into question the very assumptions on which it initially rested.[81]

The first of such modernist assumptions to be challenged in the museum was the belief that a single, authoritative narrative could adequately represent the past, as to quote Lampugnani, '...for many post-modernists the very notion of a linear, cause-and-effect history is suspect.'[82] Indeed, from Gidden's perspective,

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[81] Ibid., p. 268.
[82] Ibid., p. 269.

The condition of post-modernity is distinguished by an evaporating of the "grand narrative" - the overarching "story line" by means of which we are placed in history as beings having a definite past and a predictable future. The post-modern outlook sees a plurality of heterogeneous claims to knowledge, in which science does not have a privileged place.[83]

Critically, this new plural perspective was to challenge the hegemony of each country's dominant ethnie, which throughout the era of Modernity had remained unassailable. As Cliff Whiting, Te Papa kaihautu,[84] explains in the case of New Zealand, 'the pakeha culture has always seen itself as universal, the answer to everything. But Maori – and other ethnicities – have a different way in which we want to make things happen.'[85] Fascinatingly in this context, the case-study museums have debunked this modernist notion of the dominant or 'universal' national identity and embraced the diverse 'stories' or identities of postmodernism to varying degrees.

The approach to identity displayed at the MOS has strayed least from the traditional modernist course. This can be stated because throughout the displays, and even to a large extent in the twentieth century gallery, a rich but ultimately *homogenous* Scottish national identity is presented. Most telling of this is the fact that a distinct display located on Level 5, 'Scotland and the World', is devoted to the migration of Scots overseas in the eighteenth and nineteenth centuries, and includes 'the world map which introduces this theme [and] traces Scottish placenames all over the world, and suggests just how much of a mark Scots have made'.[86] In contrast, there is no similar exhibit charting the influx of people of other identities into Scotland, which although a much smaller phenomenon, is still a constituent in the identity of modern Scotland. Within the broader historical and political context however, this 'universal' approach to identity may be easy to explain. As seen previously, the incongruity of its position as a stateless nation has largely confined Scotland to the cultural and political periphery, and therefore the opportunity presented by the Museum project to promote a unified and coherent national identity, in opposition to that of England, was seized. As Madan Sarup explains:

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[83] GIDDENS, 'The Consequences of Modernity', p.2.
[84] This title, which simply means 'leader', was devised for Cliff Whiting when he became joint Chief Executive Officer of Te Papa with Cheryll Southeran, and in traditional Maori terms is the name given to the steersman of the waka.
[85] FRENCH, Anne, in "The Designing of Te Papa", *Architecture New Zealand*, Special Issue 1998, p. 72.
[86] CALDER, Jenni. 'Museum of Scotland', (Edinburgh: NMS Publishing Limited, 1998), p. 61.

Any minority group, when faced with hostile acts, does several things. One of the first reactions is that it draws in on itself, it tightens its cultural bonds to present a united front against its oppressor. The group gains strength by emphasising its collective identity. This inevitably means a conscious explicit decision on the part of some not to integrate with 'the dominant group' but to validate their own culture (their religion, language, values, ways of life).[87]

In consequence of this ongoing quest for full national autonomy, Scottish culture and identity are inevitably contained within the 'univalent' framework of Modernity, and the MOS promotes this single, ascendant depiction of identity within its exhibits.

It is unsurprising in light of Canada's diverse cultural make-up, to find that the CMC offers a very different depiction of national identity to that provided at the MOS. The three mainstream identities, those of native, French, and English Canadians, are represented in the Grand Hall and the History Hall, and although largely autonomous, some attempt has been made to interweave these narratives. Most importantly however, the Museum's curators have looked beyond these respectively indigenous and 'dominant' ethnies, and presented the arrival and subsequent experiences of other peripheral ethnic groups in Canada. As Macdonald and Alsford relate, 'although designated the History Hall, it does not restrict itself to the story of French and English settlement but also illustrates the relationship between the European newcomers and the established natives as well as the role of other immigrant groups in the development of the country.'[88] Indeed, it was recognised that 'immigration from non-Western countries can be expected to become an increasingly important component of population growth, with the resulting need to integrate foreign values and traditions into the national self-understanding.'[89]

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[87] SARUP, Madan. 'Identity, Culture and the Postmodern World', (Edinburgh: Edinburgh University Press Ltd., 1996), p. 3.
[88] MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 72.
[89] Ibid., p. 59.
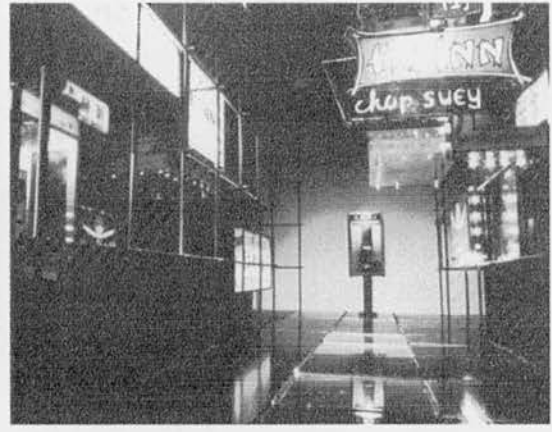
Fig. 59. Festivals such as the one shown here are held at the CMC to highlight the many performance traditions that are part of Canadian culture.
Fig. 60. An exhibition of Chinese-Canadian culture in the History Hall.

In this respect the displays at the CMC can be classified as postmodern, as they attempt to portray the 'plurality of heterogeneous' Canadian identities, rather than the modernist, imperial 'grand narrative'.[90] The Museum's Director, George Macdonald, waxes lyrical on this theme:

> At the very heart of CMC's ambition is to be a crossroads of cultures, in a much wider sense than just a cultural marketplace. As a *national* museum, CMC belongs to, and serves, all Canadians and represents Canadian heritage and identity to both Canadians and non-Canadians. It has no valid choice other than to be concerned with all regions, cultures and eras in Canadian history. The multicultural nature of Canadian society seems to be the best theme for use in organizing and making sense of CMC's resources and products.[91]

However, notwithstanding this plural, postmodern approach to its exhibition design, the CMC's representation of cultural identities remains firmly grounded in the ethos of Modernity in several ways. Firstly, the construction and promotion of a single, all-encompassing national identity is still, despite the multicultural ambition of the displays, a key priority, as implied by Macdonald and Alsford:

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[90] This approach consciously rejects the notion of the 'melting pot', which advocates assimilation of immigrant identities to the dominant core culture, and in this respect sets Canadian policy, [legislated in the Federal Multiculturalism Policy of 1972], apart from that of America:

> Unlike the United States' Smithsonian Institution, which tends to focus on the eastern seaboard, as the cradle of the nation, and the myth of the melting pot, CMC has necessarily taken a different position on ethnicity. Canada has never been a true melting-pot of culture. CMC celebrates the diverse ethnic origins of the Canadian people within the context of a national identity. [MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 4.]

[91] MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 59.

One way in which CMC makes itself meaningful is that, as a shrine containing the national treasures, it can be seen by Canadians as an appropriate pilgrimage destination where their experience of national culture/identity will help transform them into 'good citizens'. All Canadians should feel a certain obligation to visit their national capital, and to visit CMC as an integral part of that pilgrimage.[92]

Along with this desire to cultivate a single identifiable national identity, this quotation also reveals several other modernist agendas at work at the CMC. By using the devotional language of the 'pilgrimage', the authors are instilling the Museum's artefacts or 'treasures' with a secular sacredness characteristic of the modern rationale's objectivity.[93] In addition to this, the concept of 'transforming' its visitors into 'good citizens' is a classic example of the Foucaultian reading of the modern museum as an instrument of surveillance and social control.

Surprisingly, it can even be argued that the pluralist portrayal of Canada's ethnic minorities in the CMC remains within the modernist paradigm. As Steven Lavine writes in his introduction to a set of papers on 'Art Museums, National Identity, and the Status of Minority Cultures: The Case of Hispanic Art in the United States':

Ybarra-Frausto also challenges the notion of pluralism as a political and aesthetic strategy for incorporating "alternative representations…and antagonisms." Pluralism as an ideology makes a peripheral place for new possibilities without allowing them to challenge the central idioms of "Euro-centered art." Most often, this incorporation occurs under "categorizations of 'ethnic art' as primitivistic and folkloric" – that is, on much the same terms that African and Oceanic art have entered comprehensive art museums.[94]

Within these terms, the CMC can indeed be accused of allowing the culture of Canada's ethnic minorities into the Museum in only a superficial or peripheral way, leaving white, European culture to determine the very structures of the Museum, as at no point has this traditional model of European-style exhibition space been challenged. This general observation by Lavine and Ybarra-Frausto then appears to

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[92] Ibid.

[93] The authors of this book, George Macdonald and Stephen Alsford, are the Museum's Director and chief researcher respectively.

[94] LAVINE, Steven D., 'Art Museums, National Identity, and the Status of Minority Cultures: The Case of Hispanic Art in the United States', in KARP, Ivan, and LAVINE, Steven D., (Eds.), 'Exhibiting Cultures. The Poetics and Politics of Museum Display', (Washington & London: Smithsonian Institution Press, 1991), p. 83.

be further borne out at the CMC, as the non-European art and material culture collections, as well as being housed in traditional European-style galleries, are indeed separately displayed under just such 'ethnic', 'primitivistic',[95] and 'folkloric' categorisations as described:

> Ethnic groups are presented in the History Hall in relationship to the major issues that are important to them as Canadians. But they are also peoples with roots that go back into other continents. The Arts and Traditions Hall on the main level gives the opportunity to treat *ethnic* cultures, and *folk* or *popular* culture generally, more broadly than in the History Hall. [My italics]

Indeed such labelling of the Museum's indigenous art spaces appears to be habitual, with the Native Art Gallery, which presents artefacts from the collections of the Canadian Centre for Folk Culture Studies, being augmented by two sub-halls: the '*Folk* Arts Hall'; and the 'Cultural Traditions Hall'.
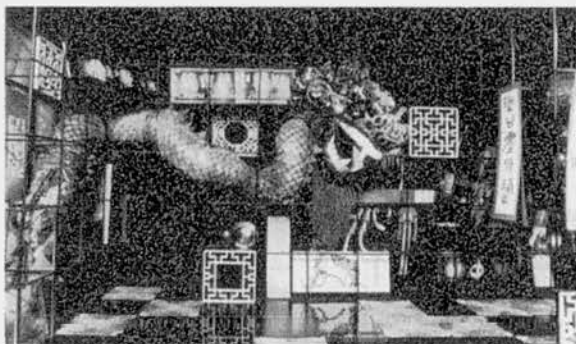
Fig. 61. An 'ethnic' exhibition in the Arts and Traditions Hall.
Fig. 62. The first exhibition in the Cultural Traditions Hall, which focused on the Chinese-Canadian community.

Therefore, although the CMC includes subject matter from a wide range of Canadian ethnicities, its methodological foundation in white European cultures of display prevents it from being a truly postmodern and plural museum.

In considering the final museum, Te Papa, in relation to postmodern pluralism as opposed to a modernist 'grand narrative' of identity, the ideas of Ybarra-Frausto once again become salient. As Lavine writes, 'when Ybarra-Frausto objects to pluralism as an adequate basis for inclusion, he implies that this liberal, ameliorative agenda is not enough, that a more fundamental challenge to the canon, to the principles of a core historical heritage, is required.'[96] As seen, this radical approach was lacking in the

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[95] These terms are euphemised in the following quotation to 'traditional' or 'popular'.

[96] LAVINE, in 'Exhibiting Cultures. The Poetics and Politics of Museum Display', p. 86.

CMC, but just such a fundamental challenge to the pakeha canon can be discerned at all levels of Te Papa's structure.

At Te Papa, biculturalism, or the place between the two worlds of pakeha and Maori culture, is apparent even at the smallest scale of the Museum: the individual exhibit. Throughout New Zealand's 'colonial' history, Maori *taonga*, or treasures, have consistently been appropriated without consent by pakeha collectors and museum curators. However, throughout the 1980s and 1990s this practice was radically amended, with the Te Papa Development Board instead engaging in consultation with *iwi* in order to acquire such taonga.[97] The resultant shared concept of *mana taonga* has meant that iwi who have taonga in the museum have a right to be consulted in the way those taonga are handled, used, exhibited, and interpreted, and this joint or bicultural policy has had a significant effect on the way the Museum's Mana Whenua exhibition was developed, and more generally on the acceptance of the Museum by the Maori community.
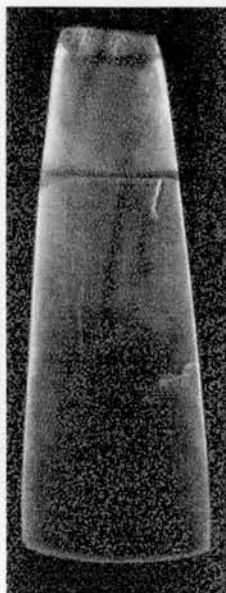
Fig. 63. This *toki* or greenstone adze is a precious Maori taonga, which is displayed with cultural sensitivity in Te Papa's 'Mana Whenua' exhibition.
Fig. 64. The 'Mana Whenua' exhibition at Te Papa.

The most visible and potent sign of Te Papa's commitment to a bicultural identity is its marae, Rongomaraeroa, which occupies the harbour-side space of Level Four.

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[97] Iwi are Maori tribal leaders.

Fig. 65. The internal Marae, Rongomaraeroa, at Te Papa.

Based on the traditional and sacred Maori tribal meeting house, this marae is unique, both in its contemporary design and decoration, which are based on traditionally used forms and materials,[98] and in its embrace of a shared Whakapapa, or genealogy, of all the peoples of New Zealand. This symbolic openness is continued outside on the Museum's Level Four promontory, where the wahoroa, or gateway, celebrates the arrival of all those who have come to New Zealand, including in addition to the expected representation of Kupe,[99] European explorers such as Tasman and Cook.

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[98] For example, the patterned carpet on the floor outside the marae is based on tāniko, or traditional weaving patterns. The design refers to Papatūānuku, the Earth Mother. Similarly, the stained glass artwork is a contemporary depiction of Ranginui and Papatūānuku.

[99] Kupe was an early Maori discoverer of Aotea-roa.
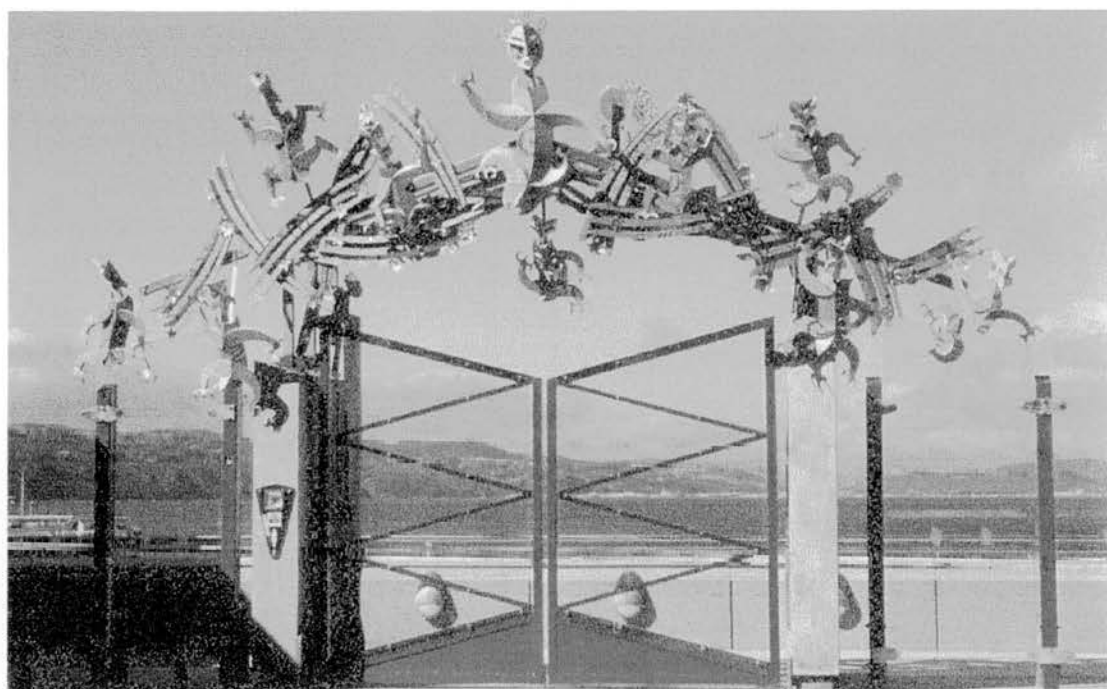
Fig. 66. The Maori waharoa, or gateway, at Te Papa.

This marae is a deeply significant cultural gesture, which as Cliff Whiting explains, is all the more significant and lasting for being integrally located at the heart of the building:

> Here you get a marae structure that's built into the building. It's not added to, it's not put on top of, it's built into the architecture of the place. And of course, it's going to be very difficult to change it, especially now that it's there in people's minds. I've always said that this goes a long way towards the recognition of the bicultural approach in the building.[100]

This organic inclusion of the marae is only a part of the overall architectural gesture of biculturalism attempted by JASMAX, however. As we saw in Chapters Two and Three, *Tangata Whenua*, or the Maori wing of the building, is located in accordance with Maori philosophy, looking out to the openness of Lambton Harbour and the distant Tararuas, with mountain enclosure behind. In addition, its 'gallery' spaces are consciously asymmetrical and free-flowing, in order to distance them from the constraints of the pakeha European heritage. In contrast, *Tangata Tiriti* forms a continuation of the Enlightenment grid structure of Wellington's urban fabric,[101] with its galleries therefore firmly adhering to the European canon of Modernity. Most

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[100] FRENCH, in "The Designing of Te Papa", *Architecture New Zealand*, special issue, 1998, p. 69.
[101] Tangata Tiriti is the exhibition relating to New Zealand's non-Maori, or pakeha inhabitants.

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significantly, the interface between these two wings used to house the Treaty exhibition, is a triangular space, which honestly addresses the inherent and at times contentious push and pull between the two cultures. To quote French:

> It's a kind of architectural pun … it's based on the words "to cleave", which means both to separate and to bring together. The area which the treaty exhibition inhabits in the building is a liminal space between two worlds, a zone that Cliff Whiting knows, as someone who has spent his whole life there.[102]
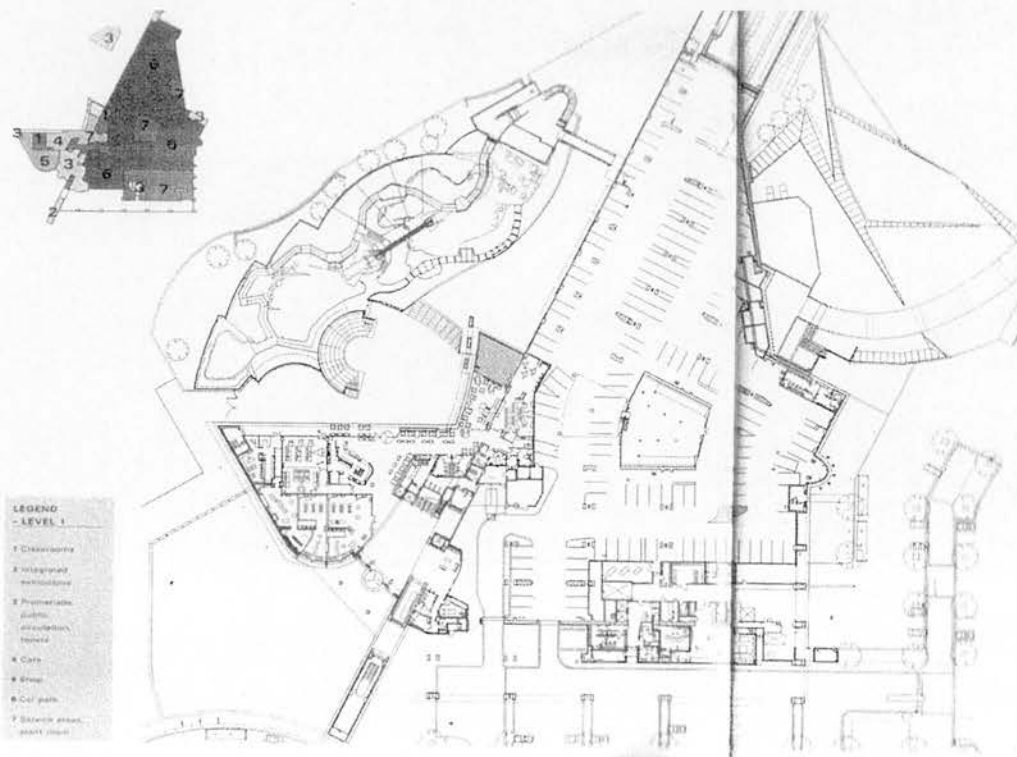
Fig. 67. Plan of Te Papa showing the Maori and pakeha wings, as well as the conjoining triangular space.

Finally, on an even larger scale than its architecture, a commitment to biculturalism is also apparent in the Museum's organisational operations, and this negotiated compromise is explained by Elaine Heumann Gurian:

> [Biculturalism is] difficult because integration is not only about content but also about world-view, about values, about issues of time, of collaboration, disputational style, and the issues of supervision. In short, real biculturalism demands an understanding and acceptance by leadership of entirely different

[102] FRENCH, in "The Designing of Te Papa", *Architecture New Zealand*, special issue, 1998, p. 70.

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work and thinking patterns, and creating pathways, for it to work effectively in running an organisation.[103]

Although obviously challenging, a real effort has been made to achieve this integrated approach, and this commitment is well demonstrated by the appointment of Cliff Whiting to the post of joint CEO, or 'kaihautu', alongside Cheryll Sotheran. Unlike at the CMC, Te Papa's much vaunted attempt to achieve biculturalism has gone beyond the Museum's material contents to reassess the very ordering and guiding principles present at every level and in every activity of the institution. However, beyond these two main identities of Maori and pakeha, none of New Zealand's other minority ethnic groups have received more than superficial representation within the Museum's exhibitions.

Returning to postmodernism in general, it becomes clear that it was not only the 'grand narrative' or overarching 'story line' of the modernist paradigm, and specifically the modern museum, which postmodernism threw into doubt, but also the museological methods employed to achieve this. The rationale of Modernity, as has been seen, had objectivity as its founding principle, and in the museum this inevitably resulted in the authentic, historical artefact being privileged and endowed with great significance. However as Umberto Eco observed, with the coming of postmodernism, 'absolute unreality [was] offered as a real presence',[104] and in the field of museum display this took the form of heritage. Extrapolating from Eco's assertion, MacCannell termed heritage, 'staged authenticity', and Rojek concurred that, 'spectacle has replaced meaning and value is dominated by sensation. In this context, heritage is a matter of signs; authenticity and originality are matters of technique, not 'reality".[105] It appears therefore, that whilst history can be seen as modernist, with 'God in the details',[106] the symbolism or 'staged authenticity' of heritage is located within postmodernism. Within such postmodern heritage, traditional modernist boundaries between the real and the imaginary world are dissolved, as are the distinctions between past, present, and future. Another barrier which is lowered is

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[103] HEUMANN GURIAN, Elaine, in "The Designing of Te Papa", *Architecture New Zealand*, special issue, 1998, p. 78.
[104] ECO, Umberto. 'Travels in Hyper-Reality: Essays', (London: Pan, 1987), p. 10.
[105] ROJEK, C., 'Ways of Escape', (London: Macmillan, 1993), in McCRONE, David. 'Scotland the Brand: The Making of Scottish Heritage', (Edinburgh: Edinburgh University Press, 1995), p. 25.
[106] This now famous adage was first used by Mies van der Rōhe to describe the precise architectural detailing of his buildings.

that between 'high' and 'low' culture, and the breakdown of this hierarchy has allowed a new-found link between commerce and culture to flourish.

Of the three case-study museums, again it is the MOS which appears to have strayed least from the modernist position, and this is no doubt due to the strong 'elitist critique' of heritage present in contemporary Britain. As seen in Chapter Two, although a certain degree of contextualisation within the exhibitions was deemed advantageous by the curators, this did not cross the line from history to heritage to become inauthentic reconstruction or simulation. At the other end of this scale with respect to heritage, lies the CMC. There, an entirely reconstructed streetscape was created within the History Hall, which relegates the authentic object to a position of secondary importance, creating a narrative, and 'staging authenticity' through the use of interpretative simulacra.
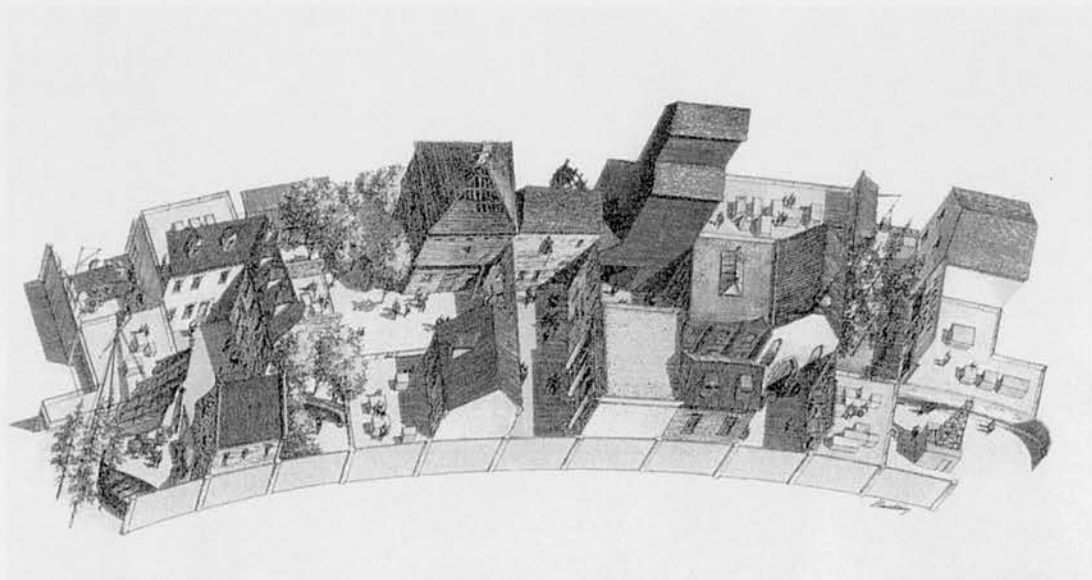
Fig. 68. Artist's impression of the reconstructed streetscape in the CMC's History Hall.

However, the Museum's Director was well aware of the many pitfalls of such reconstruction:

> Critics have also suggested - not always with justification - that streetscapes cater to nostalgia rather than to the teaching of historical 'truths', that (like open air museums) they tend to romanticize the past by ignoring its unattractive aspects, that the complex make-up of environmental reconstructions distracts attention from the individual artifacts, and that their unchanging nature makes them boring to return visitors.[107]

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[107] MACDONALD and ALSFORD, 'A Museum for the Global Village', p. 95.

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Nonetheless, despite these often cited disadvantages, the powerful and vivid interactive experience provided by reconstruction proved too much of a lure for the curators at the CMC. Indeed, the voyeuristic power of this reconstituted scene in the History Hall is further enhanced by live performances, in which actors recreate the street life of a particular time and place. Macdonald and Alsford believe that at the CMC, such 'theatrical presentations are a powerful vehicle for conveying - and personalizing - ideas, feelings, and values that might otherwise elude a visitor exposed only to artifacts.'[108]

Fig. 69. A period performance taking place in the reconstructed setting of the CMC's History Hall.

This experience at the CMC varies from that offered by the MOS in several ways. Firstly, the amount of input required by the viewer is dramatically reduced. The visitor no longer has to project a meaning from a 'dumb' artefact, minimally labelled, but is presented with the complete picture, pre-formulated and easily digestible. In an age of constant, instantly accessible media stimulation, such a change may be viewed as an inevitability. Some critics, such as Robert Hewison and David McCrone, believe that this finalised and neatly compartmentalised view of history provided by postmodern heritage has created a rift between past and present in the public

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[108] Ibid., p. 144.

consciousness: 'the open story of history has become the closed book of heritage';[109] or as it has been interpreted by McCrone, 'one of the most important effects of heritage has been its intensification of the modern emphasis on promoting the past as that which is entirely complete and removed from the present. This has served to neuter the past and permit its manipulation and trivialization in the present.'[110] Sorenson, however, believes that touristic heritage provides an overall view of some past, but one which is clearly structured from the viewpoint of the present: 'In these changing and disturbing times, historic theme parks and heritage centres probably tell us as much about ourselves as the past - indeed probably more.'[111]

Secondly, it is abundantly clear that such story-telling allows even greater scope for the manipulation of history by the exhibitors. As already discussed, the traditional museum has always been a forum for the assertion of one set of principles or values over others, but many critics argue that as long as the original, authentic article has remained at its core, some sort of legitimacy has been present. The advent of largely 'collection-less' museums has undoubtedly allowed a previously unknown level of subjectivity, and significantly, this characteristic feature of heritage has allowed it to be used as a tool for politics in general, as well as political nationalism.[112] As McCrone writes in his book, 'Scotland the Brand', 'in the quest for national (as opposed to state) identity, heritage is a vital source of legitimacy. The iconography of nationalism is replete with sacred objects such as flags, emblems and sites which are often contested and fought over.'[113] And he continues this argument later on in the same text:

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[109] CORNER, J., and HARVEY, S., (Eds.). 'Enterprise and Heritage', (London: Routledge, 1991), p.175.
[110] McCRONE, David. 'Understanding Scotland. The Sociology of a Stateless Nation', (London & New York: Routledge, 1992), p. 4.
[111] SORENSON, C., 'Theme Parks and Time Machines', in VERGO, P., (Ed.). 'The New Museology', (Reaktion: London, 1988), p. 65.
[112] Margaret Thatcher provides a good example of a political leader who understood the power of heritage and sought to utilise it to political gain. The critic Patrick Wright argued that, 'heritage not only represented a cultural capital to be exploited for commercial gain, but was used by the regime to paper over some fundamental ideological and political cracks in the fabric of the state.' [WRIGHT, Patrick, quoted in McCRONE, 'Scotland the Brand', p. 21]. Echoing this view, Hewison also stressed how Mrs. Thatcher manipulated heritage to her cause: 'Nostalgia is profoundly conservative. Its emphasis on order and tradition relies heavily on appeals to the authority of the past.' [HEWISON, Robert. 'The Heritage Industry: Britain in a Climate of Decline', (London: Methuen, 1987), p. 47] This tactic was blatantly obvious in Mrs. Thatcher's appeal for a return to 'Victorian values', and this policy was continued by John Major in his 'Back to Basics' campaign.
[113] McCRONE, 'Scotland the Brand: The Making of Scottish Heritage', p. 7.

In the context of this broad debate, we can place the revival of regionalism and nationalism. The latter, and even the former have a capacity to mobilise aspects of heritage for political purposes, and it is this process perhaps more than any other which has helped to bring heritage to prominence. In the late twentieth century when issues of identity become especially problematic, there is a search for roots, for discovering where we have come from. The focus on heritage is bound to be one expression of this search.[114]

In this context, it is noteworthy that the curators of the Museum of Scotland, a country with probably the richest iconography in the world, have avoided the heritage approach completely,[115] and significantly there are no traces of manipulation to serve political ends in the CMC's heritage reconstructions either.

The heritage techniques discussed are somewhat reminiscent of the at times grotesque tableaux constructed in pre-modern museums,[116] and interestingly, postmodernism as a whole can be seen as a return to the vaules of the pre-modern age: 'The second alternative, Post-Modernism as an opposition to 'Modern Movement' or 'Modernity', implies a more or less decisive break with the major goals of the 20th-century avant garde, and a re-integration with the ideals of the pre-modernist era.'[117] The clearest example of this return to a pre-modern structure within the museum is definitely the introduction of the 'fairground ride'.

As explained in the thesis Introduction, the new modern museums established in the late eighteenth, and nineteenth centuries, sought desperately to control and 'civilise' their new audience. The authorities struggled to quell riotous behaviour associated with the fairground culture of the time, and this concern for order and education over entertainment was to continue well into the twentieth century. In a contemporary reversal of this modernist regulation and didacticism however, two of the three investigated museums have attempted to introduce rides more usually associated with the fairground, thus once more narrowing the gap between the museum and the theme or amusement park. At the CMC, plans were made to utilise automated vehicles known as 'peoplemovers', to enable visitors to make exploratory forays behind-the-

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[114]Ibid., p. 25.

[115] This is possibly due to the self-consciousness and relative sophistication of the museum profession in Britain.

[116] See the thesis Introduction.

[117] LAMPUGNANI, (Ed.), 'Dictionary of 20th-Century Architecture', p. 269.

scenes into the reserve collections areas. This never materialised however, owing to the Museum project as a whole running severely over budget.
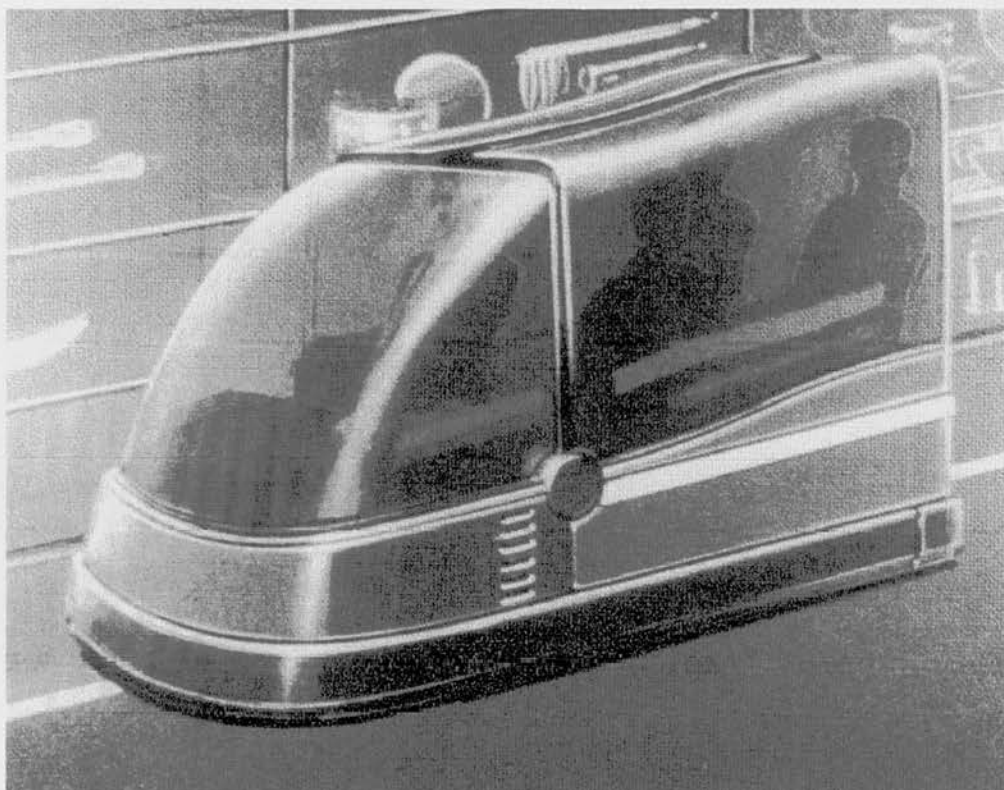
Fig. 70. An artist's impression of the 'peoplemover', which never got beyond the drawing board stage.

More ambitious and ultimately successful, was the 'Time Warp' scheme at Te Papa, which contains two major rides; 'Blastback' and 'Future Rush'.
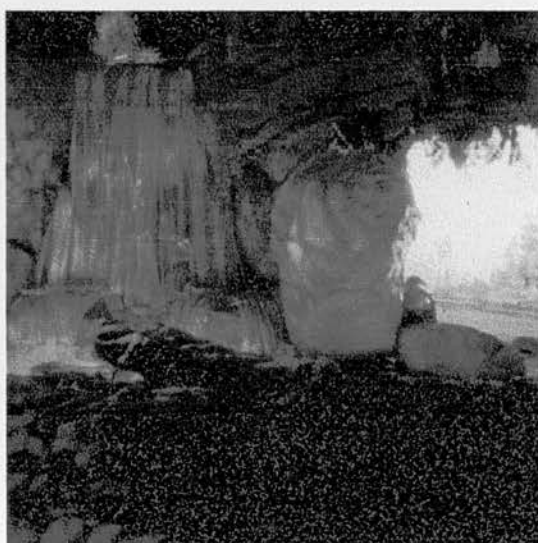
Fig. 71. The 'Time Warp' section located on Te Papa's Level 2.
Fig. 72. A simulation of 'New Zealand' over 200 million years ago, inside the 'Blastback' ride.

As their names imply, they present an imaginary look at New Zealand in the past, over 200 million years ago, and in the future, the year 2055. Both utilise video graphics in conjunction with jolting and shaking 'cars', in order to simulate experience, and in the case of 'Blastback', this consists of flying over the continental plate of Gondwanaland and the rapidly changing terrain of New Zealand.

Fig. 73. The simulated rides at Te Papa.

'Future Rush', in comparison, is a ride around future Wellington in which, 'you whiz between high-rise buildings with holographically altered exteriors, zoom beneath the harbour to check out underwater living, and take a breathtaking ride through a windfarm'.[118] Also located within the 'Timewarp' section of the Museum, is a virtual bungy jump ride, which allows Museum visitors to, 'experience the thrill without actually falling. Strap on the safety harness and anti-gravity boots, don the head-mounted display in the revolving bungy capsule and suddenly, with live action video,

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[118] 'Te Papa Our Place. A Souvenir', (Wellington: Te Papa Press, 1999), p. 14. The resultant sensation of both rides, although virtual rather than actual, is akin to that of a conventional rollercoaster, therefore evoking the mechanised pleasure parks of the modern era which developed from the fairgrounds of pre-Modernity.

you're diving into Skipper's Canyon - the largest bungy drop in New Zealand'.[119] A clearer example of the postmodern characteristic of offering 'absolute unreality' as 'a real presence', is surely hard to find. In conclusion, cultural production in the period from 1914 to the present day has clearly been guided by at least three parallel and overlapping movements or 'epistemes', which have all impacted on the casestudy museums to different extents. With that in mind, it is now time to draw wider conclusions from this thesis as a whole.

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[119] Ibid., p. 12.

CONCLUSION

This thesis has taken the form of a discursive exploration into the architectural and exhibition design of three contemporary national museums, and before proceeding to draw specific as well as more wide-reaching conclusions, it is worthwhile recapitulating the boundaries and ambitions of the inquiry as a whole. It has been proposed that knowledge and understanding, rather than being immutable 'truths', have an historical or temporal specificity that determines their very nature, and from this basis the shift to the rational and objective era of Modernity from the episteme of pre-Modernity was charted. In the words of Habermas:

> The project of modernity formulated in the eighteenth century by the philosophers of the Enlightenment consisted in their efforts to develop objective science, universal morality and law, and autonomous art according to their inner logic. At the same time, this project intended to release the objective potentials of each of these domains from their esoteric forms. The Enlightenment philosophers wanted to utilise this accumulation of specialized culture for the enrichment of everyday life - that is to say, for the rational organization of everyday social life.[1]

The most definitive outcome of this new 'rational organization of everyday social life', was the development of the nation-state as a construct of political and societal ordering, and this paradigm is still dominant today. Equally, the modern museum was reliant for its formation on the new 'enlightened' conditions, and so both the nation-state and the modern museum can be regarded as sub-sets of the modernist paradigm. Within this conceptual 'Venn diagram',[2] it was the brief of this thesis to investigate the 'overlap', or the relationship between the modern museum and the nation-state, and it is from this confluence that the 'competing narratives of identity' derived from Romantic Nationalism and Modernity reveal themselves.

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[1] HABERMAS, Jürgen, "Modernity - an Incomplete Project", in FOSTER, Hal, (Ed.), 'The Anti-Aesthetic: Essays on Postmodern Culture', (Seattle: Bay Press, 1983, 1991), p. 9, translated from "Die Moderne-ein unvollendetes Projekt" (1980), in HABERMAS, 'Kleine Politische Schriften I-IV' (Frankfurt: Suhrkamp, 1981), p. 453. My source is HEYEN, Hilde. 'Architecture and Modernity', (Cambridge, Massachusetts & London, England: MIT Press, 1999), p. 11.

[2] This is a diagram, like figure 1, conceived by the mathematician John Venn (1834-1923), in which sets and their relationships are represented by overlapping circles or other figures.

Competing narratives
of identity

the modern
museum

the nation-
state

Modernity
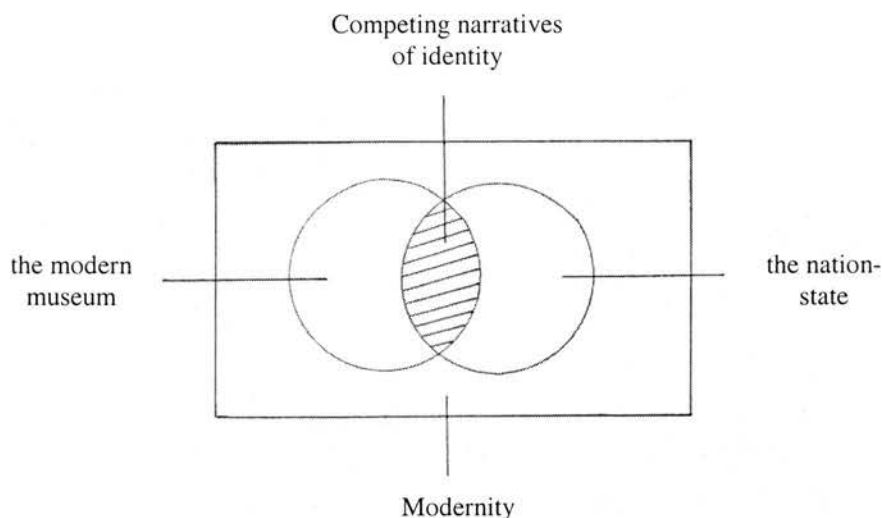
It was proposed in the Introduction to this thesis that the museum would make a
pertinent and telling research vehicle, and this has indeed been the case, with all
three of the investigated museums, '... challeng[ing] accepted theoretical wisdoms,
forcing us to rethink assumptions about, say modernity, nationhood, social memory,
consumption, structure and agency, and the nature of material forms...' [3] The
representation of identity in terms of Romantic Nationalism and Modernity has been
approached quite differently in each case however, and this Conclusion will begin by
investigating this relationship at the MOS, before contrasting this with the situations
at the CMC and then Te Papa. Subsequently, with their differences having been
sketched, the fundamental contention of this thesis that the same dialectic is shared
by all three museums will be explained.

The representation of national identity at the MOS is inherently dualistic and
unresolved, and in order to illustrate this it is necessary to consider the Museum's
exhibits and architecture separately. Beginning at the heart of the Museum in its
exhibitions, the overarching influence of the paradigm of Modernity is
incontrovertibly present in both the selected material culture itself and the methods
of its display. Regarding the contents first, a considerable bias towards the depiction
of Scotland's industrial heritage, at the expense of its folk history and culture, has
been found, and this disparity can be traced back to the decision not to create a
separate Museum of Industry: 'Since the story of Scotland's industrial history has
been inextricably bound up with other aspects of Scottish culture and life over the
past two centuries and more, the Museum of Industry should be developed as an

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[3] MACDONALD, Sharon, and FYFE, Gordon, (Eds.). 'Theorizing Museums. Representing Identity
and Diversity in a Changing World', (Oxford & Cambridge: Blackwell Publishers, 1996), p. 3.

integral part of the development of the Museum of Scotland.'[4] Indeed, the board decided that it would, 'make no sense to divorce industry in its widest sense from the other themes that will have to be brought out in the displays which will be developed in Scottish history and culture.'[5] The resultant imbalance is easily substantiated by a consideration of floor areas given over to each theme, with the 'Scotland Transformed' and 'Industry and Empire' displays that predominantly focus on manufacturing history, occupying the vast majority of levels 3, 4, and 5. A disproportionate area of the Museum's display space, therefore, is devoted to the representation of Scotland as a modern, industrial power at the forefront of global development, and this perspective is of course firmly located within the improving paradigm of Modernity. Crucially, such an historical perspective counteracts and subdues the pervasive Romantic conception of the Scottish nation, which as has been seen, was crystallised by the creative energy of Walter Scott. Indeed, the 'tartan-clad' myths surrounding Bonnie Prince Charlie and his brave Jacobite warriors, and the ancient bard Ossian, are tamed by the contradictory, yet still propagandist image of Scotland as 'the Workshop of the World'. This marginalisation is clear, as although 'The Jacobite Challenge', 'Living on the Land', and 'Daith Comes In', do address Jacobite and folk or social history more widely in this period from 1707, the coverage is very limited in comparison to that of industrial history, and most significantly, is introspective, highlighting the distortions and exaggerations of the Romantic tradition. No similar regulation is present in the Museum's depiction of Scotland's industrial past however, with the result that a somewhat idealised vision of the country's involvement in the international Industrial Revolution of the eighteenth and nineteenth centuries is presented.

Beyond the actual material culture selected, the methods of its display employed by the curators at the MOS are also largely confined to the modern agenda. The clearest example of this is the primacy of the artefact within the Museum, which has been demonstrated at various points in this thesis, and was exposed in the Architectural Competition Brief: 'The main purpose of displays in the new building will be the presentation of material from NMS's collections; audio/visual and other aids (where they are included) will always be subservient to displays concentrating on museum objects'.[6] Such objectivity was a crucial component of Enlightenment thought, and

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[4] McKEAN, 'The Making of the Museum of Scotland. Draft Text', p. 2.3.
[5] Ibid.
[6] 'Architectural Competition Brief', p. 3.

can be traced to the MOS through the history of its parent institution. Despite being contested by an imposed curatorial narrative most markedly apparent in 'object-weak' sections, such as the 'Spirit of the Age' and 'The Union', objectivity is undeniably dominant throughout. This privileging of object over narrative is perhaps most startling in the Museum's Level 6 Twentieth Century gallery, in which individuals have been requested to select items which in their opinion have significantly affected everyday life over the last one hundred years. Paradoxically however, the resultant eclecticism and lack of an ordering system link the exhibition to the chaotic collections of pre-Modernity before the introduction of classification and specialisation, whilst the plurality of views represented acknowledges the fragmented and negotiated approach of postmodernism.

The method of display adopted at the MOS also falls within the modernist paradigm in several other ways. Firstly, and integrally connected to the primacy of the Museum's material objects, is the notion of authenticity. By valuing the genuine historical artefact over simulations or reconstructions, the concept of objective truth, which lies at the root of the modern rationale, is upheld. Indeed, within post-Enlightenment theory, understanding is perceived to be accessible via the genuine historical artefact, rendering the search for and acquisition of such authentic items the central task of the museum. Secondly, it has been shown that at many points throughout the exhibitions, the modernist belief in 'progress' is apparent. Again this approach is particularly obvious in the displays relating to the industrialisation of the nation, which practically ignore the cataclysmic social side effects which accompanied this revolution. Another structure or characteristic of Modernity within which the MOS's exhibitions are contained, is that of didacticism. A desire to instruct is an integral ambition of the collection's curators, and referring to the following table compiled by Hooper-Greenhill, which appeared in the publication 'Newslink',[7] this educating voice at the MOS, in contrast to those at the CMC and Te Papa, more usually assumes the Museum's visitors or 'learners' to be 'passive absorbers of information', rather than 'active learners'. This is largely because of the relative lack of 'hands-on', interactive displays, and places this aspect of the exhibition design within the modern, rather than pre- or post-modern schema. In a related point, such a lack of public interaction or collaboration was also apparent at

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[7] HOOPER-GREENHILL, Eilean, "Communication in Museums - Two Approaches", *Newslink*, Issue 16, June 1999, p. 3. This article was adapted from a presentation given by Hooper-Greenhill, Director of the Department of Museum Studies, University of Leicester, at Te Papa, to more than 80 colleagues from the lower North Island.

the production stage of the displays, with the authoritative experts of the modern age, the curators, maintaining an academic and historicist perspective, and therefore maintaining their hegemony.

Perception	Modernist museum	Post-modernist museum
Communication	Information flows one way	Information is negotiated
Visitors	General public	Different communities within the population
Learners	Passive absorbers of information	Active learners
Knowledge	External, objective body of facts	Internal, subjective negotiated interpretation
Exhibition production	Internal process, curatorial authority	Collaboration with audiences, tested through evaluation
Museums	Spaces of authority	Spaces of mutuality

[8]

The final way in which the displays at the MOS adhere to the intellectual framework that arose out of the Enlightenment, is in their portrayal or promotion of a single, homogenous Scottish identity. With the possible exception of the Twentieth Century gallery, little attempt has been made to fragment or differentiate the nation's identity into its constituent layers and groupings, and this overarching approach or meta-narrative becomes obvious in relation to the more complex and 'democratic' depictions of identity at the CMC, but more particularly Te Papa. A probable reason for this approach lies in Scotland's status with relation to the nation-state and England.

From the time of the Union of the Scottish and English Parliaments in 1707 to the present day, despite the inauguration of a newly devolved Scottish Parliament in the spring of 1999,[9] Scotland has not been an autonomous nation-state, and moreover has been regarded as having peripheral status, with critics consistently placing England at the political and cultural core of Britain. This situation has been

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[8] Ibid.

[9] Devolution was proposed by the Labour Party in their 1997 general election manifesto and was confirmed by a resounding Labour victory in that election, followed by a 74.3% Scottish referendum 'yes' vote in September of the same year. Regaining control over many domestic issues, along with wider taxation powers, the Parliament after a nearly three hundred year impasse has reclaimed partial Scottish autonomy, and in so doing has also explicitly accepted a continuance of British state authority in a range of other, mainly wider economic and defence policy areas. This parliament therefore, now alters Scotland's status to that of a 'semi-stateless', or conversely, 'semi-state' nation; a political and constitutional status unique to Scotland.

accentuated and perpetuated by cultural plundering and inferiorisation, with, to quote Craig, 'core cultures operat[ing] by taking to themselves all significant achievements in the periphery that can be accommodated without too great a stress.[10] The judgement that the periphery represents an impoverished tradition is therefore made inevitable'.[11] As a result of this, Craig proposes that, 'to talk about culture, society, history and literature, you have to talk about an English tradition whose wholeness makes it incorporative of everything else',[12] starkly contrasting this with Scotland's position within this hierarchy of nations:

> At no time in its history could Scotland have been described as an 'organic' or a 'unified' culture: it could never have been envisaged as one 'comprehensive' mind transcending the 'prejudices of politics and fashions of taste' of particular periods; therefore it could not qualify as a tradition or as a literature.[13]

Of course, the Canadian and New Zealand nations share with Scotland this background of political and cultural disenfranchisement, having also been subsumed by the British Imperialist project. All three nations exhibit a short and chequered history of independence, as well as contested national identity born out of the conflict between the native and imposed 'English' cultures. Indeed, the indigenous traditions in all three cases have been systematically devalued by the dominant imported culture, but as will be seen subsequently, the contemporary reaction to this within the two 'colonial' national museums is considerably different to that displayed at the MOS.

Although every nation is inevitably an amalgamation of different ethnicities, this is seen to be a cultural weakness only within peripheral societies, with core cultures having been able to smooth over their intrinsic heterogeneity: 'powerful cultures make themselves coherent and ensure their sense of their own superiority by insisting that coherence and continuity are the definitions of successful culture',[14] and a desire for such 'coherence and continuity' is at the heart of the MOS's depiction of Scottish

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[10] For example, 'The richness of the core cultures into which peripheral writers have attempted to integrate themselves in order to benefit from their accumulated wealth is a richness maintained precisely by dominant cultures' ability to insist that those from the periphery contribute their individual talents to the maintenance of its traditions'. [CRAIG, Cairns. 'Out of History: Narrative Paradigms in Scottish and English Culture', (Edinburgh: Polygon Press, 1996), p. 29].

[11] CRAIG, 'Out of History', p. 19.

[12] Ibid., p. 24.

[13] Ibid., p. 15.

[14] Ibid., pp. 19, 20.

national identity. With the Scottish nation having been deprived for centuries of the status of an inclusive and accomplished core culture, the exhibitions in the new national museum assert an homogenous image of nation, in an effort to gain the credibility of a core culture. Paradoxically however, as this promotion of a single grand-narrative is firmly entrenched within the Imperialist and hierarchical structures of the modern age, the depiction of Scottish identity within the Museum cannot escape the ghost of its historical subjugation. By embracing the paradigm of Modernity, the MOS's displays have not been exposed to the egalitarian multiplicity of postmodernism, which could have rendered Scotland's historical peripheralisation obsolete.

The exhibitions at the MOS fall within the framework of the modern schema, both in terms of their contents and the methods used to display those contents. By accentuating Scotland's industrial heritage, and keeping the authentic artefact as the ultimate focus, the curators have retained the objectivity of the modern era, which was rediscovered during the Enlightenment and which is once again under threat from the 'implosion' of postmodernism. Similarly, by subscribing to a progressive, didactic, and curatorially authoritative mode of exhibition, the displays have been contained within the modern episteme, and likewise, in the attempt to depict Scottish identity as a single entity, they have subscribed to the 'grand narrative' approach characteristic of Modernity.

Standing in bold and stark contrast to this curatorial objectivity however, is the Museum building itself, which although to some extent an acknowledgement of the modernist tradition, is predominantly an embodiment of Scotland's Romantic tradition. As was seen in Chapter Three, it was certainly an intention of the Museum's architects, Benson + Forsyth, to evoke the layout of Edinburgh's rational, orthogonally imposed New Town streetscape, and they attempted this symbolisation via the use of a regulatory, internal grid structure within the Museum's core gallery. Thus, the Museum's structural grid was presented as a reduced spatial continuation or reflection of the Enlightenment New Town, a development which itself can be seen as a physical embodiment of the Enlightenment ideas of rationalism, geometricality, progress, and the imposition of human will on the environment. In addition to this most prominent concession to the architecture of Modernity, the simple primary forms of which the Museum is composed were intended to signal a resonant connection with the rational, classical tradition of architecture, as opposed

to the individualistic and vernacular expressionism of the Romantic school, and the likeness of the Museum's cylindrical entrance tower to the nearby classically-inspired tomb of the seminal Enlightenment thinker, David Hume, signals this correlation.

However, such allusions to the period of Enlightenment and industrialisation in the eighteenth and nineteenth centuries, which was Scotland's intellectual and industrial heyday, are most definitely of secondary importance to the architects, who have chosen rather to favour a romanticised view of Scotland's medieval past in their design. Indeed, as was disclosed in Chapter Two, the principal axis and hence entire plan of the Museum is derived from just such a premodern source; the signing of the National Covenant in 1647. Practically, the apex of the Hawthornden Court was generated by the joining of the point at which the imaginary centre-line of the RMS's main hall meets the connecting eastern boundary wall of the MOS, with the point at the centre of the gateway into Greyfriars churchyard, and the majority of the building's other alignments and dimensions were directly affected by this decision. However, it is not the physical detail of this design strategy itself that is of interest, but rather the symbolism into which it taps. Simply, Benson and Forsyth have singled out an emotive and powerful event in premodern Scottish history as their primary design source, and as such are promoting a nationally Romantic narrative of identity. Instead of drawing distinction and acclaim from Scotland's intellectual and manufacturing achievements of the late eighteenth and nineteenth centuries, they are relying on an earlier, and more mysterious source of prestige: the National Covenant, which claimed a direct association between God and the people of Scotland. As such, the architects are drawing attention to Scotland's venerable past, as well as the inimitable independence of her people. However, although incredibly potent, this is not the most prominent example of a nationally Romantic narrative of identity forged by the architecture of the MOS, as it is a subtle allusion discernible mainly in the two-dimensional planning of the building rather than in its three-dimensional form. Much more conspicuous are the various built allusions to vernacular Scottish fortifications, which undoubtedly conjure up mythically glamorous images of medieval battles and sieges, and as such promote a Romantic image of the nation. The broch is the earliest of such structures to be suggested, and the round towers and towerhouses of the dark and medieval periods are also clearly evoked. However, it is doubtless the enceinte castle form of moat, curtain wall, courtyard, and keep, which is the clearest reference, and this aesthetic analogy is strengthened by the proximity

of the imposing and resonant mass of Edinburgh Castle overlooking the Museum from its position on the Old Town ridge. The image of Scotland presented by the architectural team, therefore, is not one of rationalism and advancement, but rather of national courage and pride in the face of bitter adversity, and this interpretation, relying as it does on a fanciful and sanitised view of the past, is rooted in the tradition of Romanticism. In their reinvention of such native built forms, Benson and Forsyth were, to quote Curtis on National Romanticism, endeavouring '...to sustain an ideal of indigenous authenticity rooted (supposedly) in local vernaculars or in pre-Renaissance examples, which were believed to have grown from the cultural subsoil'.[15] However, this interpretation of the national past was never supposed to be accurate, but was rather intended to be abstracted and assimilated, providing a contemporary translation of historic reality. In the words of Curtis:

> But while medieval and rural worlds were both idealized, it was never the intention to imitate the forms directly. Rather, native sources were to be transformed to respond to a new atmosphere in which urbanized societies look back at national history and the rural base through a haze of politicised romanticism.[16]

To conclude this summation of the competing narratives of identity present within the MOS, it is abundantly clear that a locally-inspired National Romantic interpretation of Scottish identity exists alongside one firmly grounded in the universalism of the modern age, and therefore the Museum institution as a whole presents a dualistic and ambiguous message. Although an over-simplification of a complex and overlapping situation, this division broadly occurs between the Museum's exhibitions and its architecture, with the former projecting an image of nation consistent with the schema of Modernity, and the latter promoting 'Scottishness' in its Romantic and idealised form, drawing from pre-, and as will be seen, post-Modernity, rather than Modernity itself. Vitally in terms of this thesis however, it can be concluded that these two approaches or traditions, although superficially antipodal or contradictory, are in fact mutually dependent, exhibiting a dialectical relationship. According to Glendinning, MacInnes, and MacKechnie, such a relationship has defined Scottish identity since the early part of the nineteenth century: 'In the Scottish context, this growing pride in the nation's past was closely

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[15] CURTIS, William J.R. 'Modern Architecture Since 1900', (London: Phaidon Press Limited, 1982, 1997), third edition, p. 131.
[16] Ibid., p. 131.

bound up with pride in the improving, imperialist present',[17] and this wider discussion will be continued after a consideration of the narratives of identity at the CMC and Te Papa.

At the MOS, a dichotomy is observable between the architecture and exhibitions at a conceptual level, but practically both are largely complementary having been designed to accommodate each other. Turning to the CMC however, the same cannot be said. Here the architecture remains largely autonomous of function and context, and for this reason it is again appropriate to consider the Museum's shell and contents separately for signs of 'competing narratives of identity'.

Undoubtedly the strongest and most coherent element of the CMC is its architectural form designed by Douglas Cardinal and his team. Together, the administrative and display buildings take up a far larger surface area than either the MOS or Te Papa, and their structures dominate the view of Hull from Ottawa. Also in comparison to both the other museums, the architect has made very few concessions to the buildings' immediate environment, and this blatant lack of contextualisation has produced an edifice that is 'arrogantly' autonomous. However, because of this very insensitivity to scale and context, the architect has enjoyed a free reign to sculpt the buildings to his liking, and this licence has produced an extremely strong and uncontested image of Canadian identity.

As was described in Chapter One, the built form of the CMC is derivative of the Canadian landscape just after the last Ice Age, with the exhibition wing specifically representing a melting glacier; the administrative wing, the Canadian Shield; and the forecourt, the country's characteristic plains. This natural choice of architectural reference along with the resultant sculptural and sinuous curves, locate the design unequivocally within the aesthetic school of Organicism, and this approach in turn has been found to draw much of its impetus from the National Romantic movement in which, as Curtis aptly writes, 'inspiration was even sought in the landscape itself, for example in typical plant or rock formations. In these cases, 'nature' was implicated in myths about the roots of culture in particular geographies'.[18]

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[17] GLENDINNING, Miles, MACINNES, Ranald, and MACKECHNIE, Aonghus. 'A History of Scottish Architecture from the Renaissance to the Present Day', (Edinburgh: Edinburgh University Press, 1996), p. 11.
[18] CURTIS, 'Modern Architecture Since 1900', pp. 131, 132.

It is unmistakeable that in his design for the national Museum of Civilization, Douglas Cardinal was attempting to implicate nature in myths about the roots of culture in Canada,[19] and just such a relationship between nature and culture is often promoted by 'core' nations in order to accentuate their strength and coherence. To quote Craig: 'In England, culture and nature underwrite one another: it is to that sustaining natural environment that its traditions will always return us, in order that we can know they are rooted in a fundamental and inviolable continuity, a continuity impossible to those from less richly endowed cultures.'[20] This correlation is a particularly strong device in the Canadian context for various reasons. Firstly, Canada is widely characterised by its diverse landscapes, and the natural world is therefore at the heart of Canadian identity. Moreover, nature is indeed perceived to be closely bound up with the roots of culture in Canada, with the country's indigenous population being believed to have formed a natural, close, and sustainable relationship to their native land, in diametric contrast to the colonists' large-scale exploitation, penetration, and domination of the environment. Indeed as has been seen, the architecture of the Museum even incorporates a subtle reflection of these associations. Lastly, as in the rest of the developed world, the Canadian nation has been unrecognisably altered by the advent of industrialisation, and the naturally-inspired National Romantic architecture at the CMC plays on feelings of nostalgia for the bygone rural age. As Curtis explains, 'it is scarcely an accident that this obsession with the land and its meaning should have emerged at precisely the same time that industrialization was rapidly destroying rural traditions',[21] and this dialectic will be discussed in more detail later. This naturally and nationally Romantic aesthetic adopted by Cardinal at the CMC is certainly a compelling depiction of identity, but as with Benson and Forsyth's approach at the MOS, it is far removed from the actual plural and contested identity of the modern nation. Indeed, it would appear that Cardinal has used nature as the primary symbolism and representation of nation in the built form of the CMC as a means of avoiding the currently complex and contested issue of Canadian multiculturalism. In the land, he has found a powerful and uncontroversial image of national identity, but crucially one that is romanticised and divorced from contemporary reality.

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[19] Ibid.
[20] CRAIG, 'Out of History', p. 24.
[21] CURTIS, 'Modern Architecture Since 1900', pp. 131, 132.

The strong message projected by the built form of the CMC is certainly not matched by the exhibitions inside, and this is in part due to the Museum's bombastic and functionally ill-conceived architecture. As a consequence of this design, the curators at the CMC were left with huge, impractical display areas, and as seen in Chapter Four, these cavernous halls themselves suggested the most appropriate type of exhibition. The resultant postmodernist 'streetscape' reconstructions were adopted in both the CMC's Grand and History Halls, and stand in almost direct contrast to the modernist rationale of the MOS's displays.

Firstly, the streetscape method of display utilised at the CMC is highly suited to the depiction of folk or social history, but equally, is largely inadequate for the portrayal of industrial or economic development. As a result, the displays in both the CMC's History Hall and the Grand Hall concentrate on social history at the expense of industrial heritage, and this bias is the exact reverse of that revealed at the MOS. Secondly, although authentic historical artefacts are still present within the CMC's Grand and History Halls, their importance has been fundamentally undermined by the surrounding subjective simulations or reconstructions. As a result of this move away from the genuine historical artefact, objectivity in its narrowest as well as its broadest sense, has been supplanted by subjectivity, and authenticity has been fundamentally devalued. Thirdly, and an extension to this lack of objectivity, is the fact that the roles of both visitor and curator in the CMC have been altered. For the visitor, the acquisition of modernist knowledge, described in Hooper-Greenhill's terms as an 'external, objective body of facts', has been replaced by direct experience, or 'internal, subjective negotiated interpretation', and therefore the 'passive absorption of information' characteristic of Modernity has been supplanted with 'active learning'.[22] However considering curatorial authority, although in the Grand Hall a certain amount of postmodernist 'collaboration with [indigenous] audiences, tested through evaluation' did augment the modernist 'internal process [of] curatorial authority',[23] the heritage methods employed at the CMC have, ironically, increased the scope of the curators' authority to shape subjectively the exhibition narrative, and this has been done in a sanitised and Romanticised way. In conclusion, the use of this postmodern heritage-based approach has to a large extent

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[22] HOOPER-GREENHILL, "Communication in Museums - Two Approaches", *Newslink*, Issue 16, June 1999, p. 3. Similarly, the use of multi-media and particularly computer installations has allowed the Museum visitor a personal and 'hands-on' entry into the collections and narrative. This opportunity has allowed the visitor to some extent, if only psychologically, to by-pass the didactic curator, and discover the collections for themselves.
[23] Ibid.

removed the academicism of the Museum experience, allowing a subjective, Romantic interpretation to prevail.

Finally, the depiction of identity in the CMC's displays, in contrast to the grand narrative at the MOS, recognises the complexity and plurality of the country's ethnic makeup by including artefacts and whole exhibitions on not only the mainstream 'European' Canadian identities, but also the native and immigrant ethnic minorities which together constitute a sizeable proportion of the population. However, the elevation of these indigenous and other minority cultures is done in a highly self-conscious way, revealing as its historical sub-text, the process of Imperial cultural devaluation. Moreover, with the exception of collaboration and input from native groups in the planning and manufacture of Grand Hall's reconstructed village, this display of multiculturalism is undoubtedly superficial, leaving the basically European, post-Enlightenment culture of collection and display practically unchallenged. In this way, the dominating Imperialist project, so characteristic of the episteme of Modernity, is still at the very heart of this seemingly multicultural museum.

In conclusion, National Romanticism and Modernity are both found to inform the depiction of identity at the CMC in complex and overlying ways. Within the exhibitions, this dialectic is played out between the overall modernist institutional ethos, and the contradictory pull of postmodern heritage techniques, and even the architecture, although chiefly grounded in a nationally Romantic aesthetic, has inevitably utilised the methods of the modern age in order to produce its 'geoform' structure: it 'embodies many state-of-the-art technologies: from the evolution of its form within the 'womb' of a computer's memory, through its nourishment and protection by computer-controlled environmental and security systems, to its nervous system made up of fibre-optic cables.'[24]

Of the three national museum casestudies examined, the Museum of New Zealand Te Papa Tongarewa offers the most holistic and sophisticated solution to the problem of representing the nation's identity, and this success is demonstrable at every level and scale of the Museum institution. Firstly, the biculturalism called for in the Museum's

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[24] MACDONALD, George, and ALSFORD, Stephen. 'A Museum for the Global Village', (Hull: Canadian Museum of Civilization, 1989), p. 5.

various briefs determined the process of acquisition and display of many of the Museum's pieces, and this negotiated approach to the material heritage of the nation was outlined in Chapter Four. Increasing the scale from the individual artefact to the exhibitions as a whole reveals an attempt, albeit elementary, to use the relevant paradigm of display for the Maori and pakeha exhibits respectively. As a result the Maori wing, in a reduced reflection of Maori society, is loosely organised around both historical and contemporary maraes, with areas for informal congregation and performance, whereas the 'galleries' within the pakeha wing relate to the rigidly orthogonal, didactic, and progressional paradigm of the European Enlightenment museum.[25] This differentiation of museological methods is far from perfect, but importantly is an attempt to introduce biculturalism beneath the surface of the Museum. On a larger scale again, this aim is also apparent in the architectural form of the building designed by JASMAX, which as already evinced, is a subtly powerful symbol of the nation's dual identity. The architects decided to separate the building into two distinct zones devoted to Maori and pakeha culture respectively, and gave quite different architectural treatments to each, reflecting both their contained material artefacts and the cultural tradition more widely. However in the words of Hunt, 'both designs were careful to avoid the use of culturally significant forms, borrowed from either Maori or European heritages, as a strategy for depicting national identity. Both saw identity as a far more subtle and complex issue, needing to be evoked in diverse ways by the architecture of the museum'.[26] The Maori wing, for example, is aligned and shaped to embrace its natural environment of Lambton Harbour and Mount Victoria, thereby adhering to the cultural and historical traditions of Maori native mythology. This is another clear example of 'nature' being 'implicated in myths about the roots of culture in particular geographies',[27] and is therefore a contemporary critique on, or continuation of New Zealand's native National Romantic tradition. At the opposite side of the site and jarring with this naturally-inspired informality, is the pakeha wing, which was conceived as an extension in miniature of Wellington's urban fabric. As seen in Chapter Three, the orthogonal layout of galleries in this block was intended as a physical and conceptual continuation of Wakefield's modern, European plan for the city, which, like Edinburgh's New Town, was heralded for its rationality, symmetricality, and

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[25] 'Gallery' is a European term deriving from the old French 'galerie', and the Italian 'galleria'.
[26] HUNT, John, 'Process of Selection', in "The Designing of Te Papa", *Architecture New Zealand*, special issue, 1998, p. 15.
[27] CURTIS, 'Modern Architecture Since 1900', pp. 131, 132.

suppression of nature. Simply, in an analogous way to the MOS's core gallery,[28] the pakeha wing of Te Papa expresses Enlightenment ideals through a scaled-down representation of the Enlightenment-inspired urban development contiguous with it. Therefore, in this case of Te Papa, the 'competing narratives of identity' are given a physical embodiment, which corresponds with the exhibitions. This is well demonstrated by the 'wedge-shaped' interface between both wings, which appropriately houses a display on the Treaty of Waitangi that has itself defined the relationship between both ethnicities in New Zealand since its signing. The architects stress the notion of this triangular space both joining and separating the two distinct cultures on display at the Museum, and this is surely demonstrative of a positive, but realistic attitude to the nation's biculturalism.

Overarching both the displays and the architecture, is the Museum institution as a whole, and this also makes concessions to biculturalism. This commitment is most publicly demonstrated in the management structure of the Museum, in which both Maori and pakeha professionals have lent their expertise to all aspects of the establishment and running of the Museum. As seen in Chapter Four, this partnership extends to the very top of the recruitment ladder, with Cheryl Southeran, a pakeha New Zealander, and Cliff Whiting of Maori origin, sharing the responsibilities and decisions involved in the role of Chief Executive Officer. Such biculturalism is manifested in an even more integral and pervasive way at Te Papa however, in the language used both in its exhibitions, and in the wider surrounding literature. As was seen in Chapter One, this conglomeration of ideologies is particularly apparent in the Museum's architectural guide, which expresses the origins of the land in the fused languages of pakeha science and Maori mythology: 'In these shaky isles the land has many powers. It broke off from Gondwanaland more than 60 million years ago, and drifted south. Rising and sinking many times, scoured by sea and sky, fished from the sea by Māui, it slowly formed itself...'[29] That such a description in the building's official architectural guide can and does integrate the almost diametrically opposed languages of Maori native mythology, and pakeha scientific rationalism, is surely indicative of the sincere commitment to create a truly bicultural Museum.

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[28] The use of exactly the same design strategy in both the MOS and Te Papa is probably just a coincidence. During my interview with one of the senior design partners at JASMAX, Ivan Mercep, it became clear that he was unaware of the MOS project, and as the Te Papa project was slightly later in date than that of the MOS, it is unlikely that any ideas were appropriated the other way round.
[29] BOSSLEY, Pete. 'Te Papa. An Architectural Adventure', (Wellington: Te Papa Press, 1998), 'the earth papatūānuku'

It is evident that despite the common insecurities shared by all three countries with regards to nationhood, appreciable differences are present between the representation of identity in their national museums, and many of these can be expressed in terms of 'integration'. Te Papa is undoubtedly the most integrated and therefore coherent solution of the three museums, with its architecture and exhibitions being planned cohesively, both practically and conceptually, in order to achieve an integrated approach to biculturalism. Crucially, this biculturalism transcends the superficial to affect the institution fundamentally at every level of its operation, and in this respect Te Papa is unique in terms of this study. The CMC in contrast, shows little integration between its built form and material culture, either practically or conceptually. It does, however, depict Canada's multi-cultural society in the subject matter of its displays, but this acknowledgement of the nation's plural ethnicities does not extend to any deeper intrinsic level as at Te Papa, rather remaining contained within the European Enlightenment model of the museum. At the furthest extreme, the MOS largely fails to acknowledge the complexity of Scottish identity within its displays, promoting rather the notion of a coherent 'core' culture, which as explained, confines it to the model of Modernity. However, this homogenous identity has been interpreted and symbolised quite differently by the Museum's architects and curators, producing a dialectic between Romantic Nationalism and Modernity, which leads to the overall conclusion of this thesis.

At the crux of the matter, it has become apparent that despite these differences with regards to the representation of identity, the three national museums have one crucial and unassailable characteristic in common: they all exhibit a dialectical relationship between Romantic Nationalism and Modernity, or myth and Enlightenment.

As charted by Habermas in the opening quotation of this Conclusion, the European Enlightenment of the late eighteenth century overwhelmed the mythology and chaos of the pre-modern episteme, replacing it with a new objective rationality. The old knowledge was subsumed and supplanted by a new understanding in which, as Hooper-Greenhill explains, 'the activity of mind, knowing, was no longer to consist of drawing things together, but in setting things apart, in discriminating on the basis of difference, rather than joining on the basis of similitude'.[30] And, from this new

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[30] HOOPER-GREENHILL, Eilean. 'Museums and the Shaping of Knowledge', (London & New York: Routledge, 1992), p. 15.

differentiating or classificatory condition, both the nation state and the modern museum arose.

Within such an historical context, it is entirely unsurprising to find, as has been the case, that the three contemporary national museums explored all exhibit aspects of this episteme of Modernity in both their exhibition and architectural design. Firstly, the material object has retained a place in all three of the museums, keeping alive the modernist notions of objective analysis and historical 'truth' or authenticity. Similarly, echoes or sometimes full-scale reverberations of modernist didacticism, authority, and control are palpable in all three museums, and despite varying attempts at pluralism,[31] the hegemony of the 'core' culture is frequently discernible, eschewing the fractured, layered conversations of postmodernism. The influence of the modernist paradigm is also evident in the very fabric of each museum, with the MOS and Te Papa in particular, consciously symbolising the ordered and 'enlightened' form of early modern urban development. Therefore in many respects, the casestudy museums are a continuation of the dominant, post-Enlightenment schema of Modernity.

Crucially however, despite such clear indications of the rationale of Modernity, the three contemporary museums investigated in this thesis all demonstrate that modern theory no longer has an all-encompassing grip on the national museum, and in order to understand fully the reason for this, it is vital to consider a wider theoretical perspective. A long line of thinkers from Hegel, through Adorno and Horkheimer, to contemporary critics such as Popper, have argued that human thought is intrinsically dialectical, specifically proposing that the pre-modern episteme and Modernity, or myth and Enlightenment, exhibit just such a relationship. For example, in the words of Adorno and Horkheimer, 'just as the myths already realize enlightenment, so enlightenment with every step becomes more deeply engulfed in mythology. It received all its matter from myths...' They proposed that the mythology and subjectivity of the pre-modern era has sustained the calculated objectivity of Enlightenment thought, and vice versa: the Enlightenment has drawn on the pre-modern world of myths, and would have been entirely impotent without its contradictory, antithetical flow. Most fascinating and fundamental to this thesis, is

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[31]Pluralism is defined as, 'the condition of society in which different ethnic, (etc.), groups preserve their own customs, or hold equal power'.

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the fact that this dialectic is detectable in the displays and architecture of each of the three case study museums.

The architectural forms of the museums definitely constitute the most conspicuous expression of this dialectical counter-current to the schema of Modernity, and at the CMC this has taken the form of a nationally Romantic symbolisation of Canada's pre-modern natural landscape. Such a portrayal of nation stands in stark contrast to the industrialisation of the modern era, and critically, romanticises the rural traditions of the pre-modern age. In a similar way, the MOS and Te Papa also evoke the pre-modern world in their built forms, but in both these cases it is the man-made as well as the natural environment that acts as an inspiration. In a vital juxtaposition, both buildings offset their built references to the modern era, with powerful, if abstracted, evocations of indigenous, pre-modern structures, thereby physically manifesting the proposed dialectic between Romantic Nationalism and Modernity, or myth and Enlightenment. In all three cases, the pre-modern era has been used as a source for a romanticised and emotive interpretation of nation, and without this antithetical depiction of national identity, the adjacent representations of Modernity would be largely impotent. Seminally, these dialectical representations allow all three museums to embrace the seemingly opposing strands of their national identities, which are in each case, as we see here in the Scottish context, in fact mutually supporting: 'the growing pride in the nation's past was closely bound up with pride in the improving, imperialist present.'[32]

However, although most directly expressed in their architecture, all three museums also challenge the overarching episteme of Modernity in their exhibition design, but this is achieved via the medium of post-, rather than pre-Modernity. At the height of the Modern Movement's hold, many people began to question its extremism, which, 'ruthlessly, in despite of itself, ... has extinguished any trace of its own self-consciousness',[33] and from this mistrust, postmodernism arose. Baudrillard,

> interprets modernity as a process of explosion of commodification, mechanization, technology and market relations, in contrast to postmodern society, which is the site of an *'implosion'* of all boundaries, regions and

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[32] GLENDINNING, MACINNES, and MACKECHNIE, 'A History of Scottish Architecture from the Renaissance to the Present Day', p. 11.

[33] ADORNO, Theodor, and HORKHEIMER, Max. 'Dialectic of Enlightenment', (London & New York: Verso, 1944, 1992), third edition, p. 4.

distinctions between high and low culture, appearance and reality, and just about every other binary opposition maintained by traditional philosophy and social theory,[34]

and signs of this 'implosion' are apparent in each of the contemporary national museums under investigation. It is at the CMC and Te Papa in particular, that the modernist binary opposition between appearance and reality has been most radically challenged, and in the case of the Canadian museum, this 'implosion' has been brought about by the use of heritage techniques. The reconstruction and re-enactment of historical scenes in the Museum's History Hall, and to a lesser extent its Grand Hall, blur the divide between appearance and reality, or myth and authenticity, and as such challenge the dominance of Modernity in the Museum. The same effect is achieved by a different medium at Te Papa, with the computer-simulated rides producing the ultimate ambiguity between appearance and reality: 'virtual reality'. Additionally, the very inclusion of such rides signals the breakdown of the distinction between high and low culture, and although maybe nowhere as strongly as at Te Papa, this replacement of culture and knowledge with entertainment and experience can be seen in all three institutions. Finally, the modernist dichotomy between 'core' and 'peripheral' cultures has undoubtedly been fragmented by a negotiated pluralism, especially at Te Papa, and this challenge to the modernist grand-narrative of identity is characteristic of postmodernism. It can be concluded, that just as a nationally Romantic interpretation of pre-Modernity has challenged the hegemony of Modernity in the architecture of the museums, so too has post-Modernity in their exhibitions. Decisively, this shift towards postmodernism has resulted in exactly the same dialectic:

> In practice, of course, a hybrid cosmopolitan culture would possess both 'modern' and 'post-modern' features. We would expect it to display both the rationalist, technical and scientific discourse of modernity, but also the ambivalent and nostalgic, if cynical and artificial manipulation of a plural hybridized past, with its folk traditions and its national languages and cultures, which distinguishes the 'post-modern' reaction to modernity.[35]

Modernity, which provided the epistemological foundation for both the modern museum and the nation-state, has been shown to have retained an influence in both

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[34] KELLNER, Douglas. 'Jean Baudrillard: From Marxism to Postmodernism and Beyond', (Cambridge: Polity Press, 1989).
[35] SMITH, Anthony D. 'Nations and Nationalism in a Global Era', (Oxford & Cambridge: Polity Press, 1995), p. 20.

the displays and architecture of the MOS, as well as the CMC and Te Papa. However it has been found, in accordance with Macdonald and Fyfe, that, 'if museums … have collaborated in the formation of modernity and the nation-state, they have also come to question many of modernity's 'totalising paradigms' and to share many of the same insecurities about how to represent in the contemporary world'.[36] This challenge has come in the form of a nationally Romantic narrative of identity, drawn from both pre- and post-Modernity, which crucially is apparent in all three of the museum casestudies investigated. True to Adorno and Horkheimer's assertion that, '…enlightenment still recognizes itself even in myths',[37] in each museum these two competing narratives of Romantic Nationalism and Modernity have drawn strength from each other, exhibiting a fundamentally dialectical relationship.

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[36] MACDONALD and FYFE, 'Theorizing Museums. Representing Identity and Diversity in a Changing World', p. 37.
[37] ADORNO and HORKHEIMER, 'Dialectic of Enlightenment', p. 6.

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