

**Medium, Mediation and Interpretation:
Museum Architecture as Spatial-Storytelling**

-

**A Case Study of the Ionic Frieze
in
Two Parthenon Galleries**

Fangqing Lu, BArch, MArch,

**Thesis submitted to the University of Nottingham
for the degree of Doctor of Philosophy**

August 2012

Abstract

In order to convey the meanings contained within artefacts, museums commonly communicate with the general public primarily through the mediation of an audiovisual interpretative framework. In addition to audiovisual mediation, this thesis demonstrates the idea that museum architecture itself can make a significant contribution to various meanings communicated by artefacts. Drawn from a comparative case-study of the detailed interpretive frameworks of two museums, the thesis investigates the extent to which museum architecture itself should be considered as a medium of spatial-storytelling, providing a rich sensory context for the process of mediation and interpretation. This idea contributes towards a more meaningful embodied experience to the general public in order to support the process of ‘self-learning’, as well as passing on intangible culture through both tangible and intangible media.

Through an initial survey and conceptual mapping of 130 museums around the world, two examples were selected effectively that offered a unique opportunity for comparative study as they are effectively exhibiting the ‘same’ material in different ways - the Ionic Frieze at the Parthenon Galleries in the British Museum and the recently opened New Acropolis Museum in Athens. Besides this survey of museums, other research methods included a literature review, interviews architectural analysis and observation of visitor behaviour, as the key data collection tools employed in this research, in order to evaluate the effectiveness of museum architecture as a medium.

The thesis concludes that museum architecture offers an engaging environment for communicating meanings through ‘self-learning’, not only in terms of audiovisual techniques, but also through a careful organised embodied experience of an entire space. Moreover, museum architecture provides the artefacts a meaningful physical context in which they can ‘speak’. Culture, as an intangible medium, is recorded in the

tangible media of artefacts, and buildings, while also being carried forward into an unknown future.

Acknowledgements

Dedicated to My Mother and My Father

First and foremost, I would like to take this opportunity to express my sincere and deep gratitude to my mother and my father, for their eternal love, support and encouragement.

I would like to extend my grateful thanks to my supervisors Dr. Jonathan Hale, Dr. Laura Hanks and Dr. Qi Wang, for their insightful supervision, valuable feedback, constant patience and help throughout the development of the research project and the completion of this thesis. I would also like to thank Dr. Darren Deane, the internal examiner of my first and second year reviews, for his critical and helpful suggestions on my research study. Also, I would like to thank Dr. Didem Ekici and Mr. Stephen Greenberg for agreeing to be my examiners.

Last but not least, I would like to thank Ms. Evelyn Vouza, archaeologist of the Parthenon Gallery in the New Acropolis Museum, Athens, for her generosity in sharing her knowledge, and kindness in helping me during my case studies in Athens in October 2010 and August 2011.

List of Contents

Abstract	i
Acknowledgements	iii
List of Contents	iv
List of Figures	x
Glossary	xviii
Introduction	1
Hypothesis of the Research	1
Key Ideas of the Research	2
Methodology of the Research.....	8
Structure of the Thesis.....	10
Part One <i>Theory</i>	13
Chapter One Literature Review	13
1.1 Structural Linguistics	13
1.2 Philosophical Hermeneutics	17
1.2.1 The notion of ‘life-world’	17
1.2.2 Hermeneutics	19
1.3 Narrative Theory	23
1.3.1 Definition of Narrative	23
1.3.2 Representation of Narrative	24
1.3.3 Storytelling-Interpretation: Medium of Action and Medium of Representation	25
1.3.4 Narrative and Time	27
1.4 The Idea of Context.....	28

Chapter Two	Museum the Medium: Storytelling as Methodology Being Applied in Museum Architecture	38
2.1	Introduction	38
2.2	Storytelling in Museum Architecture: A Historical Overview	39
2.2.1	Museum Collecting Artefacts as Self-learning Environment	39
2.2.2	Storytelling as an Abstract Oral Usage	44
2.2.3	Storytelling as a Physical Context	46
2.2.4	Storytelling as a Method	49
2.3	Medium - Audiovisual Texts	52
2.3.1	Text and Artefact.....	52
2.3.2	Methodology of Storytelling in Museum - Shift from Written-Text-Interpretation to Verbal-Storytelling	55
2.3.3	Medium of Verbal-Storytelling - Audiovisual Texts.....	56
2.4	Medium - Meaningful Artefacts.....	57
2.4.1	Functional Meanings.....	59
2.4.2	Metaphorical Meanings.....	60
2.4.3	Narrative Meanings.....	66
2.4.4	Material Meaning.....	71
2.5	Medium - Museum Architecture: Spatial-Storytelling?.....	72
2.5.1	Intangible Medium - Space	73
2.5.2	Tangible Medium - Material	77
2.6	Conclusion	79
Chapter Three	The Ionic Frieze on the Parthenon Temple as Spatial-Storytelling.....	82
3.1	Weaving the Frieze	82
3.1.1	Weaving Architecture; From Branches to Stone	82

3.1.2	Frieze in Classical Architecture	84
3.1.3	Weaving the Panathenaia Peplos: The Frieze as Textile-Storytelling Device in Ancient Greece	87
3.2	Weaving the Panathenaia: Ionic Frieze on the Parthenon Temple as Spatial-Storytelling	91
3.2.1	The Parthenon Temple from a Historic View	92
3.2.2	Medium of Spatial-Storytelling.....	102
3.2.3	Weaving the Culture: Significance of Spatial-Storytelling.....	114
Part Two <i>Practice</i>		117
Chapter Four The Parthenon Gallery in the British Museum		117
4.1	Background Introduction	117
4.1.1	The British Museum.....	117
4.1.2	The Duveen Gallery	127
4.1.3	The Content of the Ionic Frieze in the Duveen Gallery	133
4.2	Building and Content: The Duveen Gallery and the Ionic Frieze of Elgin Marbles	134
4.2.1	Circulation.....	134
4.2.2	Space Layout.....	135
4.2.3	Lighting	142
4.2.4	Material	144
4.3	Communicating in the Museum: Audiovisual Texts Translate Significant Meanings of the Ionic Frieze	146
4.3.1	On-site	146
4.3.2	In the North Information Gallery	147
4.3.3	In the South Information Gallery	153
4.3.4	In the Main Gallery	157
4.4	Summary - Scales of Context.....	161

4.4.1	Ionic Frieze as a Two-sided Sequence and the British Museum	161
4.4.2	Ionic Frieze as a Two-sided Sequence and the Duveen Gallery	163
4.4.3	Ionic Frieze as a Two-sided Sequence and Other Parthenon Sculptures	165
4.4.4	Ionic Frieze as a Single-sided Sequence and the Central Wall of the Duveen Gallery	166
Chapter Five The Parthenon Gallery in the New Acropolis Museum ..		168
5.1	Background Introduction	168
5.1.1	The New Acropolis Museum	168
5.1.2	The NAM Parthenon Gallery	179
5.1.3	The Content of the Ionic Frieze in the NAM Parthenon Gallery	181
5.2	Building and Content: The NAM Parthenon Gallery and the ‘Complete’ Ionic Frieze	182
5.2.1	Circulation	183
5.2.2	Space Layout	187
5.2.3	Lighting	197
5.2.4	Material	201
5.3	Communicating in the Museum: Audiovisual Texts Translate Significant Meanings of the Ionic Frieze	204
5.3.1	On-site	204
5.3.2	In the Atrium	205
5.3.3	In the Information Centre	209
5.3.4	In the Main Gallery	210
5.4	Summary - Scales of Context	222
5.4.1	‘Complete’ Ionic Frieze and the Parthenon Temple and the Urban	222
5.4.2	‘Complete’ Ionic Frieze and the New Acropolis Museum	223

5.4.3	‘Complete’ Ionic Frieze as an Original Four-sided Sequence and the NAM Parthenon Gallery	224
5.4.4	‘Complete’ Ionic Frieze and Other Parthenon Sculptures	226
5.4.5	Ionic Frieze as the Original Single-sided Sequence and the Central Wall of the NAM Parthenon Gallery	227
Chapter Six Comparison of the Two Parthenon Galleries		230
6.1	Building and Content: The Parthenon Gallery as a Medium for the Ionic Frieze	230
6.1.1	Historical Background	230
6.1.2	Circulation.....	231
6.1.3	Space Layout.....	234
6.1.4	Lighting and Material.....	238
6.2	Translating Significant Meanings of the Ionic Frieze: Effectiveness of Audiovisual Texts.....	240
6.2.1	Individual Audiovisual Text Translates Meanings	240
6.2.2	Collective Audiovisual Texts Translate Meanings	243
6.3	Content and Context: Embodied Experience of Medium in Continuing Culture	247
6.3.1	Spatial-storytelling: Significance of Medium	247
6.3.2	The Panathenaia and Memory.....	248
Part Three Conclusion		252
Chapter Seven The Museum as Medium.....		252
7.1	Artefact.....	252
7.1.1	Content	252
7.1.2	Representation.....	253
7.2	Architecture.....	255
7.2.1	Content	255

7.2.2	Representation.....	256
7.3	Audiovisual Texts	264
7.3.1	Content	264
7.3.2	Representation.....	267
Overall Conclusion		271
	Overall Ideas of the Research.....	271
	Significance of the Research	278
	Suggestions for Further Research.....	281
Bibliography		284
Appendix I Museum List.....		294

List of Figures

Figure 2.1	Rosetta Stone in the British Museum	63
Figure 2.2	Mona Lisa	63
Figure 2.3	Winged Victory of Samothrace	63
Figure 2.4	Venus de Milo	63
Figure 2.5	Duchamp - the Fountain	64
Figure 2.6	Picasso - Guernica	64
Figure 2.7	Anne Frank's Diary	68
Figure 2.8	One section of the whole painting - Along the River during the Qingming Festival	68
Figure 2.9	Bernini - sculpture of Apollo and Daphne	68
Figure 2.10	The Parthenon Temple	68
Figure 2.11	Interior space of Frank Lloyd Wright's Guggenheim Museum	75
Figure 2.12	Interior space of Frank Gehry's Bilbao Guggenheim Museum	75
Figure 2.13	Interior space of the Gallery of minerals in the Natural History Museum, London	77
Figure 3.1	The Doric Order	84
Figure 3.2	Composition of Entablature	84
Figure 3.3	The Doric Frieze	86
Figure 3.4	Horizontal style of the Frieze	89
Figure 3.5	Ladder-like Frieze	89
Figure 3.6	Model of the Acropolis with the monument of the classical period	94
Figure 3.7	Plan of the Acropolis	94
Figure 3.8	Building the Parthenon	96
Figure 3.9	Plan of the Parthenon	97
Figure 3.10	A perspective reconstruction of the interior of the Temple, with the statue of Athena Parthenos	97
Figure 3.11	Reconstruction of the west chamber of the Parthenon	97

Figure 3.12	Reconstruction of the east façade of the Parthenon, which presents levels of sculptures	100
Figure 3.13	Perspective section of east side of the Parthenon	100
Figure 3.14	Reconstruction of the order of the Parthenon	100
Figure 3.15	The route of the Panathenaia procession	104
Figure 3.16	Phidias and the Parthenon	105
Figure 3.17	Routes of the Ionic Frieze in the Parthenon Temple	106
Figure 3.18	Route approaching the Parthenon	108
Figure 3.19	The Propylaea	108
Figure 3.20	View from the Propylaea	109
Figure 3.21	View from the Propylaea	109
Figure 3.22	Plans of older and later Parthenon superimposed	110
Figure 3.23	Plan and Elevation of the Parthenon showing the 9:4 ratio of the width to the height and of the interaxial to the diameter of the columns	111
Figure 4.1	British Museum lower floor plan	119
Figure 4.2	British Museum ground floor plan	119
Figure 4.3	British Museum upper floor plan	119
Figure 4.4	Four Treasures of the British Museum	119
Figure 4.5	Thomas Bruce	120
Figure 4.6	The temporary room exhibiting Elgin Marbles in 1917	120
Figure 4.7	The Elgin room	122
Figure 4.8	The Elgin room	122
Figure 4.9	Russell Pope	128
Figure 4.10	US National Gallery of Art	129
Figure 4.11	US National Archives	128
Figure 4.12	American Pharmaceutical Association	128
Figure 4.13	Jefferson Memorial	128
Figure 4.14	Proposals for the Duveen Gallery	130
Figure 4.15	Proposals for the Duveen Gallery	130

Figure 4.16	Final proposal for the Duveen Gallery	131
Figure 4.17	British Museum ground floor	131
Figure 4.18	Plan of the Duveen Gallery	132
Figure 4.19	Plan of the Duveen Gallery	132
Figure 4.20	Interior of the Duveen Gallery	133
Figure 4.21	Interior of the Duveen Gallery	133
Figure 4.22	Plan of locations of the Ionic Frieze in the Duveen Gallery	133
Figure 4.23	British Museum ground floor plan	134
Figure 4.24	Interior of the Duveen Gallery	135
Figure 4.25	Interior of the Duveen Gallery	135
Figure 4.26	Interior of the Duveen Gallery	136
Figure 4.27	Plan of the Duveen Gallery	137
Figure 4.28	Perspective A	137
Figure 4.29	Perspective B	137
Figure 4.30	Perspective C	137
Figure 4.31	Perspective D	137
Figure 4.32	Perspective E	137
Figure 4.33	Original Sequence of Ionic Frieze on the Parthenon Temple	138
Figure 4.34	Diagram presents sequence change - Step One - The east and the north Ionic Frieze remain, the south and west Ionic Frieze rotates	138
Figure 4.35	Diagram presents change - Step Two - The east Ionic Frieze remains, the north Ionic Frieze rotates	138
Figure 4.36	Diagram presents sequence change - Step Three - The east Ionic Frieze remains, other Ionic Frieze rotate	139
Figure 4.37	Diagram presents sequence change - Final Presentation of Ionic Frieze in the Duveen Gallery	139
Figure 4.38	Interior of the Duveen Gallery	142
Figure 4.39	Roof above the Ionic Frieze on the Parthenon Temple	142
Figure 4.40	Diagram presents the route of the sun projecting sunlight on Ionic Frieze	142
Figure 4.41	Audiovisual Interpretation on interpreting the Ionic Frieze	145
Figure 4.42	Interior of the north information Gallery	147

Figure 4.43	Text Board of THE PANATHENAIA WAY	147
Figure 4.44	Text Board of PLAN OF PARTHENON	148
Figure 4.45	Text Board of Text Board of THE PARTHENON SCULPTURES	148
Figure 4.46	Text Board of THE WEST FRIEZE OF THE PARTHENON	149
Figure 4.47	Image presented on the text board - Three signs on the right corner are designed for symbolising different figures presented on the Ionic Frieze	149
Figure 4.48	Cast of the West Ionic Frieze	151
Figure 4.49	Small text board of casts	151
Figure 4.50	Interior of the south information Gallery	153
Figure 4.51	Text board of the film presentation	153
Figure 4.52	Film Presentation	155
Figure 4.53	Image board	155
Figure 4.54	Text Board of the Ionic Frieze in relation to other significant artefacts in the museum	155
Figure 4.55	Central Text Board and Vertical Text Board in the Main Gallery	156
Figure 4.56	Central Text Board	156
Figure 4.57	Text Board below the Ionic Frieze	157
Figure 4.58	Detail of text board	157
Figure 4.59	Diagram presents the routes of the Ionic Frieze	163
Figure 5.1	Aerial view of the Acropolis Museum and surrounding area	167
Figure 5.2	Aerial view of the location of the selected museum site - Makriyianni site for the third competition	167
Figure 5.3	Museum Section presents the location of the Parthenon sculptures	168
Figure 5.4	Museum section presents key architectural elements of the design	168
Figure 5.5	Museum site plan	170
Figure 5.6	Interior perspective of Nicoletti's design	170
Figure 5.7	Physical model represents the museum site - Nicoletti's design	170
Figure 5.8	The Weiler building as seen from direction of the Acropolis direction	171

Figure 5.9	Computer model shows the relationship between the new museum and the archaeological excavation below, and the visual link between the new museum and the Parthenon Temple	172
Figure 5.10	Basement floor plan	174
Figure 5.11	Ground floor plan	174
Figure 5.12	First floor plan	175
Figure 5.13	Mezzanine floor plan	175
Figure 5.14	Third floor plan	175
Figure 5.15	Roof plan	175
Figure 5.16	The gallery of slopes	176
Figure 5.17	The Archaic Gallery seen from the mezzanine balcony	176
Figure 5.18	Transversal section	177
Figure 5.19	Longitudinal section	177
Figure 5.20	Floor plan of the NAM Parthenon Gallery with functions	178
Figure 5.21	Floor plan of the NAM Parthenon Gallery with displayed artefacts	178
Figure 5.22	Floor plan of the NAM Parthenon Gallery with Ionic Frieze	179
Figure 5.23	The white replicas of the east Ionic Frieze	179
Figure 5.24	The original ninth block of the west Ionic Frieze in both yellowish colour and white colour	180
Figure 5.25	Sketches of perspectives in the NAM Parthenon Gallery in the museum	180
Figure 5.26	Museum map: bottom-top: level 0 - level 3	181
Figure 5.27	Circulation diagram by Bernard Tschumi	182
Figure 5.28	Entering into the NAM Parthenon Gallery and seeing the Parthenon Temple and the Acropolis	183
Figure 5.29	Visual link between the NAM Parthenon Gallery and the Parthenon Temple	183
Figure 5.30	Loss of the space between the columns	184
Figure 5.31	West Ionic Frieze - most complete original part of Ionic Frieze	184
Figure 5.32	Site plan of the New Acropolis Museum and the Acropolis	185
Figure 5.33	Routes of the 'complete' Ionic Frieze	186

Figure 5.34	Sketch presents the difference between the original Ionic Frieze and the replica, the shades distinguished the difference - perspective K	187
Figure 5.35	Photo presents the difference between the original Ionic Frieze and the replica	187
Figure 5.36	Sitting on the east platform, looking northwest, the Photo presents from the furthest to the nearest: Ionic Frieze, metopes, pediments, and some fragments	188
Figure 5.37	Floor plan of the NAM Parthenon Gallery is divided into several tunnel-like spaces	189
Figure 5.38	Photo presents the north platform	189
Figure 5.39	Sitting on the east side platform, the Sketch presents three levels of locations of sculptures: metopes on the highest level, pediments on the lowest level, and Ionic Frieze in the middle level - Perspective L	189
Figure 5.40	Sketch presents the tunnel-like space between the long side platform and metopes - Perspective M	189
Figure 5.41	Floor plan of the NAM Parthenon Gallery presents the difference between the area in front of the west pediments is wider than the area in front of the east pediments	190
Figure 5.42	Sketch presents the Ionic Frieze be seen through the formed by the steel columns - Perspective I	190
Figure 5.43	Sketch presents the back of the west Ionic Frieze - Perspective D	191
Figure 5.44	Sketch presents the difference between the original Ionic Frieze (with shades) and the replica - Perspective K	192
Figure 5.45	Present interpretation	192
Figure 5.46	Suggested interpretation	192
Figure 5.47	The Archaic Gallery during the day	196
Figure 5.48	The Archaic Gallery during the night	196
Figure 5.49	Lighting system of the NAM Parthenon Gallery	197
Figure 5.50	Detail of double-glass façade	197
Figure 5.51	Area in front of the west Ionic Frieze	197
Figure 5.52	Ionic Frieze of The Elgin Marbles in the Duveen Gallery in the British Museum	200
Figure 5.53	Floor plan of the NAM Parthenon Gallery with Audiovisual	

	Interpretation on Ionic Frieze	202
Figure 5.54	Sketch of the physical model and other displays in the atrium - Perspective B	204
Figure 5.55	Model display	204
Figure 5.56	Sketch of the text board and the information centre - Perspective A	206
Figure 5.57	Sketch of text board	206
Figure 5.58	The Ionic Frieze and the text board below	209
Figure 5.59	Sample of text board	210
Figure 5.60	Sketch suggests the translations of meaning from marble presentation to visual level, and to text level	210
Figure 5.61	Sketch of the special text board in front east Ionic Frieze - Perspective C	212
Figure 5.62	Details of special text board	213
Figure 5.63	Marble presentation of Athena identified on the east Ionic Frieze	213
Figure 5.64	Image presented on the special text board	213
Figure 5.65	Floor plan of the NAM Parthenon Gallery	215
Figure 5.66	Sketch presents the back of the original Ionic Frieze and the replica of its front part displayed on the wall	216
Figure 5.67	Enlarged plan of the display	216
Figure 5.68	Sketch of the label	216
Figure 5.69	Sketch presents the original fragment of Ionic Frieze on loan from the Vatican Museum and the replica of this original fragment displayed on the wall	218
Figure 5.70	The west colonnaded space of the Parthenon Temple	220
Figure 5.71	The west colonnaded space of the Parthenon Temple	220
Figure 5.72	A perspective reconstruction from the west pteroma	220
Figure 5.73	Sketch presents that there is a missing part of text board below the south Ionic Frieze	223
Figure 6.1	Circulation of the Duveen Gallery in the British Museum	230
Figure 6.2	Circulation Diagram of the NAM Parthenon Gallery in the New Acropolis Museum	230

Figure 6.3	Space Layout of the Duveen Gallery	232
Figure 6.4	Space Layout of the NAM Parthenon Gallery	232
Figure 6.5	Lighting in the Duveen Gallery: photo and section	236
Figure 6.6	Lighting in the NAM Parthenon Gallery: photo and section	237
Figure 6.7	Linear Sequence of Audiovisual Interpretation in the North Information Gallery in the Duveen Gallery	241
Figure 6.8	Horizontal Circular Sequence in South Information Gallery in the Duveen Gallery	242
Figure 6.9	Vertical Circular Sequence in the NAM Parthenon Gallery	243

Glossary

Cornice: In classical architecture, the top, projecting section of an entablature.

Cymatium: The top number of a cornice in a classical entablature.

Entablature: The upper part of an order, consisting of architrave, fascia, frieze, fascia, cornice and cymatium.

Fascia: A board or plate covering the end of roof rafters.

Frieze: The middle division of an entablature.

Hexastyle: A portico has six columns along its short side.

Metope: The square space between two triglyphs in the frieze of a Doric order.

Naos: The sanctuary or principal chamber of a Greek temple, containing the statue of the god.

Opisthodomos: The enclosed section at the rear of a Greek temple.

Oxastyle: A portico has eight columns along its short side.

Pediment: In classical architecture, a low-pitched gable above a portico.

Portico: A roofed space, open or partly enclosed, forming the entrance and centrepiece of the façade of a temple, house or church.

Pronaos: The vestibule of a Greek or Roman temple, enclosed by side walls and a range of columns in front.

Text: For Ricoeur, a text is any discourse fixed by writing. Based on this idea, the researcher would like to suggest that a text is the abstract concept of any discourse that can be fixed by human action.

The Duveen Gallery: The Parthenon Gallery in the British Museum

The NAM Parthenon Gallery: The Parthenon Gallery in the New Acropolis Museum

Introduction

Hypothesis of the Research

If museums are to have a cultural role as distinct from that of the theme park, it lies in helping us orient ourselves and make discoveries in a world in which inherited common-sense conceptions of time and place are increasingly redundant.¹

Museum architecture occupies a dominant position in the contemporary era. Regardless of generating debate in the academic area or converging foci in the field of practice, from the view point of the researcher, museum architecture is distinguished from other types of architecture due to its cultural significance. In accordance with one of the definitions as outlined in the *Oxford English Dictionary*, the researcher will use the term ‘culture’ to mean the ideas, customs, and social behaviour of a particular people or society. Therefore, the cultural significance of museum architecture could be understood as a place where, typically, ideas, customs and social behaviour of societies can be cultivated. Here, the term ‘societies’ refer to all those past societies within which humans’ ancestors have ever lived, and the present societies within which human beings are currently experiencing and innovating life. In other words, by means of displaying past civilisations, museum architecture, at the same time, encourages ideas, customs and social behaviour of contemporary societies to be accumulated and shaped by the past. The major cultural significance of museum architecture lies in how it connects past cultures with the present world. At the same time, museum architecture interprets and extends these cultures into the unknown future, passing them on from generation to generation in tangible form.

The hypothesis of this research is to test the idea that museum architecture can be regarded as a medium of spatial-storytelling, and a mediator of cultural meaning. The

¹ Lumly, Robert. *The Museum Time-Machine: Putting Cultures on Display*, London: Routledge, 1988, p. 18.

theoretical model of this research is to apply the insights of narrative theory which is drawn from literary and philosophical hermeneutics to the question of communication in a spatial dimension in the museum. To test the theoretical framework, two museums that are exhibiting similar material in different ways have been identified for comparison - the Duveen Gallery in the British Museum and the recently opened New Acropolis Museum in Athens. By comparison of the 'media' in both museums being used for spatial-storytelling, (i.e. the objects, the interpretive material and the building itself) the design of the museum space as a means of communication will be assessed. This research has a strong practical relevance in terms of the application of theory to examples of practical cases, and also contributes to the refinement of the theoretical models by testing them against the practical cases.

Key Ideas of the Research

According to *Oxford Dictionary of Word Origins*, the term 'museum' originates as the seat of the Muses,² a place dedicated to the goddess of art and sciences. The word also later refers to an institute which was established at Alexandria in about 280 BC by Ptolemy I of Egypt. Hence, the museum has since come to be regarded as a particular type of building, dedicated to the preservation of culturally significant objects, which in some cases includes architectural fragments and even more buildings. The term 'museum architecture' therefore contains at least two levels of meanings; it can either refer to architecture as an artefact displayed inside the museum, or it more commonly refers to the enclosing fabric of the museum building itself. Therefore, the idea of spatial-storytelling adopted in this thesis involves sets of meanings - the shelter of the museum building and the architectural fragments contained within.

Architecture as a Meaningful Medium

With reference to the *Oxford English Dictionary*, one of the definitions of medium being applied in this thesis is a *means* by which something is communicated or

² (in Greek and Roman mythology) each of nine goddesses, the daughters of Zeus and Mnemosyne, who preside over the arts and sciences.

expressed. A medium can also be defined as an *environment* which provides an organism with the materials it needs to survive; for instance, air is the medium for humans to breathe and live, soil is the medium for seeds of plants and flowers to grow, and so on. By employing these natural media, our human ancestors existed and lived from generation to generation, while at the meantime, they began to communicate and interact with the surrounding world by creating diverse media. Constructed and created by humans, architecture is also a medium which embodies various meanings for humans to communicate each other about their understanding of the ‘outside’ world.

Originally created and constructed to provide shelter for safety and protection, architecture has since been divided into different types according to its diverse meanings; for instance, schools have educational significance, cinemas have entertainment significance, monuments and memorials have commemorative significance. Built for the purpose of meeting human needs, architecture is a meaningful medium for human beings to actualise their different levels of needs, physiologically, psychologically and spiritually.

Inasmuch as architecture has a close connection with humans, it is a social product which develops as society evolves rather than as an autonomous sign divorced from its cultural and social context. According to Bourdieu:

Architecture is the practice of ‘framing’ the habitat of everyday life, ... [which] ‘takes place’ within the clusters of rooms, buildings, streets and cities we inhabit. ... As a form of discourse, architecture constructs the representational frameworks, the narratives of ‘place’, in which we live our lives.³

Within all kinds of architecture, there is one type of architecture specifically ‘framing’ the habitat of everyday life of both the past civilisations and the contemporary

³ Dovey, Kim. The Silent Complicity of Architecture, in: Hillier, Jean, and Emma Rooksby, eds. *Habitus: A Sense of Place*, England: Ashgate Publishing Limited, 1995, p. 291.

civilisations, by collecting, displaying, and interpreting natural objects and man-made artefacts which were created by past and contemporary human beings. This particular type of architecture is the museum.

Museum as a Medium

Significant artefacts are collected within museum architecture, not in a narrow sense of a particular building or institution, but ‘as a potent social metaphor and as a means whereby societies represent their relationship to their own history and to that of other cultures’.⁴

In the pre-Enlightenment period, early collections of museums began as the private demonstrations of wealthy individuals or families, which could be regarded as the particular places for the rich to present their wealth to the general public and thus secure their reputations. As the product of the Enlightenment, the first public museums, as ‘displays of artefacts for the edification and entertainment of the public’,⁵ opened in Europe during the eighteenth century. Established in perpetuity, collections of three-dimensional artefacts could promote the knowledge to be beneficial for the general public.⁶ Specialising in artefacts presenting both cultural and natural worlds, museums ‘become central to any educational effort when the focus shifts from the written word to learners’ active participation through interaction with artefacts’.⁷

In the modern age, the museum is not limited to cabinets of curiosities demonstrating personal authorities. It is an artificial memory, a cultural archive which has to be created in the pursuit of ‘historical memories recording by books, pictures, and other historical documents’ for modern human beings to define and better themselves, and to appreciate the value of modern life.⁸ This is achieved by collecting, by creating an archive of artefacts, not only in the practical sense that tangible artefacts ‘would be

⁴ Lumly. *The Museum Time Machine*, p. 2.

⁵ *ibid.*, p. 3.

⁶ Vergo, Peter, ed. *The New Museology*, London: Peaktion Books Ltd, 1989, p. 7.

⁷ Hein, E. George. *Learning in the Museum*, London: Routledge, 1998, p. 6.

⁸ *ibid.*, p. 8.

saved from destruction through time by the technical means of conservation',⁹ but also in the ideal sense that the significance of tangible artefacts would be conveyed by the interpretation and inherited by building up an engaging environment for self-learning of the general public. Therefore, in order to encourage and achieve self-learning in the museum, 'museums must communicate or die'.¹⁰ As a medium for communication and self-learning, what needs to be communicated and learned in the museums?

Artefact as a Medium

We human beings live in a material world. We wear clothes, we eat food. These man-made artefacts, from tiny pieces of jewellery to giant buildings, connect humans together as a society. Artefacts are the media which record humans' lives, to convey meanings and messages. Connecting the generations, artefacts are materialised bodies of products of humans' cognitive activities from the beginning of our origins until the present time. Artefacts are catalysts promoting the progress of civilisations. Endowed with diverse meanings, artefacts are silent but eloquent metaphors to reflect social life; to tell human beings' stories. By being collected in the museums, artefacts are the media connecting the past and the present world. Before being put on display, artefacts are eloquent but silent archaeological remnants. These artefacts are the fundamental media for the museum professionals to communicate with the general public, and to build up the interactive environment for self-learning.

In the museum context, regardless of whether natural objects or man-made artefacts, the distinction between the themes that they are on behalf of - nature and culture - must, like the other dualities with which it belongs, be abandoned.¹¹ The notion of nature, as the isolate island of matter waiting for humans to peel the shell through the process of the application of culture, will no longer serve.¹² The world is not a coin

⁹ *ibid.*, p. 8.

¹⁰ Hooper-Greenhill, Eilean. *Museum and Their Visitors*, London: Routledge, 1994, p. 32.

¹¹ Dudley, H. Sandra. *Museum Materialities: Object, Engagements, Interpretations*, London: Routledge, 2009, p. xvi.

¹² *ibid.*, p. xvi.

with raw material opposed to constructed material goods, but ‘rather a complex continuity of material relationships running from our bodies across the world, which are variously constructed into meanings of different kinds, of which ‘nature’ is one’,¹³ and of which ‘culture’ is another. Therefore, culture is neither a universe in parallel with nature nor something that ambiguously sojourns in our minds. ‘Culture is created continually as we material beings engage with our material surroundings to produce the individual and social habits that add up to ongoing life’.¹⁴ The term ‘artefact’ not only in a narrow sense refers to a thing made by human being, but in a material sense refers to any displayed object in the museums, both natural and cultural.

Inasmuch as artefacts are silent metaphors, their stories are missing and their meanings are vacant. In order to construct the missing stories of the artefacts and confer meanings on artefacts, ‘the curator, the archaeologist, the historian, or the visitor who possesses the cultural competence’ comes to ‘read’ them.¹⁵ After an in-depth understanding of the artefacts is acquired, these people, as the ‘writer’, write the ‘scripts’ for the artefacts. Through the process of ‘reading’, understanding and ‘writing’, the exhibition space forms. The ‘writer’ ‘disappears’ and leaves the artefacts to speak for themselves. Therefore, the general public is absent from the act of ‘writing’; the ‘writer’ is absent from the act of reading, the ‘scripts’ of the artefacts thus produce a double eclipse of the general public and the ‘writer’, and ‘it thereby replaces the relation of the dialogue’.¹⁶ Hence, in the museum context, how is ‘talk’ conveyed?

Storytelling as a Medium

Human beings are natural storytellers for they make sense of the world and of themselves through storytelling.¹⁷ According to Jerome Bruner (1915-), an American

¹³ *ibid.*, p. xvi.

¹⁴ *ibid.*, p. xvi.

¹⁵ Walsh, Kevin. *The Representation of Past: Museums and Heritage in the Post-Modern World*, London: Routledge, 1992, p. 36.

¹⁶ Ricoeur, Paul. *From Text to Action: Essays in Hermeneutics*, II, translated by Kathleen Blamey and John B. Thompson, New York: Continuum International Publishing Group Ltd, 2008, p. 119.

¹⁷ Bedford, Leslie. Storytelling: The Real Work of Museums, *Curator*, Jan 2001, p. 28.

psychologist who has contributed to cognitive psychology and cognitive learning theory in educational psychology, stated in his book *Acts of Meaning*, ‘all narrative is rooted in our ancient heritage of storytelling’.¹⁸ Before we are able to read for ourselves, we listen to fairy tales told by mother before going to bed and wander these places in our dreams. When we grow, we read novels, fiction and drama and imagine that we are the heroes or heroines taking adventures with Harry Potter and his fellow wizards. The development of audiovisual techniques offers great opportunities for film directors to translate master literary works into visual works or to create their own narratives. Human beings have always been immersed in the interests that are produced by storytelling.

According to the definition of medium as a means by which something is communicated or expressed, storytelling is also the medium for humans to communicate with the outside world, and to express ideas. Not only as receivers of verbal-storytelling, which is the original form of storytelling, humans are simultaneously inventors of storytelling by other means; such as writing, painting, filming, sculpturing, constructing or any other act which could be included in cognitive activities.

Inasmuch as storytelling plays such a pervasive role in human beings’ daily lives, in an increasingly competitive public arena, with missions, collections and methods to be revised and evaluated, the key action that the museum should always undertake is storytelling.¹⁹ Currently enjoying a comeback, storytelling has a ‘certain hip post-modern appeal for it supports personal interpretation and multiple perspectives’.²⁰ Within various forms of storytelling, museum architecture adopts the original *verbal* way of storytelling in its interpretative framework. Consisting of audiovisual texts, verbal-storytelling could be regarded as the medium to communicate meanings not only of artefacts but also of architecture to the general public.

¹⁸ Bruner, Jerome. *Acts of Meaning*, Massachusetts: Harvard University Press, 1990, p. 45.

¹⁹ Bedford. Storytelling: The Real Work of Museums, *Curator*, p. 27.

²⁰ *ibid.*, p. 27.

Artefacts, Museum Architecture, and Audiovisual Texts

Based on the above ideas, the medium of museum architecture consists of three elements: artefacts, architecture, and audiovisual texts. Thus, in the museum, if artefacts are the fundamental medium for the museum professionals to communicate meanings with the general public, and the medium of audiovisual texts helps the artefacts to ‘speak’ for themselves, then a series of basic research questions could be proposed:

- What is the significance of the medium of architecture (shelter) of the museum in contributing to communicating the meanings of the artefacts contained within?
- What specific aspects of the architecture of the museum could contribute to communicating the meanings of the artefacts on display?
- How could the medium of audiovisual texts contribute to communicating the meanings of the displayed artefacts contained within the museum, as well as the architecture of the museum itself?
- What are the relationships between architecture, artefact, and audiovisual texts?

With the above key ideas and questions in mind, this thesis will focus on the media of architecture, artefacts and audiovisual texts within museum architecture, and their significance in communicating meanings both individually and collectively.

Methodology of the Research

This study has adopted six qualitative research methods to address the key research questions; there are: literature review, case study, observation, on-site case study, interview and spatial analysis.

1) *Observation* is the fundamental method which actually generates the whole process of the research. According to the researcher’s initial observations on museum architecture,²¹ it appears that many practical museums have adopted storytelling in

²¹ This is based on a survey of 130 museums around the world, see Appendix I .

their daily display routines. In order to identify the underlying methodology of how museums carry out storytelling, the researcher relies on observations of museum space, artefacts and visitors' interactions with both.

2) In order to build up the idea of spatial-storytelling-interpretation, the theoretical model of storytelling-interpretation is built upon a *literature review* of structural linguistics, philosophical hermeneutics in collaboration with cognitive theory and narrative theory.

3) Before carrying out the case study of the museums, the researcher undertook a *case study* of the Parthenon Temple. The result of this study was that - the Ionic Frieze on the Parthenon Temple could be regarded as the spatial-storytelling of a religious event. Based on the idea that the original context of the Ionic Frieze could convey meanings through the architectural space of the Parthenon Temple, the evaluation of the design of two Parthenon Galleries could therefore be carried out.

4) The researcher then carried out *On-site Case Study* with detailed analysis of interpretations in each Gallery and comparisons between the two. Supported by several visits to the Duveen Gallery in the British Museum, London and two visits to the Parthenon Gallery of the New Acropolis Museum in Athens, the process of compiling the case studies helped to build up the complete body of the practice part of this study, which dominates the overall research.

5) Because the researcher's requests to distribute questionnaires in both Parthenon Galleries were refused, the decision was made to employ informal *Interviews* in analysing case studies altogether with personal observations. The researcher was granted informal interviews with several museum staff members in the Duveen Gallery in the British Museum, and also with Ms. Evelyn Vouza archaeologist of the Parthenon Gallery in the New Acropolis Museum.

6) As a student with a background in architecture, the researcher applied the method of architectural analysis during the process of analysing the two cases. As permission was not granted to take photographs in the New Acropolis Museum, the researcher made sketches of interior perspectives in the NAM Parthenon Gallery which effectively contributed to later analysis of the *Spatial Analysis* of the Parthenon Gallery in the New Acropolis Museum. In addition to the sketches, spatial analysis was undertaken based on an analysis of architectural presentations of both Parthenon Galleries which are found from relevant publications such as site plans, floor plans, sections, and others. For the Duveen Gallery in the British Museum, an analysis of architectural presentations is also based on taking on-site pictures in the gallery.

Overall, as a result of the cognitive activity undertaken through the six data collection methods described above, confidence was achieved in the anticipated outcome of the research. For the researcher, analysing practical cases helped her understand architectural design in a backward way which significantly refreshes her design ability in a practical sense. What is more, as a result of the valuable information gained from the informal interviews and discussions with the archaeologists in the New Acropolis Museum, she felt it was vital that museum professionals share their knowledge with practical designers in order to deliver their sophisticated knowledge of artefacts in an effective, spatial, context.

Structure of the Thesis

This thesis is divided into three parts. After the introduction, Part One and Part Two focus on the areas of *theory* and *practice*, with each having three chapters. Part Three presents the overall findings and *conclusion* containing one chapter and the general conclusion.

Chapter One consists of a literature review on structural linguistics, hermeneutics,

narrative theory and cognitive theory.²² Drawn from theoretical ideas, with particular reference to Ricoeur and narrative theory, the idea of storytelling-interpretation, which is the key idea of storytelling as the methodology being applied in the museum architecture for the museum professionals to communicate meanings with the general public, is established.

Chapter Two introduces a general history of storytelling-interpretation in the museum architecture. It also concentrates on analysing the medium of audiovisual texts which is the application of verbal-storytelling in the interpretive framework of the museum and diverse meanings of artefacts as fundamental media in the museum architecture. The last section of Chapter Two introduces the architecture of the museum in order to support and generate the idea of museum architecture as a medium of spatial-storytelling.

Chapter Three introduces and analyses the Parthenon Temple as a specific medium of spatial-storytelling of the Ionic Frieze in terms of four aspects: material, circulation, space layout, and lighting. The selection of the Parthenon Temple results from the 130 museums surveyed, mentioned at the end of Chapter Two. Through the case study of the Parthenon Temple, the idea of museum as spatial-storytelling could be supported by the case study of the Parthenon Temple as a medium of spatial-storytelling of the Ionic Frieze.

Chapter Four analyses the medium of the Duveen Gallery as spatial-storytelling of the Ionic Frieze (Elgin Marbles) in the British Museum in terms of three media - artefact, architecture and audiovisual texts. Adopting the same structure as Chapter Four, Chapter Five also analyses the medium of the NAM Parthenon Gallery as spatial-storytelling of the Ionic Frieze in the New Acropolis Museum in terms of three media - artefact, architecture and audiovisual texts - as well. According to the analysis of the medium of spatial-storytelling in two Parthenon Galleries in two museums,

²² Their relations will be introduced in the introduction of Chapter One, see Chapter One Literature Review, p. 14.

Chapter Six presents the comparison of the media of artefact, architecture and audiovisual texts in two Parthenon Galleries, and the comparison of the contribution of each medium in communicating cultural significance of the Ionic Frieze, both individually and collectively.

Chapter Seven draws specific conclusions on the relevant design principles of museum architecture regarded as a medium of spatial-storytelling by means of artefact, architecture and audiovisual texts.

Part One *Theory*

Chapter One Literature Review

Introduction

This chapter comprises a literature review and is divided into four sections. It provides a critical survey of recent theories of meaning and interpretation, drawn from the fields of linguistics theory and hermeneutics. This material will be important later in the thesis when considering museum architecture as a medium of spatial-storytelling employing various interpretations of its artefacts. The first section of this chapter focuses on structural linguistics, particularly the idea of architecture as a system of signs. In the second section, the researcher conducts a brief review of hermeneutic philosophy, with reference to the seminal work of Paul Ricoeur and Edmund Husserl. In this section the limitations of the semiotic model of interpretation will be considered in relation to the textual interpretation of written documents. Regardless of whether languages are spoken or written, they both are media for human beings to communicate with each other about their experience of the world. In the real life, humans not only use language to interact but also create artefacts to express their ideas. Hence, in the third section, a literature review which is drawn from narrative theory and cognitive psychology further contributes to building up a framework for the analysis of storytelling-interpretation within and through the architecture of the museum, which begins in Chapter Two. The fourth section contains a summary and restatement of the idea of context, based on the theory set out in the previous sections.

1.1 Structural Linguistics

Ferdinand de Saussure (1857-1913), the Swiss linguist whose ideas laid the foundation for many significant developments in linguistics in the twentieth century, introduced the notion of ‘sign’ in his book *Course in General Linguistics* in 1916.

According to Saussure, language is a system of signs that express ideas, and it operates on two levels - *langue and parole*.²³ *Parole* refers to an individual ‘act of speech’, whereas *la Langue* is the pre-existing system of rules and conventions that makes this act possible. Originating in the circuit of phonation and audition - sound-making and sound-hearing, human speech has significances in both a social and an individual sense. Distinguished from an act of speech, the language system is ‘both a social product of the faculty of speech and a collection of necessary conventions that have been adopted by a social body to permit individuals to exercise that faculty’.²⁴ In other words, language is established on the grounds of the standard social conventions of *la langue* and the individual execution of *la parole*. For instance, the action of speaking and the action of writing within a social context cause the language system to evolve into a medium for the expression of ideas. *La langue* and *la parole* are interdependent terms, where the former is both the instrument and the product of the latter.²⁵

The work of Saussure on linguistics contributes significantly to the emergence of Structuralism. Focusing on the way that human experience and behavior were determined by various structures without considering of social context and individual will and choice, the movement of Structuralism rose to prominence in France in its wake in the 1960s. Influenced by Saussure, Roland Barthes (1915-1980), a French literary theorist, philosopher, critic, and semiotician, embarked on how Structuralism could be applied to literature. Published in 1964, the knowledge of ‘language’ was further developed in *Elements of Semiology*, another influential reference in twentieth century linguistics. Written by Barthes, each linguistic sign is classified by ‘the signifier’ and ‘the signified’ instead of ‘langue’ and ‘parole’ in order to explain the relationship between language and human sciences.

²³ Bally, Charles, Albert Sechehaye and Albert Reidlinger, eds. *Ferdinand de Saussure: Course in General Linguistics*, translated from the French by Wade Baskin, London: Peter Owen, 1960, p. 16.

²⁴ *ibid.*, p. 9.

²⁵ *ibid.*, p. 19.

According to Barthes, within the sign, the signified is not the thing itself, but rather the mental representation of the thing. It is the sound-image in humans' minds. The signifier is thus the material representation of the signified. For instance, when a human wants to express a 'tree', the image of the tree or the abstract word of the 'tree' would appear in his mind first, and then he would express it either in speaking 'tri:' or with the word 'tree'. Although, clearly, different cultures have different pronunciations and words to represent 'tree'; however, the fundamental meanings of the tree remains the same regardless of how the material representation varies.

Except for the composition of individual signs, with reference to Saussure, the system of signs could be developed into two planes; the syntagmatic plane and the systematic plane within which the syntagmatic plane is a combination of signs, and the systematic plane is the associated plane. Saussure theorised that the applications of these two planes were explained by Barthes through the use of examples of social systems such as garment system, food system, furniture system and architecture system.

Regarded as a sign by Barthes, the syntagmatic plane of architecture is the whole presentation of each level of the building, such as the ground floor, first floor and so on; the systematic plane then refers to the variations of each single element such as windows, railings, floors and so on.

With regard to the meaning of the sign, there are also two planes in relation to the signified and the signifier which are the plane of expression (E) and the plane of the content (C). Therefore, there are two alternations of signs within different arrangements of the two planes. These two alternations are called denotation and connotation. In the first case, the meaning of a sign is regarded as the denotation plane of the expression plane of another sign. In the second case, the meaning of a sign is regarded as the denotation plane of the content plane of another sign. Taking as an example an architecture column, the functional meaning of column could be regarded as sustaining or decorating. Therefore, regardless of whether a column has a sustaining

purpose or a decorating purpose, they both could be regarded as the denotation plane of the expression plane of the architectural column. If however these columns were made of different materials, such as steel or marble, they could then only be regarded as the denotation plane of the content plane of the architecture column. With reference to Barthes,

the connoted system is a system whose plane of expression is itself constituted by a signifying system: the common cases of connotation will of course consist of complex systems of which language forms the first system (this is, for instance, the case with literature).²⁶

In regard to the example, in the first case, the connoted system refers to the functional meaning of the standing column or the decorating column constituted the signifying system of the architecture column. The second case, for Barthes, is the system of metalanguage 'whose plane of content is itself constituted by a signifying system.'²⁷ Therefore, the system of metalanguage stands for humans' development of the language rather than innovation of the meanings. Regardless of what the material or the style of the column is, the meanings relied on the origin rather than the later development. Hence, regarded as a sign, the meanings of each architectural element are established on the grounds of the first system of connotations, from which each architectural element originated and was endowed with meanings. The development of architecture in later times could only be regarded as the construction of denoted elements.

In the introduction to hermeneutics that follows, the limitations of the semiotic model of interpretation will be considered in relation to textual interpretation. Besides, the idea that architecture can be regarded as a linguistic sign will also be questioned by considering alternative understandings of narrative meaning, while introducing the specific topic of museum architecture.

²⁶ Barthes, Roland. *Elements of Semiology*, translated from the French by Annette Lavers and Colin Smith, New York: Hill & Wang Publisher, 1977, p. 89.

²⁷ *ibid.*, p. 90.

1.2 Philosophical Hermeneutics

1.2.1 The notion of ‘life-world’

Regarded as the father of Phenomenology, Edmund Husserl (1859-1938) introduced the notion of ‘life-world’ in his book *The Crisis of European Sciences and Transcendental Phenomenology*, which laid the primitive foundations of phenomenology. According to Husserl, the ‘life-world’ is the background, horizon and foundation of cognitive activities, within and against which the horizon could be regarded as the framework of interpretation. What Husserl suggests is that humans need to participate in the surrounding world rather than rely completely on the ready-made theoretical world. As Husserl demonstrated, through engaging with the world,

we may be conscious of the world as universal horizon, as coherent universe of existing objects, we, each “I-the-man” and all of us together, belong to the world as living with one another in the world; and the world is our world, valid for our consciousness as existing precisely through this “living together”.²⁸

In his last important essay *The Understanding of Others Persons and Their Manifestations of Life* in 1910, Wilhelm Dilthey (1833-1911), a German historian, psychologist, sociologist and hermeneutic philosopher, also commented that: interpretation involves an indirect or mediate understanding that can only be attained by placing human expressions in their historical context.²⁹

As a student of Husserl, and also influenced by Dilthey, Martin Heidegger (1889-1976), a German philosopher known for his existential and phenomenological explorations of the question of Being, expanded Husserl’s pure phenomenology and re-conceived it as existential phenomenology. Heidegger also developed the

²⁸ Wild, John, ed. *Edmund Husserl: The Crisis of the European Sciences*, translated by David Carr, United States of America: Northwestern University Press, 1970, p. 108.

²⁹ Makkreel, A. Rudolf, and Rodi Frithjof, eds. *Wilhelm Dilthey: Selected Works, Volume III: The Formation of the Historical World in the Human Sciences*, Princeton: Princeton University Press, 2002.

‘life-world’ as ‘being-in-the-world’ in his book *Being and Time*, in which the ‘life-world’ was presented with the insight that human beings exist in the world with an inseparable connection.³⁰

Hans-Georg Gadamer (1900-2002), a German philosopher of the continental tradition, further developed the notion of ‘life-world’ in his major book *Truth and Method* in the 1960s, which was followed by another important collection *Philosophical Hermeneutics* in 1976. As a student of Heidegger, Gadamer was also influenced by Dilthey’s theory, stating that: ‘the ‘life-world’ is in principle an intuitively given world, given, of course, only in the flowing and fluctuating of its streaming horizon’.³¹ The ‘life-world’ is a ‘finite, subjective-relative world with indeterminately open horizons’.³²

Influenced by both Heidegger and Gadamer, Paul Ricoeur (1913-2005), a French philosopher best known for combining phenomenological description with hermeneutic interpretation, also utilised the concept of the ‘life-world’ in his book *Hermeneutics and the Human Sciences* in 1981. According to Ricoeur,

the world is manifested no longer as the totality of manipulable objects but as the horizon of our life and our project, in short as *Lebenswelt* [life-world], as being-in-the-world....Hermeneutics can be defined no longer as an inquiry into the psychological intentions which are hidden beneath the text, but rather as the explication of the being-in-the-world displayed by the text.³³

In other words, rather than simply a backward-looking process of identifying the world ‘behind’ the text, Ricoeur was equally concerned with the world ‘in front of’ the text - in other words, the ways of life made possible by it.

³⁰ Heidegger, Martin. *Being and time*, translated by John Macquarrie and Edward Robinson, New York: Harper & Row, Publishers, Incorporated, 1962.

³¹ Linger, E. David, ed. *Hans-Georg. Gadamer: Philosophical Hermeneutics*, translated by David Linger, Berkeley: University of California Press, 1992, p. 193.

³² *ibid.*, p. 193.

³³ Thompson, B. John, ed. *Paul Ricoeur: Hermeneutics and the Human Sciences: Essays on Language, Action and Interpretation*, translated by John B. Thompson, Cambridge: Cambridge University Press, 1981, p. 112.

1.2.2 Hermeneutics

Hermeneutics as a philosophical tradition ‘concerns the rules required for the interpretation of the written documents of our culture’.³⁴ Hence it focuses particularly on forms and structures of written language. In the period when Dilthey was writing at the end of the eighteenth century, scholars argued over two different approaches to the written documents of the past; these were the methods of ‘explanation’ and ‘interpretation’. According to Dilthey, the method of explanation could be compared with the structure of explanation being applied in the natural sciences, while the technique of interpretation was the method generally being applied in the human sciences. Therefore, in order to distinguish the difference between these two attitudes, Ricoeur introduced the notion of ‘text’ and employed it as the medium to establish the significance of hermeneutics.

Inasmuch as the theory of hermeneutics concerned with the interpretation of written document of our culture, therefore, according to Ricoeur, ‘a text is any discourse fixed by writing’.³⁵ Based on the ideas of Schleiermacher, Dilthey, Heidegger and Gadamer, Ricoeur further suggested that ‘hermeneutics is the theory of the operations of understanding in their relation to the interpretation of texts’.³⁶ Ricoeur firstly introduced and analysed the reasons why text could be considered as a tool in interpretation.

With reference to Ricoeur, any living communication circulating between two interlocutors could be regarded as dialogue. While the interlocutors are exchanging ideas, the dialogue takes place in a circumstantial milieu. Some interlocutors would also add body language to indicate the content of the dialogue which was referred to. Therefore, the living communication of humans has a referential function of the world both in reality or imagined.

³⁴ *ibid.*, p. 197.

³⁵ *ibid.*, p. 145.

³⁶ *ibid.*, p. 43.

Unlike living communication, there are two intentions of using text in regard to living communication. One intention is to take a record of every word uttered in the dialogue. Another intention is to record the meanings of what is said in the dialogue. For Ricoeur, 'a text is really a text only when it is not restricted to transcribing an anterior speech, when instead it inscribes directly in written letters what the discourse means'.³⁷ Therefore, the significance of those written documents of cultures rests in inscribing the meanings of the dialogue or speech that happened in the past other than taking records word by word. In addition, referring back to Saussure, if living speech could be considered as the realisation of the discourse of *la langue* by utterance, and if written documents could also be considered as the realisation of the discourse of *la langue* by writing, then text as any discourse fixed by writing, could be regarded as 'in the same position as speech with respect to language' to replace the position of the written document.³⁸ Moreover, writing preserves the discourse and makes it an archive available for individual and collective memory.

On the grounds of the introduction of the notion of the text, Ricoeur therefore embarked on the analysis of the significance of interpretation and the two attitudes towards natural sciences and human sciences.

Left by the past generation, according to Ricoeur, on various occasions the written documents could be regarded as the posthumous work of the writer. Therefore, compared with the act of dialogue which could be regarded as the living event taking place between questioning, and responses from interlocutors, the act of writing is an independent action. Hence, interpretation encourages the act of the reading of these written documents. There is no direct communication between the acts of writing and reading. 'The reader is absent from the act of writing; the writer is absent from the act of reading'.³⁹

³⁷ *ibid.*, p. 146.

³⁸ *ibid.*, p. 146.

³⁹ *ibid.*, p. 146.

In order to undertake a significant interpretation of texts, Ricoeur introduced the concept of the model of text. Until now, the meaning of the term 'text' has diverged into two meanings. The former one stands for the written documents and any discourse which is fixed by writing, and the latter one stands for the text-interpretation, which is the model of interpretation. The term 'discourse' is also introduced to refer either spoken language or written language which equals to speaking and writing.

In regard to linguistics, the basic unit of language is a sign, and the basic unit of discourse is a sentence. Therefore, for Ricoeur, during the process of interpreting texts (written documents), there are four traits between the sign-interpretation and the text-interpretation:

- Firstly, discourse is always realised temporally and in the present, whereas the language system consisting of signs is virtual and outside of time;
- Secondly, discourse is a complete sentence or combination of sentences which requires indications such as pronouns, verbs and other grammatical forms. However, a system of signs lacks any indications. Therefore, discourse is self-referential.
- Thirdly, any sign could only refer to other signs within the same system. Therefore, the system of signs is an autonomous and independent system which exists completely separately from the outside circumstances. Discourse, on the contrary, always refers to 'a world which it claims to describe, to express, or to represent'.⁴⁰ 'It is in discourse that the symbolic function of language is actualised'.⁴¹ For Saussure, the function of language is to express ideas; nevertheless, the ideas are expressed through discourse rather than a system of signs.
- Fourthly, the system of signs only provides the code for communication. However the discourse not only refers to a world but also those interlocutors within the world to whom it is addressed.

Therefore, in regard to interpreting texts (written documents), sign-interpretation could

⁴⁰ *ibid.*, p. 198.

⁴¹ *ibid.*, p. 198.

only be applied in the structural explanation rather than in the interpretation of meanings. If the above traits distinguish the sign-interpretation and text-interpretation, then how are these four traits realised in the spoken language (speaking) and written language (writing)?

For Ricoeur, *in the first trait*, speaking inscribes the fleeting event; however the writing inscribes not the event of speaking but what is spoken. In other words, the significance of writing is realised in inscribing the meanings of the speaking. *In the second trait*, most of the time, the meaning of the spoken discourse is the same as the intention of the speaker. In regard to the written discourse, 'what the text signifies no longer coincides with what the author meant; henceforth, textual meaning and psychological meaning have different destinies'.⁴² *In the third trait*, in spoken discourse, the world which the speaking refers to is a situation. It is a situation, real or imagined, commonly known by both interlocutors. With strong indications by body language or other references, such situation always surrounds the interlocutors. In regard to written discourse, text (written documents) unfolds a world more than a situation. 'The world is the ensemble of references opened up by the texts, ... as symbolic dimensions of our being-in-the-world'.⁴³ 'Writing, in freeing itself, not only from its author, but from the narrowness of the dialogical situation, reveals this destination of discourse as projecting a world'.⁴⁴ *In the fourth trait*, spoken discourse is always addressed to someone specific; however, written discourse, by its significance in opening up a world to anyone who reads the text, is addressed to any potential audience. Therefore, the act of reading brings the texts (written documents) back to communication which escapes the limitation of being face to face but opens up to universal interlocutors. In other words, the significance of text-interpretation contributes to bring back those 'dead' texts (written documents) to communication.

⁴² *ibid.*, p. 139.

⁴³ *ibid.*, p. 202.

⁴⁴ *ibid.*, p. 202.

1.3 Narrative Theory

1.3.1 Definition of Narrative

In his essay *Introduction to the Structural Analysis of Narratives*, Barthes noted that narrative was a composition of a huge variety of genres which are presented within all substances consisting of the world.⁴⁵ In his book *Acts of Meaning*, Jerome Bruner (1915-), an American psychologist who has contributed to cognitive psychology and cognitive learning theory in educational psychology, stated that ‘all narrative is rooted in our ancient heritage of storytelling’.⁴⁶ Carried by articulated languages, narrative could be shared by humans despite differing cultural backgrounds. Narrative is so pervasive in human beings’ daily lives that it not only makes great contribution to human communication, but also conveys messages of different civilisations. Therefore, if narrative holds such significance in humans’ culture and communication, how does narrative actually happen and what does narrative consist of? In his book *The Cambridge Introduction to Narrative*, H. Porter Abbott, Professor Emeritus in the Department of English at the University of California US, stated that it is ‘the transaction between the mind and the narrative medium that makes narrative happen’.⁴⁷ The mind here stands for the human mind, and the medium thus represents all substances mentioned by Barthes.

According to Abbott, narrative consists of story and discourse, within which the story represents an event or sequence of events, and narrative discourse is how these events are represented. On the grounds of the definition of the narrative, narrative scholars normally hold two different attitudes. Some narrative scholars such as Gerald Prince, Professor of Modern French Literature in Pennsylvania University US, still maintain that narrative ‘is essentially a mode of verbal presentation and involves the linguistic

⁴⁵ Roland, Barthes. *Introduction to the Structural Analysis of Narratives*, in: Sontag, Susan, ed. *A Barthes Reader*, London: Jonathan Cape Ltd, 1982, p. 251.

⁴⁶ Bruner. *Acts of Meaning*, p. 45.

⁴⁷ Abbott, H. Potter. *The Cambridge Introduction to Narrative*, 2nd ed. Cambridge: Cambridge University Press, 2008, p. xv.

recounting or *telling* of events’ - which means narrative needs a narrator.⁴⁸ For many other scholars, a narrator is not always necessary, because a number of instruments could also play the role of the narrator. Therefore, for scholars who hold the opinion that narrative needs a narrator to tell the events, is ‘telling’ the only one action to represent the events in reality? For scholars who hold the opinion that narrative does not need a narrator, then what are the instruments that could play the same role as narrator to ‘tell’ the events?

1.3.2 Representation of Narrative

According to Barthes, ‘narrative is present in myth, legend, fable, tale, novella, epic, history, tragedy, drama, comedy, mime, painting (think of Carpaccio’s *Saint Ursula*), stained-glass windows, cinema, comics, news item, conversation’.⁴⁹ Therefore, the modes of narrative for representing events vary from verbal-storytelling as original storytelling, written-storytelling as novel, and visual-storytelling as paintings or sculptures. The role of narrator could actually be replaced by silent instruments with the intention of representing events. Hence, the definition of narrative could be expanded to a broader sense. The mode of ‘telling’ stories likewise varies.

Regardless of whether the medium of verbal-storytelling, written-storytelling or visual-storytelling, they are all media offering representations of the events, which could be regarded as storytelling. In regard to verbal-storytelling, events are ‘presented’ through the medium of air. In regard to written-storytelling, abstract texts are presented on tangible materials such as papers or fabric within which the texts stand for the recounting of the events. In regards to visual-storytelling, metaphoric icons are presented through tangible materials such as marble within which icons stand for the representations of the events. These media are actually the materials which encompass the real world. Regardless of the significance of each event, storytelling contributes to shape the human’s experience of the event at that moment and

⁴⁸ Prince, Gerald. *A Dictionary of Narratology*, revised ed. United States of America: University of Nebraska Press, 2003, p. 58.

⁴⁹ Sontag. *A Barthes Reader*, p. 251.

afterwards presents the experience via a tangible medium. Through the cognitive activity of storytelling by experiencing events and selection of tangible materials to present events, humans are not spectators of the surrounding world but the participators engaging with the world. For Abbott, 'we do not have any mental record of who we are until narrative is present as a kind of armature, giving shape to that record'.⁵⁰ This might be where the significance of storytelling rests. 'Our very definition as human beings,' as Peter Brooks has written, 'is very much bound up with the stories we tell about our own lives and the world in which we live. We cannot, in our dreams, our daydreams, our ambitious fantasies, avoid the imaginative imposition of form on life'.⁵¹

1.3.3 Storytelling-Interpretation: Medium of Action and Medium of Representation

Storytelling is human beings' interpretation of their engagements with the surrounding world. If the significance of text-interpretation which is introduced by Ricoeur lies in it and encourages the action of reading to interpret the written documents, then the significance of storytelling-interpretation lies in how it encourages human beings' various interactions with the surrounding world.

For Abbott, storytelling consists of events and media of representing events. An event is always mediated by medium of representing events. Regardless of whether the event takes place through verbal-storytelling, written-storytelling or visual-storytelling, they are different media of constructing events. Therefore, an event would be experienced differently in terms of different narrative discourse. If humans could be considered as the potential receivers of any storytelling through listening, reading or viewing or some other acts, they, in the mean time, could also be considered as the powerful constructor of any storytelling by means of speaking, writing, sculpturing and so on. In other words, various representations of events would lead to different meanings;

⁵⁰ Abbott. *The Cambridge Introduction to Narrative*, p. 3.

⁵¹ Brooks, Peter, and Paul Gewirtz, eds. *Law's Stories: Narrative and Rhetoric in the Law*, Yale: Yale University Press, 1998, p. 19.

furthermore, the significance of storytelling lies in the medium of human beings' action as well as the medium of representing events. In other words, storytelling derives both the action and representation.

Therefore, the medium of verbal-storytelling consists of the action of speaking, abstract verbal text and the medium of air which could transmit the sound. The medium of written-storytelling consists of the action of writing, abstract written text, and the media of different materials of representation. Thus, by medium of action and the medium of representation, the surrounding world has been interpreted by means of storytelling to a rich and colourful level.

Take written-storytelling for example; for Ricoeur, 'to interpret is to render near what is far (temporally, geographically, culturally and spiritually)'.⁵² Thus the meanings contained by the written-storytelling inscribing events happened in different times and places are mediated by the process of interpretation. To expand the written-storytelling into all modes of storytelling, if storytelling could be regarded as a significant representation of events, as a result, the medium of action and the medium of representation combines, as Dilthey suggested, 'are not actually means of representing a truth already known, but rather of discovering the previously unknown. Their diversity is not one of sounds and signs, but a diversity of world perspectives'.⁵³ The meanings of events are mediated twice by the action of conducting storytelling and by the medium of representation of storytelling. The world thus opened up by both processes is a 'finite, subjective-relative world with indeterminately open horizons'.⁵⁴ It is the 'life-world' which is cognitively given only 'in the flowing and fluctuating of its streaming horizon'.⁵⁵ Therefore, storytelling, as an interpretation for humans to experience the events, contributes not only in the mediation of events but also in engaging individuals to participate in the activity of interpretation. Through engaging

⁵² Thompson, ed. *Paul Ricoeur: Hermeneutics and the Human Science*, p. 111.

⁵³ Linger, ed. *Hans-Georg. Gadamer: Philosophical Hermeneutics*, p. xxx.

⁵⁴ *ibid.*, p. 193.

⁵⁵ *ibid.*, p. 193.

and interpreting with the outside world, humans, as individual egos ‘living in wakeful world-consciousness’,⁵⁶ claim their existence as being-in-the-world.

1.3.4 Narrative and Time

With reference to Abbott, ‘narrative is the principal way in which our species organises its understanding of time’.⁵⁷ Time, as a philosophical term, contains two levels.

Regardless of the invention of the mechanical timepiece in western civilization or the ancient Chinese observing the shifts of the sun and moon, all these methods have been applied to record the abstract time, which is regular, objective, silent, and forward-moving. Any mode of organising time such as a clock offers humans the chance to locate events in an abstract sense by standard measurements. The occurrence, the conclusion and the length of the events can all be recorded.

Distinguished from the abstract time, the second type of time is ‘human time’.⁵⁸ It is irregular and subjective, taking place over and again. Humans use the manner of storytelling to recount the events that happen during their daily lives in a cognitive sense. If the mechanical measurements mentioned above help humans to locate events in order to make sense of the abstract time, then storytelling, by contrast, ‘turns this process inside out, allowing events themselves to create the order of time’.⁵⁹ Any storytelling could be regarded as the representation of the daily event which could be shortened into an action, and could also be stretched to the whole life. By means of telling the stories, writing the stories and other actions altogether with representations of events, the events could be endowed with many significances by the manner of storytelling. Therefore, the physical time becomes human time to the extent that it is organised after the manner of storytelling; storytelling, in turn, is meaningful to the

⁵⁶ Wild, ed. *Edmund. Husserl: The Crisis of the European Sciences*, p. 108.

⁵⁷ Abbott. *The Cambridge Introduction to Narrative*, p. 3.

⁵⁸ Ricoeur, Paul. *Time and Narrative*. Chicago: University of Chicago Press, 1990, vol. 1.

⁵⁹ Abbott. *The Cambridge Introduction to Narrative*, p. 4.

extent that it portrays the feature of the temporal experience.⁶⁰ Such temporal experience of the event claims its existence by means of storytelling. The ‘human time’ nevertheless, as the growth of every individual, embodies our being in the world.

1.4 The Idea of Context

With reference to the *Oxford Dictionary of Word Origins*, the term ‘context’ refers to ‘the circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood’.⁶¹ Generally speaking, human beings are independent individuals within different societies; however, they are, at the same time, closely connected and influenced by the society within which they have lived. Therefore, in regard to humans’ daily lives, the term ‘context’ could be understood at two different levels - at the social level and at the individual level.

As discussed above, according to Barthes, language consists of a system of signs within which each linguistic sign contains connotation and denotation planes.⁶² For Barthes, the development of the linguistic signs follows the denotation plane rather than the connotation plane for the reason that the meanings contained by each linguistic sign are usually only sustained at their origins, or put more clearly, at the first time of use. Apparently, when Barthes stated the above ideas, he excluded the impact of social and individual contexts on the development of the linguistic signs. In other words, with reference to Barthes, the development of linguistic signs relies completely on the ready-made theoretical world rather than the practical executions by humans.

It is undoubted that within many different languages, some of their linguistics signs have sustained their original meanings from the creation until the present time, such as the words ‘mother’, ‘father’, and so on. Even though there are different representations

⁶⁰ Ricoeur. *Time and Narrative*, p. 3.

⁶¹ Anon. *Oxford Online Dictionary: Context* [online]. Available at: <http://oxforddictionaries.com/definition/context> [26 Jan 2012]

⁶² See 1.1 Structural Linguistics, p. 16.

of these words in different languages - for instance, mother is presented in English as 'mother', in Chinese as '妈妈', in French as 'mère', and in Japanese as 'お母さん' - the meaning of the word still remains, as - a woman who gave birth to a child. Although some linguistic signs sustain their original meanings continuously, within many different languages, there are a number of linguistic signs which have already accumulated more meanings according to different social or cultural contexts during their use. If the above example of 'mother' refers to those linguistic signs which retain their original meanings without considering the impact of the context, then the following example thus supports the idea of the impact of the context on the development of the linguistic signs.

'Dragon', as many people acknowledge, is the name of an animal which specifically refers to 'a mythical monster like a giant reptile'.⁶³ This general meaning of dragon can be probably regarded as the original meaning of the dragon; however, according to different social contexts, the linguistic sign 'dragon' has gradually become endowed with more meanings. For instance, in the Western culture, the image of a dragon symbolises both evil and power; however, in regard to the Eastern culture particularly the Chinese culture, the dragon exactly symbolises fertility which is usually associated with the meanings of success and excellence. From this example, we can see different attitudes towards, or understandings of, the meanings of linguistic signs within different social contexts. In other words, the linguistic signs are not isolated denoted signs that exist separately from the social context for the reason that they are not dead words, but are useful media for humans to communicate, to express and to exchange ideas. So, to reiterate, the meanings of the linguistic signs are affected by the context.

Therefore, the development of the connotation and denotation planes of the linguistics signs actually relies on the impact of the context. Under certain circumstances, the denotation plane develops while the connotation plane remains unchanged; under

⁶³ Anon. *Oxford Online Dictionary: Context* [online]. Available at: <http://oxforddictionaries.com/definition/context> [26 Jan 2012]

other circumstances, the connotation plane develops while the denotation plane remains unchanged. The conclusion is not as absolute as stated by Barthes; that the meanings of the linguistic signs are always sustained from the original time of use, rather than evolving through later development. Hence, regarded as a linguistic sign by Barthes, should the development of architecture be deprived of its social context? The answer is clearly NO. Regardless of linguistic signs or architecture, their meanings are determined by both the social and individual contexts. Here the social context refers to a common understanding on the meanings of linguistic signs in each particular context, and the individual context refers to every human's understanding and execution of the linguistic signs.

In regard to linguistics, the basic unit of language is a sign, and the basic unit of discourse is a sentence. As discussed above, the system of signs is an autonomous and independent one which exists completely separate from the external circumstances.⁶⁴ With reference to Ricoeur, discourse always refers to 'a world which it claims to describe, to express, or to represent'.⁶⁵ Here the world refers to the discourse which contributes to the understanding of the linguistic signs. According to Ricoeur, humans' communication processes take place in the circuit of discourse rather than through separate linguistic signs. In order to contextualise daily events, humans create spoken and written languages. Regardless of the communicative media of these two forms of languages, their significance lies in that they both contribute to transmitting meanings of the events rather than merely collecting and expressing individual linguistic signs. In other words, different ideas are expressed through discourse rather than a system of signs. 'It is in discourse that the symbolic function of language is actualised'.⁶⁶ Examples can be instantiated by Ricoeur when he was introducing the text-interpretation approaching to interpreting the past written documents.⁶⁷

⁶⁴ See 1.2.2 Hermeneutics, p. 22.

⁶⁵ Thompson. *Paul Ricoeur: Hermeneutics and the Human Science*, p. 198.

⁶⁶ *ibid.*, p. 198.

⁶⁷ See 1.2.2 Hermeneutics, p. 22.

For Ricoeur, 'a text is any discourse fixed by writing'.⁶⁸ Based on this idea, the researcher would like to suggest that *a text is the abstract concept of any discourse that can be fixed by human action*. Humans create language to communicate. Whether spoken or written, both forms of language can be regarded as media for communication. For Ricoeur, 'it is in the discourse that the symbolic function of language is actualised'.⁶⁹ Therefore, to further clarify the concept of text mentioned above by the researcher, any discourse fixed by writing is written text, while any discourse fixed by speaking is verbal text. Regardless of whether a text is written or verbal, both forms are products of humans' executions of writing and speaking of linguistic signs. They are constitutions of abstract discourse for the expression of ideas.

According to Ricoeur, when a human speaks, the articulation usually refers to a situation, which is real, or imagined by the interlocutors. Undoubtedly, body language or other references can be added to emphasise the situation that surrounds the speakers. Therefore, it is not difficult to infer that, in fact, spoken text is usually closely associated with the individual context which currently surrounds the interlocutors. Distinguished from the spoken text, written text however addresses any potential audience who comes to read it. Therefore, compared with the spoken text, the significance of any written discourse not only lies in the fact that it indicates the past situation which the text connoted, but also lies in the fact that it encourages humans' action of reading, and invites the potential readers with different social and individual contexts to interpret the written text. In other words, the written text, as the medium, contributes to exchanging ideas and promoting the communications to be carried out across different social contexts, such as different time and cultural backgrounds. In addition, the written text encourages individual humans to engage with the written text which contains meanings from a past particular context, and to interpret the written text in a current context. Through the process of interpretation, humans not only

⁶⁸ Thompson. *Paul Ricoeur: Hermeneutics and the Human Science*, p. 145.

⁶⁹ *ibid.*, p. 198.

express but also facilitate their own individual context.

Hence, based on the understandings derived from various social and individual contexts, the interpretation of the past written documents varies. During the process of interpretation, context plays a significant role in contributing to developing the meanings of the written documents. The significance of text-interpretation not only brings back the 'dead' past written documents into live communication, but also helps to interpret new meanings of these documents in the current context - both social and individual. Through the process of interpretation, by the media of the action of reading and the text-interpretation, the meanings contained by these past written documents are no longer hidden, but are translated into more meanings which could be understood and communicated within the current social and individual contexts.

The action of interpretation brings about communication across different times and places. Demonstrated by Ricoeur, the text-interpretation contributes to the translation of the meanings of written documents for humans from different social and individual contexts in order for them to communicate; however, clearly, the world in which humans live does not merely consist of symbolic systems such as language. In addition to spoken and written language, humans engage with the outside world through other symbolic activities, such as building our environment. Thus, under such circumstances, can the text-interpretation be employed for the interpretation of other symbolic systems? Is text-interpretation the only method to understand and acknowledge the human sciences within different social backgrounds? What are the limitations of text-interpretation?

As stated above, storytelling can be regarded as a specific interpretation of humans' engagements with the surrounding world.⁷⁰ If the significance of text-interpretation relies on the fact that it encourages humans' interaction with the written documents through the action of reading; then, similarly, the significance of

⁷⁰ See 1.3.3 Storytelling-Interpretation: Medium of Action and Medium of Representation, p. 26.

storytelling-interpretation relies on the fact that it not only encourages humans' interaction with the surrounding world through diverse actions, but also generates different representations of the products of these actions. In order to communicate with the world, humans not only create languages but also create artefacts as real communication tools. In other words, symbolic meanings can be conveyed not only by the medium of various texts as an abstract expression of ideas, but also by the artefacts as embodiments of materialised bodies. The differences between text and artefact are discussed in detail in Chapter Two.⁷¹ Hence, when it comes to interpreting artefacts, humans can employ text-interpretation; however, equally, they need to seek for an innovative interpretation which is beyond the text-interpretation. This innovative interpretation is storytelling-interpretation.

In regard to storytelling-interpretation, humans employ text to relate or to write their daily events, and also, humans employ storytelling-interpretation to create artefacts which contain symbolic meanings. Therefore, the limitation of text-interpretation is that it lacks figurative expression which can generate immediate experience of those bodies which could be directly sensed by humans. Compared with the text-interpretation, the significance of storytelling-interpretation relies on the fact that it encourages humans to engage with the surrounding world by means of diverse actions and representations. The meanings of events in humans' daily lives are mediated twice - by the *action* of conducting storytelling and by the medium of *representation* of storytelling. Inasmuch as storytelling-interpretation plays a pervasive role in humans' interaction with the world, storytelling can be considered as the social impact on the individuals; thus, the specific action of conducting events and the ways of representing events can be further regarded as the individual expression and reflection of the surrounding world.

Based on the above description, what is the relationship between social context and individual context? Due to personal interest on the motivation of human actions, Pierre

⁷¹ See 2.2.1 Text and Artefact, p. 52.

Bourdieu (1930-2002), a French sociologist, anthropologist, and philosopher, introduced the notion of 'habitus' in 1990. According to Bourdieu, habitus is defined as

a system of durable, transposable dispositions, structured structures predisposed to function as structuring structure, that is, as principles which generate and organise practices and representations.⁷²

'Habitus is thus a sense of one's (and others') place and role in the world of one's lived environment, which is an embodied, as well as a cognitive, sense of place'.⁷³ Individuals and their societies can never be separated. For Bourdieu, from the perspective of an individual, there are always social principles which generate and organise practices and representations. In regard to storytelling-interpretation, even though different societies possess different principles of generating a storytelling-interpretation, within each society, the common understanding of storytelling would probably be at the same level; for instance, one would neither consider the Harry Potter series of book as a research thesis nor consider the BBC mini drama North and South as a documentary film. Hence, social contexts are the predisposed principles which shape every individual's common understanding of the outside world. It is the common understanding that constitutes the fundamental level of every individual's understanding of their society; for instance, schools can be regarded as the most significant place to pass on these predisposed principles in order to shape the common understanding of one society. So, now the social context has been defined, what then is the individual context?

Joe Painter (1965-), Professor of Geography and Director of the Centre of the Study of Cities and Regions at the University of Durham, developed the notion of 'habitus' as,

the mediating link between objective social structures and individual action and refers to the embodiment in individual actors of systems of social norms,

⁷² Hillier, Jean, and Emma Rooksby, eds. *Habitus: A Sense of Place*, England: Ashgate Publishing Limited, 1995, p. 21.

⁷³ *ibid.*, p. 21.

understandings and patterns of behaviour, which, while not wholly determining actions ... do ensure that individuals are more disposed to act in some ways than others.⁷⁴

Therefore, individual context is actually connected with and influenced by the social context - social norms, understandings and patterns of behaviour. Even though one society's common understanding is facilitated on the base of social structure, individual execution of social principles, however, varies. In other words, individual context is the individual execution of social principles which is not only influenced by the social context but also reflects personal thoughts and understandings of the society in question. If the social context refers to humans as being in the world at the collective level, then the individual context reveals humans as being in the world at an individual level. Habitus, as a medium standing between social structure and individual actions, 'is an open system of dispositions that is constantly subjected to experiences, and therefore constantly affected by them in a way that either reinforces or modifies its structures'.⁷⁵ In other words, if storytelling-interpretation can be regarded as a common method for humans' communication, then the medium of action and the medium of representation of storytelling both lie in the individual's diverse interpretation of the events. Therefore, as discussed above,⁷⁶ storytelling-interpretation exists from the beginning of *telling* the events to written-storytelling, visual-storytelling and spatial-storytelling (examples are instantiated in Chapter Two).⁷⁷

Hence, regardless of whether language or architecture is used to tell a story, neither is an arbitrary linguistic signs but rather a meaningful artefact created by humans with the desire to communicate with the outside world; regardless of whether language or architecture is used to achieve this, both are the products of humans' habitus which continuously require interpretations within both social and individual contexts; and regardless of whether it is language or architecture, their meanings are constantly

⁷⁴ *ibid.*, p. 21.

⁷⁵ *ibid.*, p. 21.

⁷⁶ See 1.3.3 Storytelling-Interpretation: Medium of Action and Medium of Representation, p. 26.

⁷⁷ See 2.4.3 Narrative Meaning, pp. 66-70.

affected by the context. What is more, they are distinguished from language, according to Bourdieu,

Architecture is the practice of ‘framing’ the habitat of everyday life, ... [which] ‘takes place’ within the clusters of rooms, buildings, streets and cities we inhabit. ... As a form of discourse, architecture constructs the representational frameworks, the narratives of ‘place’, in which we live our lives.⁷⁸

In addition to social context and individual context, architecture, as a physical place, offers humans a new layer of context - the spatial context. Regardless of whether they are social or individual contexts, they can both be regarded as abstract ideas or principles which contribute to facilitating humans’ understanding and promoting communication. The spatial context, nevertheless, represents a physical space for humans to meditate, to inhabit and to experience, not in an abstract sense but in a real, embodied way.

Therefore, compared with other types of architecture, museum architecture not only offers humans a physical space with an embodied experience, but also functions as a specific place to carry out storytelling-interpretation in order to interpret and communicate meanings contained by the significant artefacts. With everything displayed together, museum architecture, as a spatial context, generates innovative understanding and interpretation of artefacts, in order to encourage communications, and to facilitate new meanings.

Conclusion

In this chapter, the text not only focuses on literature reviews of structural linguistics, philosophical hermeneutics and the theory of narrative, but also builds up the theoretical model of ‘storytelling-interpretation’ which will be applied in the main body of Chapter Two - storytelling in museum architecture. Moreover, the discussion of the idea of context helps to lay the foundation for the understanding of museum

⁷⁸ Hillier, and Rooksby, eds. *Habitus*, p. 291.

architecture as spatial-storytelling in the following chapters.

In the next chapter, the discussion will focus on the application of the theoretical model of ‘storytelling-interpretation’ as well as the constitution and the significance of the interpretive framework in museum architecture.

Chapter Two Museum the Medium: Storytelling as Methodology Being Applied in Museum Architecture

2.1 Introduction

This chapter is divided into four sections. The first section offers a brief introduction to the evolution of storytelling in museum architecture. The second section is about the medium of artefacts contained in the museum. The third section discusses the medium of interpretation. In this section, the method of *telling*, which is derived from storytelling, has been adopted into the interpretive framework of museum architecture as verbal-storytelling. The medium of verbal-storytelling is audiovisual texts. The content of the fourth section is about the medium of architecture.

The research method applied in the first section is a literature review of storytelling in museums. Based on works by scholars in the museum field, the evolution of storytelling in museums could be analysed from four stages - the reason why storytelling needs to be employed in the museum, the oral usage, the concept and the method. The method applied in the second section is personal observation on artefacts. And the method applied in the third section is a combination of personal observation and application of philosophical ideas on hermeneutics, narrative theory and literature reviews from the field of museum study, particularly in relation to interpretations. The fourth section also adopted personal observation on how the medium of museum architecture is used to communicate meanings.

Therefore, the discussion of this chapter is constructed upon the process of the evolution of storytelling in the museum - reason, oral usage, concept and verbal-storytelling. Through detailed writing on meanings reflected by artefacts, verbal-storytelling alone still could not interpret meaningful artefacts. So it is arguable that the concept of spatial-storytelling could be introduced mainly through the medium

of architecture - circulation, space layout, lighting and material. In order to validate the concept of spatial-storytelling, a survey of 130 museums will be introduced in the conclusion. The selection of the two Parthenon Galleries as the case studies will conclude this chapter.

2.2 Storytelling in Museum Architecture: A Historical Overview

2.2.1 Museum Collecting Artefacts as Self-learning Environment

Collected in the museums, regardless of whether natural objects or artefacts, the distinction between the themes that they represent - nature and culture must, like the other dualities within which it belongs, be abandoned.⁷⁹ The notion of nature, as the isolated island of matter waiting for humans to peel the shell through the process of the application of culture, will no longer serve.⁸⁰ The world is not a coin of raw material as opposed to constructed material goods, but 'rather a complex continuity of material relationships running from our bodies across the world, which are variously constructed into meanings of different kinds, of which 'nature' is one',⁸¹ and of which 'culture' is another one.

Therefore, culture is neither a universe in parallel with nature nor does it ambiguously sojourn in our minds. 'Culture is created continually as we material beings engage with our material surroundings to produce the individual and social habits that add up to ongoing life'.⁸² Thus, the term 'artefact' does not in the narrow sense only refer to a thing made by human beings, but in a material sense refers to any displayed object in the museums. By collecting these significant artefacts within itself, the museum architecture becomes not a particular building or an institution in the narrow sense, but rather 'a potent social metaphor and as a means whereby societies represent their

⁷⁹ Dudley. *Museum Materialities*, p. xvi.

⁸⁰ *ibid.*, p. xvi.

⁸¹ *ibid.*, p. xvi.

⁸² *ibid.*, p. xvi.

relationship to their own history and to that of other cultures’.⁸³

In the pre-Enlightenment period, early collections of museums began as the private demonstrations of wealthy individuals or families which could be regarded as the particular places for the rich to present their wealth to the general public and to preserve their reputations. Displayed in cabinets of curiosities, the content of collections varies from rare or curious objet d’art, to natural objects and man-made artefacts.

As the product of the Enlightenment, the first public museums, as ‘displays of artefacts for the edification and entertainment of the public’, opened in Europe during the eighteenth century.⁸⁴ According to observations by Ren é Huyge (1906 - 1997), a French writer on the history, psychology and philosophy of art, the public museum and printed encyclopaedia appeared at about the same time. For Kenneth Hudson (1916 - 1999), an industrial archaeologist, museologist, broadcaster and author, both the public museum and printed encyclopaedia could be regarded as expressions of the eighteenth-century spirit of enlightenment which produced ‘an enthusiasm for equality of opportunity of learning’.⁸⁵ These movements were both driven by the simple idea that the collections ‘which had hitherto been reserved for the pleasure and instruction of a few people should be made accessible to everybody’.⁸⁶ Established in perpetuity, collections of three-dimensional artefacts could promote the knowledge to be beneficial for the general public.⁸⁷

Following the major expansion of the museum into a significant public institution in the late nineteenth and early twentieth century, a period of intense museum building, in both an intellectual and physical sense, was realised. According to George E. Hein, Professor at Lesley College Cambridge US, the development of public museums in the

⁸³ Lumly. *The Museum Time Machine*, p. 2.

⁸⁴ *ibid.*, p. 3.

⁸⁵ Hein. *Learning in the Museum*, p. 3.

⁸⁶ Hudson, Kenneth. *A Social History of Museums: What the Visitors Thought*, London: Macmillan, p. 6.

⁸⁷ Vergo, Peter, ed. *The New Museology*, London: Peaktion Books Ltd, 1989, p. 7.

nineteenth century can be divided into two stages.

In the early stages of the nineteenth century, focusing on displays of ‘imperial conquests, exotic material and treasures brought back to Europe by colonial administrations and private travellers or unearthed by increasingly popular excavations’,⁸⁸ collections only opened to those who were ‘fortunate enough to be allowed to enter and observe the splendo[u]r of a nation’s wealth’.⁸⁹ In the latter stages of the nineteenth century, in order to help the general public to ‘better themselves and appreciate the value of modern life’, public museums were viewed as one of the several institutions that could offer education for the general public.⁹⁰ Different from the schools where the general public receives formal education, museum architecture was understood to be ‘the advanced school of self-instruction’ which offers opportunities for the general public to conduct self-directed and selective learning.⁹¹ However, this ideal was difficult to be achieved due to the divergence of the overall educational role of schools and museums during that particular period in history. Besides, a new generation of curators was more interested in the accumulation of collections rather than in the public use of museums.⁹²

Although the educational role of museum architecture is venerable, in the last three decades, the educational role of museum architecture became worthy of note, because ‘the very nature of education in the sense of what we mean by the term and what we expect of educational institutions has changed’.⁹³ Learning is not - in the traditional sense - to be achieved by means of written words but should be ‘viewed as an active participation of the learner with the environment’.⁹⁴ Specialising in artefacts presenting both cultural and natural worlds, museums ‘become central to any educational effort when the focus shifts from the written word to learners’ active

⁸⁸ Hein. *Learning in the Museum*, p. 3.

⁸⁹ *ibid.*, p. 4.

⁹⁰ *ibid.*, p. 4.

⁹¹ *ibid.*, p. 5.

⁹² *ibid.*, p. 5.

⁹³ *ibid.*, p. 6.

⁹⁴ *ibid.*, p. 6.

participation through interaction with artefacts’.⁹⁵

During the time that the educational function of museums developed, another role of museum architecture was also emerging; as ‘interpreters of cultures’ being brought to the foreground in museums.⁹⁶ The role of museums in interpreting cultures has attracted the attention of social theorists such as Sharon Macdonald and Gordon Fyfe. In the view of these two scholars, museums as social and cultural sites produce the interests such as ‘the stories museums tell, the technologies museums employ to tell stories and the relation these stories have to those of other sites’.⁹⁷ Therefore, the recognition of the combined educative and interpretive roles of museums evidences the social function of museum architecture in the contemporary world. What is learned in the museum and how learning takes place by interpreting cultures in the museum is much more significant than a matter of intellectual curiosity.⁹⁸

In the modern age, in addition to its original function as ‘cabinets of curiosities’ demonstrating personal collections, the accepted meaning of museum architecture can be regarded as an ‘artificial memory, a cultural archive’ which has to be created in the pursuit of ‘historical memories recording by books, pictures, and other historical documents’ for modern humans to define and better themselves, and to appreciate the value of modern life.⁹⁹ By collecting and by creating an archive of artefacts, this would ensure, not only in the practical sense, that tangible artefacts ‘would be saved from destruction through time by the technical means of conservation’, but also in the ideal sense that the significance of tangible artefacts would be conveyed by the interpretation and inherited by building up an engaging environment for self-learning.¹⁰⁰

⁹⁵ *ibid.*, p. 6.

⁹⁶ *ibid.*, p. 9.

⁹⁷ Macdonald, Sharon, Gordon Fyfe, eds. *Theorizing museums*, Oxford: Blackwell Publishers, 1996, p. 3.

⁹⁸ Hein. *Learning in the Museum*, p. 12.

⁹⁹ *ibid.*, p. 8.

¹⁰⁰ *ibid.*, p. 8.

The functional shift of museum architecture from storehouse to common place for communication likewise resulted in a functional shift of museum curators. The museum curator, in the primitive sense, is the collector of the valued artefacts and the organiser of collections. In addition to the roles of collector and organiser, they now possess one more role; that of ‘writers’.

Before being put on display, artefacts are eloquent but silent archaeological remnants. Being created in different times and places in different social contexts, significant artefacts are symbolic metaphors to reflect past social lives. Being collected in the museum, these artefacts are the fundamental medium for the museum professions to build up the interactive self-learning environment, and to communicate with, and convey meanings to, the general public. In many circumstances, artefacts are removed from their original contexts and displayed in a new context. Hence, due to the fact that artefacts cannot speak for themselves, events contained by them are ‘missing’ and their meanings are hidden.

In order to construct the missing events contained by the artefacts and confer meanings on artefacts, ‘the curator, the archaeologist, the historian, or the visitor who possesses the cultural competence’ comes to ‘read’ them.¹⁰¹ Inasmuch as each one of these people has different personal understandings of the artefacts, ‘reading’ of artefacts therefore varies; ‘where differences between readings become fraught with significance is in the area of interpretation’.¹⁰² After an in-depth understanding of the artefacts, these people, as the ‘writers’, write the ‘scripts’ for the artefacts. Through the process of reading, understanding and writing, the exhibition space forms. The ‘writer’ ‘disappears’ and leaves the artefacts to speak for themselves. Therefore, the general public is absent from the act of ‘writing’; the ‘writer’ is absent from the act of reading, the ‘scripts’ of the artefacts thus produces a double eclipse of the general public and

¹⁰¹ Walsh. *The Representation of the Past*, p. 36.

¹⁰² Abbott. *The Cambridge Introduction to Narrative*, p. 22.

the ‘writer’, and ‘it thereby replaces the relation of the dialogue’.¹⁰³ In the museum environment, what stories are the curators telling us?

2.2.2 Storytelling as an Abstract Oral Usage

According to Bruner, ‘all narrative is rooted in our ancient heritage of storytelling’.¹⁰⁴ Without much tangible medium left, some heritage sites at some level still rely on telling events that happened in the past by using an oral mode to communicate with their visitors. Nowadays, since narrative originated from verbal-storytelling, museum architecture has inherited this custom of telling stories to carry activities.

Deborah Mulhearn, a freelance journalist, reported that ‘oral history has come a long way in museums’.¹⁰⁵ She described oral history as treasured links with the past and as a prominent ways of ‘recording lives and unexpected events that may otherwise have been lost’.¹⁰⁶ She also suggested that oral history, as intangible material, could help the museum artefacts, as tangible materials, to convey basic messages such as ‘where it came from or what it was used for’.¹⁰⁷ The museum case that she selected to support this idea was the Lightbox Museum and Gallery in Woking in the UK. This came into being in the middle of the nineteenth century with the advent of the railway and half of Woking’s history is within living memory. For Davis Rob, the oral history coordinator at the museum, ‘oral history reflects the fabric of people’s lives’.¹⁰⁸ Therefore, in order to integrate with the permanent display of the town’s history in the museum, volunteers are called for to interview people for the sake of collecting events based on different themes relating to the history of the town. For those who were interviewed, oral history allows them to retell the stories as they experienced them.

Leslie Bedford, a member of The Museum Group and the principal of Leslie Bedford

¹⁰³ Ricoeur. *From Text to Action*, p. 119.

¹⁰⁴ Bruner. *Acts of Meaning*, p. 45.

¹⁰⁵ Mulhearn, Deborah. Telling tales: On the sidelines for years, oral history has found its ways to the core of contemporary exhibition planning, *Museums Journal*, Jul 2008, p. 29.

¹⁰⁶ *ibid.*, p. 29.

¹⁰⁷ *ibid.*, p. 29.

¹⁰⁸ *ibid.*, p. 31.

Associates New York, reported her comments on storytelling in the museum. Since oral storytelling has occupied the longest history of storytelling, based on the example given by Bedford, the significance of oral storytelling could further be understood. According to Bedford, many museums and historic sites rely on employing professional people telling stories about a world that no longer exists to the visitors. For instance, at the Gettysburg National Military Park, US, visitors may hire a professional guide or listen to an actress costumed as a 1860s Gettysburg farm wife talking about the experience of carnage, which she and her neighbours discovered along the way while returning home. For Bedford, art museums in particular adopt storytelling to help all age groups to communicate with the collections. The Art Institute of Chicago, for example, hosts parents' workshops to teach them how to 'read' art as a visual story, and then takes them into the galleries to practice and refine the technique.

In addition to the above examples, Bedford selected other examples of storytelling through the general public's interaction in an abstract verbal usage. Called 'Choosing to Participate', one of the examples was an exhibition which consists of stories about individuals and communities that a museum decides whether or not to support outside their mediate 'universe of obligation'.¹⁰⁹ One of the most complex participations involved the integration with Little Rock's Central High School, US in 1957 of nine African-American teenagers. Targeting adolescent audiences, the story presented by nine African-American teenagers was from the perspective of a fifteen-year-old girl facing her first day at school, which requires these young audiences to 'imaging themselves in the girl's shoes and to empathise with the terrifying experience of encountering the angry mob gathered in front of the school'.¹¹⁰ The exhibition also includes a 'talk-back' area which invites audiences to leave their own stories. Afterwards, the exhibition would be evaluated through questionnaires sent to students who left their own stories and expressed their opinion on supporting people outside

¹⁰⁹ *ibid.*, p. 31.

¹¹⁰ *ibid.*, p. 31.

their immediate universe of obligation. Both qualitative methods support the success of these exhibitions in encouraging visitors to reflect ‘deeply on the meaning of the exhibition’s main message that ‘my choice makes a difference’.¹¹¹

‘Storyliving’, according to Bedford, refers to sending storytellers and musicians to schools where they use techniques of drama to tell stories. Originated in England, the Detroit Historical Museum successfully transformed ‘storyliving’ into an outreach programme for schools called ‘Detroit Storyliving’. Grounding their stories in historic sites in Michigan, students were led by artists and teachers through a journey created by artists in the Underground. Starting with role playing, a group of abolitionists meet to determine who will go forward south to restart the movement, and students ‘recreate life on a plantation and then the journey to freedom’.¹¹²

Regardless of collecting oral history of local life or employ other methods to tell the events in the above cases, the medium of conducting storytelling are all abstract verbal texts. Being applied in the museum as its original form of verbal text, storytelling contributes to encourage the general public to engage with the events with different social or individual backgrounds in the current situation and to establish connections between different contexts. In other words, the original oral usage of *telling* events offers visitors the opportunities to connect their experience of adventures or events to the museum environment, ‘which distinguishes programs from story hours at the local library for instance’.¹¹³

2.2.3 Storytelling as a Physical Context

In addition to the oral usage of storytelling to carry our activities in the museum, storytelling has also been applied in the museum as a physical context. One of the examples selected by Bedford is an exhibition strategy called ‘Object theatre’

¹¹¹ *ibid.*, p. 31.

¹¹² *ibid.*, p. 32.

¹¹³ Bedford. *Storytelling: The Real Work of Museums*, *Curator*, p. 32.

developed in the 1980s. By creating a multimedia and multi-sensory context with computer technologies, 'Object theatres' are designed to 'bring objects to life without necessitating a hands-on experience' in the museums.¹¹⁴

The successful case of Object theatre was pioneered in the 1980s by Taizo Miyake at Canada's Science North. With visitors sitting in a darkened room, the night sky would slowly appear above their heads and a child's tremulous voice began to sing 'Twinkle, Twinkle Little Star.' With tell stories through this simple and magical style, Object theatres were developed at the Minnesota Historical Society, the Children's Museum in Boston, the Connecticut Historical Society, and elsewhere.

Another case of a successful Object theatre experience was an exhibition at the Minnesota Historical Society, US. Compared with the above one without any hands-on experience, this exhibition offers visitors a context with more physical elements. Called 'Everything must change,' the physical set consists of a piano with various framed family photographs, a suitcase with a man's coat folded on top, and a kitchen table with a birthday cake. Beginning with a home movie of a toddler blowing out his birthday candles and ending with an elderly man doing the same, visitors hear short narratives of authentic persons in between the whole story, indicating the moments of loss and change in the human cycle of life. As each person speaks their story, the appropriate photographs or other artefacts are lit up. Framed by a song 'Everything Must Change,' the exhibition actually generated universal experiences 'resonated deeply and emotionally with visitors'.¹¹⁵ Compared with the Object theatre that uses pure technologies to create a sensory context, the experience of a combination of physical and technologies offer a more engaging environment, and establishes deeper connections between 'museum artefacts and visitors' lives and memories'.¹¹⁶

Regardless of Object theatre created by pure technologies or physical elements, they

¹¹⁴ *ibid.*, p. 29.

¹¹⁵ *ibid.*, p. 30.

¹¹⁶ *ibid.*, p. 30.

both offer the general public a physical space to sense and to experience the events. Therefore, the application of storytelling is not restricted to its original usage of telling events by verbal text, but develops into spatial representation of events. With every element setting together, the spatial context represents a physical space for humans to meditate and to experience, not in an abstract verbal sense but in a real and embodied way.

In addition to the above cases, according to Bedford, historic museums also adopt storytelling in the exhibition strategy in order to ‘give voice to people and communities previously left out of the historical record’.¹¹⁷ One of the relevant examples given by Bedford was a contemporary exhibition established in the mid 1990s in Newark Museum, US. Designed to be different from the traditional style of historic house museum that displays objects with labels, the new exhibition was to populate the exhibition rooms ‘with engaging casts of mostly fictional, but historically credible characters’.¹¹⁸ With book-shaped text labels, illustrated figures and a conversation presented in a storybook in the reception room, the previously traditional exhibition was transformed into a lively and vivid story to be told and to be experienced.

Drawn from the practical museum cases, the above examples are the applications of storytelling through the exhibition scaled either temporarily or permanently. Storytelling is transformed from its original verbal usage into spatial usage, which not merely promotes communications in a verbal sense, but reconstructs an architectural space to generate experience. Through participating in the activity of storytelling, the general public is invited to ‘imagine another time and place, to find the universal in the particular, and to feel empathy for others’.¹¹⁹ Since storytelling could be carried out in terms of activities altogether with various themes of the exhibition, in regard to the scale of the exhibition, a further question could be raised: how does storytelling, as a

¹¹⁷ *ibid.*, p. 31.

¹¹⁸ *ibid.*, p. 31.

¹¹⁹ *ibid.*, p. 33.

practical method to connect individual artefacts from different time and places, communicate with the general public both individually and collectively?

2.2.4 Storytelling as a Method

For Abbott H. Potter, human beings do not have ‘any mental record of who we are until narrative is present as a kind of armature, giving shape to that record’.¹²⁰ Collected together, artefacts, to a certain extent, are disconnected fragments left by the past. Containing human events from different time and places, they are not only archaeological fragments shaping the collections but also metaphors helping museums create retrieval systems of memories, of cultures, of civilizations.¹²¹ With fragments which were put together to become collections and to shape the museum space, ‘it is in the museum and its sibling, the exhibition, that these new pasts are made visible in the form of reconstructions based on their artefactual or osteological remains’.¹²² By means of ‘the techniques of backward construction,’ these new pasts are organised into a ‘narrative machinery’ in the museum, through which ‘they are linked together in sequence leading from the beginning of time to the present’.¹²³

With reference to the general messages contained by the artefacts similarly or differently, early collections in public museums are usually classified geographically or chronologically. Considering as a context of viewing collections ‘simultaneously bodily and mentally’, storytelling is generally considered as a linear spatial arrangement in the form of routes that the visitor ‘was expected - and often obliged - to complete’.¹²⁴

For Tony Bennett, a Professor of Cultural Studies and Foundation Director of the Institute for Cultural Policy Studies in the Faculty of Humanities at Griffith University, Australia, the museum architecture was regarded as the specific cultural institution

¹²⁰ Abbott. *The Cambridge Introduction to Narrative*. p. 3.

¹²¹ Mulhearn. Telling tales, *Museums Journal*, p. 31.

¹²² Bennett, Tony. *The Birth of the Museum: history, theory, politics*, Oxon: Routledge, 1995, p. 178.

¹²³ *ibid.*, p. 178.

¹²⁴ *ibid.*, p. 179.

which requires a 'distinctive architecture of its own' in the late eighteenth century.¹²⁵

For Bennett,

In fact, the museum, rather than annihilating time, compresses it so as make it both visible and performable. The museum, as 'backteller', was characterised by its capacity to bring together, within the same space, a number of different times and to arrange them in the form of a path whose direction might be traversed in the course of an afternoon. The museum visit thus functioned and was experienced as a form of organised walking through evolutionary time.¹²⁶

Andrea Witcomb, an Associate Professor of Faculty of Arts and Education at Deakin University, Australia, develops the idea of linear narrative through her case study of the Australian National Maritime Museum. According to Witcomb, in many museums, the spatial arrangement of collections by means of linear narrative comprises three levels.

The first level is spatial level, in which the linear narrative is designed as 'a one way flow, with exhibits lining either side of the rectangular space and a tunnel through which visitors must pass'.¹²⁷ The second level is the collections of artefacts, which artefacts are usually set within another single linear narrative 'such as an evolutionary chronology from primitive to modern'.¹²⁸ The third level is the artefacts in the individual cases that they are 'organised in a linear fashion, replicating the master narrative in the way they are classified, labelled and displayed'.¹²⁹

These three levels of spatial arrangements altogether reflect and produce a strong linear narrative 'which is authoritative and positions itself as the source of knowledge'.¹³⁰ For Witcomb, through such strong linear narrative, various meanings of artefacts are reduced to only one point of view; either that of the curator or that of

¹²⁵ *ibid.*, p. 181.

¹²⁶ *ibid.*, p. 186.

¹²⁷ Witcomb, Andrea. Postmodern Space and the Museum - the Displacement of 'Public' Narratives, *Social Semiotic*, 1994, vol.4, no.1-2, p. 240.

¹²⁸ *ibid.*, p. 240.

¹²⁹ *ibid.*, p. 240.

¹³⁰ *ibid.*, p. 240.

the institution. Visitors are ‘thus unambiguously placed as a receiver of knowledge, as the end-point of the production of the process’.¹³¹ Therefore, the issue of authorised linear narrative as a general phenomenon drawn from the museums leads Witcomb to introduce the case study.

In the grounds of the Exhibition Design Service in 1986 in the Australian National Maritime Museum, it was claimed that ‘large ideas and large artefacts will be reduced to a personal scale so that the visitor will more readily be able to relate to exhibition’.¹³² The Australian National Maritime Museum signalled its interests in breaking down the large linear narrative structure to a more personal level, at which the visitors could establish closer connection with the display.

For Witcomb, artefacts contain messages which could be divided into different levels of meanings. General meanings usually differ from specific meanings. In many cases there was no necessity to establish a link between the general meanings and the specific meanings. With everything arranged around individual artefact, ‘displays could stand on their own and have no necessary connection on either side of them’.¹³³ Therefore, each individual artefact acquires its spatial position according to the meanings that each of them is endowed with. As a result, the traditional linear narrative between displays, which was achieved either thematically, chronologically or by artefact type, was shifted both from the spatial level to an artefact level, and from the general level to the individual level. This phenomenon requires the museum professionals to rethink the significance of artefacts and to re-establish interactive connections between artefacts and visitors.

To summarise, the evolution of storytelling in museum architecture has undergone four stages - the reason, the oral usage, the spatial context, and the method. When storytelling was applied as a method in public museums, it transformed from the linear

¹³¹ *ibid.*, p. 240.

¹³² *ibid.*, p. 240.

¹³³ *ibid.*, p. 244.

narrative of spatial arrangements of collections to the increasing intentions on display of individual artefacts. This shift of storytelling is significant in two ways. On one hand, the communicative role of museum architecture becomes more and more important as society moves forward. On the other hand, the fact of storytelling as a method shifting from the spatial level to the artefact level is actually a result of the former significance. Therefore, how is the methodology of storytelling being applied to reflect significance of individual artefact and to establish connections with the general public, and what does the methodology consist of? These questions are addressed below, in the following section.

2.3 Medium - Audiovisual Texts

In the museum context, the medium for artefacts to convey meanings is the interpretive framework. Even though artefacts embody various meanings, they are tacit. With reference to Eilean Hooper-Greenhill, professor of the Department of Museum Studies, University of Leicester, UK, ‘it is not possible to grasp or apprehend these material elements outside an interpretive framework’.¹³⁴ Artefacts do not possess abilities like human beings to ‘speak’ or to ‘act’ in order to communicate. Therefore, artefacts ‘need interpretation in order that the public may fully understand their significance’.¹³⁵ It is the interpretative framework in the museums that helps artefacts to ‘speak’ to convey meanings. Subsequently, how is this interpretive framework applied in the museum context?

2.3.1 Text and Artefact

Even though much has been written in the literature about interpreting text, ‘the interpretation of artefacts differs from the interpretation of texts’.¹³⁶ In his book *Hermeneutics and the Human Sciences*, Ricoeur stated that ‘a text is any discourse

¹³⁴ Hooper-Greenhill, Eilean. *Museums and the Interpretation of Visual Culture*, London: Routledge, 2000, p. 103.

¹³⁵ Helen, Coxall. How language means: an alternative view of museums text, in Kavanagh, Gaynor, ed. *Museum Languages: Objects and Texts*, Leicester: Leicester University Press, 1991, p. 92.

¹³⁶ Hooper-Greenhill. *Museums and the Interpretation of Visual Culture*, p. 103.

fixed by writing'.¹³⁷ Based on this idea, as stated in Chapter One, the researcher would like to suggest that *text is the abstract concept of any discourse that can be fixed by human action*.¹³⁸ To further clarify this, any discourse fixed by writing is written text; while any discourse fixed by speaking is verbal text. Regardless of whether text is written or verbal, both forms are products of humans' executions of writing and speaking of linguistic signs. They are constitutions of abstract discourse for expressing ideas. Compared with the written text or verbal text, artefacts are not the same as them in two aspects.

Firstly, artefacts have material elements.¹³⁹ 'They may, for example, be made of wood, and be of a certain height or colour'.¹⁴⁰ Artefacts are materialised three dimensional bodies. They are materialised volumes which occupy physical spaces. It is certainly not possible to grasp or apprehend these materialised volumes outside an interpretive framework. In regard to text, its meanings can be grasped as long as the text is read for the reason that both spoken and written languages are direct expressions of ideas; however, artefacts are figurative bodies which can lead to different apprehensions. 'Artefacts are sites at which discursive formation intersects with material properties'.¹⁴¹

Therefore, understanding artefacts is not the same as reading text. When text is produced, it only generates two levels of meanings - the textual meaning of the text itself and the psychological meaning. The psychological meaning here refers to the intention of the person who speaks or writes. For Ricoeur, text has meanings. The only difference between verbal text and written text depends upon the fact that in many cases, the textual meaning and the psychological meaning of the verbal text could coincide with each other; however, the textual meaning and the psychological meaning

¹³⁷ Ricoeur. *Hermeneutics and the Human Sciences*, p. 145.

¹³⁸ See 1.4 The Idea of Context, p. 31.

¹³⁹ Hooper-Greenhill. *Museums and the Interpretation of Visual Culture*, p. 103.

¹⁴⁰ *ibid.*, p. 103.

¹⁴¹ *ibid.*, p. 103.

of the written text have different destinies.¹⁴²

In regard to artefacts, in the same way that a figurative body has its functional meaning in finitude, connotations of their metaphorical and narrative meanings grow along with human beings' executions. Therefore, 'the categories of meaning are less clear with artefacts than with texts'.¹⁴³ Even though it is arguable that text also contains material character (for instance, a diary could be regarded as the written text), 'the material form rarely comprises part of the meaning of the text'.¹⁴⁴ In other words, texts are abstract discourses presented through tangible medium such as papers or fabric, and so on and so forth. Regardless of what ideas or meanings a particular text could be endowed with, textual meaning in fact is located within the words themselves.¹⁴⁵ It does not relate to the body or the senses, it only relate to the realm of ideas.¹⁴⁶

Secondly, 'encounter with artefacts is not the same as encounter with ideas'.¹⁴⁷ Ideas, concepts or words are abstract, non-material linguistics signs. In order to understand them, 'verbal and linguistics skills are required'.¹⁴⁸ Placed within intellectual frameworks of intelligibility and comprehension, cognitive processes are necessary before ideas 'make sense'.¹⁴⁹ However, the interaction between the artefact and the general public 'is more than a cognitive one'.¹⁵⁰ Bridged by an interpretive framework, 'the material properties and physical presence of the artefact demand embodied responses, which may be intuitive and immediate'.¹⁵¹ Even though the general public's response to artefacts might be based on their previous knowledge and experience which have been culturally shaped, their initial reaction to an artefact 'may

¹⁴² See 1.2.2 Hermeneutics, p. 23.

¹⁴³ Hooper-Greenhill. *Museums and the Interpretation of Visual Culture*, p. 114.

¹⁴⁴ *ibid.*, p. 114.

¹⁴⁵ *ibid.*, p. 114.

¹⁴⁶ *ibid.*, p. 114.

¹⁴⁷ *ibid.*, p. 112.

¹⁴⁸ *ibid.*, p. 112.

¹⁴⁹ *ibid.*, p. 112.

¹⁵⁰ *ibid.*, p. 112.

¹⁵¹ *ibid.*, p. 112.

be at a tacit and sensory rather than an articulated verbal level'.¹⁵² In other words, interpreting artefacts not only relies on linguistic applications which could be applied in interpreting texts, but also involves productions of sensory and embodied engagements.

2.3.2 Methodology of Storytelling in Museum - Shift from Written-Text-Interpretation to Verbal-Storytelling

Even though artefacts are unable to 'act' like text which 'holds' readable ideas, and even though interpreting artefacts is different from interpreting text, in order to communicate with the general public, text-interpretation is undoubtedly needed.

For Ricoeur, the significance of text-interpretation lies in where it invites a subject to read it.¹⁵³ Of course here 'subject' refers to a human. Differing from linguistic signs, which exist independently and arbitrarily, it is the act of reading that validates the meaning of the written text as a 'meaningful oriented behaviour'.¹⁵⁴ Hence, in the museum context, the function of label or written-text-interpretation also lies in involving the act of reading from the general public in the process of understanding the artefacts. This phenomenon could be observed from many early museum collections where labels occupy a prominent position of interpreting artefacts, such as a label with a printed sentence to provide the background information on the artefact, etc. On this level, artefacts could be 'read'. However, if artefacts are encountered initially through the senses and the body, then, could they be understood only at the level of reading? The answer is obviously NO.

For Hooper-Greenhill, 'objects can also be read, spoken, and written about, encountered through verbal knowledge which is the textual knowledge - knowledge through the written, spoken or heard text'.¹⁵⁵ Therefore, the function of the

¹⁵² *ibid.*, p. 112.

¹⁵³ See 1.2.2 Hermeneutics, p. 23.

¹⁵⁴ Ricoeur. *Hermeneutics and the Human Sciences*, p. 203.

¹⁵⁵ *ibid.*, p. 116.

interpretive framework in the museum is elevated from the level of written-text-interpretation to verbal-text-interpretation. Artefacts could be understood not only through the act of ‘reading’ but also the act of ‘listening’. Verbal-text-interpretation enables ‘an examination and evaluation of what is known, facilitates comparison with the ideas of others, and enables sharing and discussion’.¹⁵⁶ This might be where the significance of storytelling in the museums rests. For Saussure, ‘people forget that they learn to speak before they learn to write, and the natural sequence is reversed’.¹⁵⁷ For Bruner, all narrative is rooted in our ancient heritage of storytelling. Humans interpret their life within the world by *telling* the events originally. In other words, storytelling, or to put it another way, verbal-storytelling is one typical style of verbal-text-interpretation of human speech, which is intuitively inherited and employed by humans throughout their long history. Compared with other styles of verbal-text-interpretation of human speech such as verbal text with declarative intention or verbal text with discursive intention, verbal-storytelling is the verbal text with communicative intention. It engages dialogue between the person who tells and the person who listens in the interplay of questions and answers. It encourages multiple discussions other than authoritative ‘reading’. Being applied in the museum context, storytelling contributes to facilitate the museums as ‘an environment where visitors of all ages and backgrounds are encouraged to create their own meanings and find the place, the intersection between the familiar and the unknown, where genuine learning occurs’.¹⁵⁸ Thus, verbal-storytelling has since ‘domiciled’ itself in the interpretive framework of museums.

2.3.3 Medium of Verbal-Storytelling - Audiovisual Texts

Since storytelling is applied in the verbal-text-interpretation in the museums, what is the medium of verbal-storytelling-interpretation? In addition to the traditional labels,

¹⁵⁶ *ibid.*, p. 116.

¹⁵⁷ Saussure. *Course in General Linguistics*, p. 25.

¹⁵⁸ Bedford. *Storytelling: The real Work of Museums*, *Curator*, p. 33.

‘interactive devices have an active and important role to play in the communicative process’.¹⁵⁹ The development of technology offers massive opportunities to the museums. A great deal of audiovisual materials has been widely applied in the verbal-storytelling of the museums. Comprising of ‘a set of tools and technologies which can be used to create new applications or perhaps even enrich existing ones’,¹⁶⁰ artefacts communicate with the general public ‘through the merging of sound, moving images, graphics, animation and computing’.¹⁶¹ Advanced computing technologies contribute to create a multimedia and multi-sensory context of the artefacts.

By creating such an interactive environment composed of written text, audio text, and visual text, artefacts are not tacit any more. Instead, they start to ‘speak’ for themselves. Communications are carried out by means of audiovisual materials. As a result, the general public’s reaction towards artefacts transforms from ‘read’, to ‘listen,’ to ‘watch’, to ‘touch’, to ‘speak’, or to ‘operate’; simply, to interact and experience. Verbal-storytelling contributes to making the artefact ‘speak’ by creating an interactive environment of audiovisual texts.

2.4 Medium - Meaningful Artefacts

Contained in the museum, man-made artefacts are the medium for later generations to understand and make sense of the past civilisations. If natural objects can be regarded as elements invented by the hands of nature with the intention of informing the evolution of the natural world, the man-made artefacts therefore are the significant elements incarnate in human beings’ ability to interact with the natural surroundings and creativity of constructing the built environment. Even though natural objects do not have too many connotations of human beings, they are likewise the media for human beings to discern the natural world, and to establish relationships between ourselves and the vast world we inhabit.

¹⁵⁹ Hooper-Greenhill, Eilean. *Museum, Media, Message*, OX: Routledge, 1995, p. 89.

¹⁶⁰ Prochnak, M. Multimedia is the message, *Museums Journal*, 1990, vol. 8, p. 25.

¹⁶¹ Hooper-Greenhill. *Museum, Media, Message*, p. 89.

Shaping the main material body of museum collections, artefacts are powerful metaphors of material representations to reflect complex beliefs and thoughts.¹⁶² Displayed in the museums, their meanings shift as their original context changes. In other words, in the original context, they are products used by normal people in daily life. However, when they are displayed in the context of a museum, they become symbols of the essence of different social lives. Under such circumstances, artefacts are not only signified signs but also ‘inscribed signs of cultural memory’ that signifies cultural meanings.¹⁶³

In the general sense, when artefacts were made in past times, they represented a functional meaning, such as stone tools made for cutting, clothes made for protecting and warming, and early architecture for sheltering. Humans fashioned these artefacts in order to meet their physiological needs. As society developed, more artefacts were created in order to meet the higher needs of humans. For instance, people made decorations, such as necklaces or earrings, to adorn themselves in the pursuit of beauty; they built sacred structures such as temples or churches in the pursuit of spirituality. Artefacts are the products of human cognitive activities which embody significant meanings. Regardless of what kind of meanings the artefacts were endowed with, during the process of human evolution, artefacts ‘are used to materialise, to concretise, to represent, or symbolise ideas and memories’,¹⁶⁴ and, through these processes, artefacts ‘enable abstract ideas to be grasped, facilitate the verbalisation of thought, and mobilise reflection on experience and knowledge’.¹⁶⁵ Last but not least, artefacts are significant media to convey meanings in different contexts and to pass on cultures.

‘We do not have any mental record of who we are until narrative is present as a kind of armature, giving shape to that record’.¹⁶⁶ By housing collections of artefacts, museums, as the spatial context, offer opportunities for these disconnected ‘cultural

¹⁶² Hooper-Greenhill. *Museums and the Interpretation of Visual Culture*, p. 109.

¹⁶³ Bhabha, H. K. *The Location of Culture*, 1st ed. London: Routledge, 1994, p. 7.

¹⁶⁴ Hooper-Greenhill. *Museums and the Interpretation of Visual Culture*, p. 112.

¹⁶⁵ *ibid.*, p. 112.

¹⁶⁶ Abbott. *The Cambridge Introduction to Narrative*, p. 3.

signs' to be brought together to communicate their meanings individually and collectively. Within the context of the museums, artefacts not only embody 'the patterns of thoughts, attitudes and beliefs' which structure the past society,¹⁶⁷ but also 'construct the common-sense categories within which modern individuals and communities orient their lives and expectations'.¹⁶⁸ As creative and symbolic metaphors left by the past, artefacts are endowed with new meanings in modern society. As the significant media, artefacts connect the past and the present, and collected in an entirety, modern humans can therefore retrieve the memory of past societies and discern past lives. Within the context of museums, artefacts can be associated with our deepest psychological need to shape humans experiences.¹⁶⁹ Within the context of the museums, according to the researcher's own observations on a number of perspectives, artefacts are categorised into media carrying various meanings - *functional meanings*, *metaphorical meanings*, *narrative meanings* and *material meanings*.

2.4.1 Functional Meanings

Functional meanings are the elementary meanings contained by the artefacts. It is undoubted that humans create artefacts in order to actualise their different levels of needs, physiologically, psychologically and spiritually. In regard to physiological need, humans create various containers such as bowls and jars in order to collect water for their daily use; they cut wooden sticks into different lengths with the purposes of fighting, burning and eating; they build shelters to protect themselves from adverse weather conditions. In regard to psychological need, humans create delicate items of jewellery which are highly appreciated by women for them to please themselves and others; they build shelters not only to protect themselves from bad living conditions but also to seek safety and comfort. In regard to spiritual need, humans with religious beliefs usually prepare votive offerings such as vessels made of precious materials as

¹⁶⁷ Hooper-Greenhill. *Museums and the Interpretation of Visual Culture*, p. 111.

¹⁶⁸ *ibid.*, p. 111.

¹⁶⁹ *ibid.*, p. 111.

dedications to their gods; they build temples and churches to meditate and to pray.

Whether physiological, psychological or spiritual, these needs could all be regarded as the reasons resulting in the functional meanings contained by artefacts. Generally speaking, in the museum context, the interpretation of artefacts' functional meanings can be frequently observed, particularly in the condition of anthropological collections, which rely greatly on the artefacts to tell the events of human society, such as the making and using process of artefacts. Through introducing the process of the functional development of the artefacts, the evolution of social life and the progress of civilisation can be penetrated, and also, through interacting with artefacts reflecting functional meanings, the general public can acknowledge an insightful understanding of humans' ability to invent and create our environment.

2.4.2 Metaphorical Meanings

In addition to the functional meanings of the artefacts, artefacts contain *metaphorical meanings* in which 'the meanings [are] deliberately imposed upon them through the context in which they are placed, and through an anticipation of how they will be encountered'.¹⁷⁰ As discussed in Chapter One, meanings are affected by contexts.¹⁷¹ Regardless of whether it is the social context or the individual context, both can influence humans' understandings of artefacts. Even though artefacts have already contained various functional meanings since the time of their creation, they will be imbued with metaphorical meanings during the process of humans' communication, within different social and individual contexts. Hence, based on the researcher's observations, these metaphorical meanings could be categorised into *memorable meaning*, *cultural meaning*, *historic meaning*, *aesthetic meaning* and *political meaning*.

As discussed above, originally, humans created artefacts in order to actualise their

¹⁷⁰ *ibid.*, p. 110.

¹⁷¹ See 1.4 The Idea of Context, p. 36.

different levels of needs - physiological, psychological and spiritual.¹⁷² Used by different humans, artefacts gradually accumulate memorable meanings. For instance, a young lady always wears a pearl necklace for the reason that it was left to her by her grandmother; thus, the simple artefact of the pearl necklace not only contains the functional meanings of decoration but also contains memorable meanings. In the same way, parents normally keep items from their children's early years to remind them of their children's growth. In the museum context, *memorable meanings* can be understood by collections of daily personal belongings such as clothes, shoes, books and other such items. The extreme cases can be instantiated as collections in the holocaust history museums. With such items as left by the people who spent their days in the concentration camps, artefacts in the holocaust history museums no longer reflect functional meanings of artefacts but concentrate on reflecting memorable meanings. Compared with artefacts displayed in the museum with daily functional meanings, these artefacts, possibly made of the same material, do not intend to reflect human events of making or using them in the functional sense but to highlight the psychological and emotional levels they symbolises. In other words, the museum context has already affected meanings of these daily artefact; they have shifted from the function of using to the function of commemoration.

In the museum context, artefacts are collected from different places of the world. Some of them represent daily activities of humans. Some of them represent ritual events of humans which particularly reflect humans' thoughts and beliefs concerning recognition of themselves and the world that they lived in at that time. Artefacts that represent ritual events contribute to reflect *cultural meaning*.

An example of such can be the collections of Egyptian mummies in the British Museum. Discovered in many parts of the world, 'mummy' refers to the body of a human or animal, whose skin and organs have been preserved intentionally by chemicals in order to keep the body from decaying through natural conditions.

¹⁷² See 2.4.1 Functional Meanings, p. 59.

Collections of mummies in the British Museum contribute to tell us about the ritual activities of how ancient Egyptians believed in the afterlife and how they conducted the process of burial mummies. Therefore, by being displayed in the British Museum, these artefacts not only represent their original meanings as a product of religious activities, but are also a symbol of Egyptian culture in parallel with other cultures being displayed in the British Museum.

Under some circumstances, a few artefacts could be regarded as the milestones in history for the reason that these artefacts unlock the doors leading to other civilisations. For some reasons, these ‘doors’ could have been locked for quite a while. The Rosetta Stone displayed in the British Museum is one of these artefacts which contain *historic meaning*. Issued in 196 BC on behalf of ancient Egyptian King Ptolemy V, the Rosetta Stone is an intrusive igneous rock stele inscribed with a decree appearing in three types of texts: Ancient Egyptian hieroglyphs, Demotic script, and Ancient Greek. Because the same content is presented in three different texts, the Rosetta Stone, discovered in 1799 by French Lieutenant Pierre-Francois Bouchard in the Egyptian city Rosetta, and then preserved in the British Museum from 1802, offers great opportunities for contemporary archaeologists to identify the meanings of the Egyptian hieroglyphs. As a significant artefact, it is therefore a historic milestone for later generations to discern the history of Ancient Egypt.

Besides the above metaphorical meanings, artefacts also have *aesthetic meaning*. Regarded as the specific place to collect art artefacts, art museums are the most prominent place to convey aesthetic meanings. Take the Musée du Louvre in Paris for instance; among all the artefacts in the Louvre Museum, it is well known that three treasures are the most important - the Mona Lisa painted by Leonardo da Vinci, the Winged Victory of Samothrace; also called the Nike of Samothrace, and the Venus de Milo, which is thought to have been sculptured by ancient Greek sculptor Alexandros of Antioch. Even though these artefacts have already been removed from their original contexts, they can still be considered as symbols of beauty. With reference to Nicholas

Serota, director of the Tate Modern, the United Kingdom's national gallery of modern and British art, 'the work of single artists obliges us to develop our own reading of the work rather than relying on a curatorial interpretation of history'.¹⁷³ Thus, compared with other meanings, aesthetic enjoyment and pleasures relating to these artefacts are much more significant. The reading of them could be complex or simple. Without too much interpretation of artefacts containing aesthetic meanings, based on different personal backgrounds, the general public would probably have different experiences through interacting with artefacts with *aesthetic meanings*.

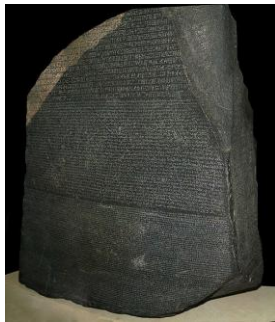


Figure 2.1 Rosetta Stone in the British Museum
(Source: http://en.wikipedia.org/wiki/Rosetta_Stone)



Figure 2.2 Mona Lisa
(Source: http://en.wikipedia.org/wiki/Mus%C3%A9e_du_Louvre)



Figure 2.3 Winged Victory of Samothrace
(Source: http://en.wikipedia.org/wiki/Mus%C3%A9e_du_Louvre)



Figure 2.4 Venus de Milo (Source: http://en.wikipedia.org/wiki/Mus%C3%A9e_du_Louvre)

Last but not least, artefacts are political metaphors. Commencing during World War I and reaching its peak from 1916 to 1922, Dada or Dadaism was a cultural movement that began in Zurich, Switzerland. Involving many art fields such as visual arts, poetry, and graphic design, Dadaism concentrated on its anti-war politics through a rejection of the prevailing standards in art with anti-art cultural works. For the purpose of ridiculing what its participants considered to be the meaninglessness of the modern world, one of the most prominent 'art works' was the submission by French artist Marcel Duchamp of 'Fountain' (figure 2.5), a urinal, to the Society of Independent

¹⁷³ Serota, Nicholas. *Experience or Interpretation: The Dilemma of Museums of Modern Art*, New York: Thames & Hudson, 2000, p. 10.

Artists' exhibition in 1917.

According to Duchamp, art was all technique with no real passion in the 1900s, and there was nothing particularly exciting about it. While all artists concentrated on painting, he started to thinking about other ideas of representing art. From his radical ideas about what art should be, Duchamp conceived the art work titled 'Fountain' for a show promoting Avant-garde art in 1917. The art community was highly shocked; what he did was at the time rejected and even ridiculed. Regarded as one of the best known examples of Dadaism's anti-art, the functional meaning of the urinal was obviously changed in the new context. It was no longer a urinal which was used daily by humans, but functioned as a symbolic metaphor with the purpose of rejecting and making fun of current art, and opposing anything that at the time was considered real art.



Figure 2.5 Duchamp - the
Fountain (Source:
[http://en.wikipedia.org/wiki/
Fountain_\(Duchamp\)](http://en.wikipedia.org/wiki/Fountain_(Duchamp)))



Figure 2.6 Picasso - Guernica
(Source: [http://en.wikipedia.org/wiki/Guernica_\(painting\)](http://en.wikipedia.org/wiki/Guernica_(painting)))

Another example could be drawn from the work of world-renowned Cubist Spanish artist Pablo Picasso's *Guernica* (figure 2.6). During the devastating bombing of Guernica, a Spanish Basque town, the painting was created to present the tragic scene of innocent civilians' serious suffering and infliction during the war. Gaining monumental status, *Guernica* has become a perpetual reminder as an indestructible

anti-war symbol.

Guernica was initially exhibited in July 1937 at the Spanish Pavilion at the Paris International Exposition. Financed by the Spanish Republican government at the time of civil war, the Aeronautics Pavilion, featuring the latest advances in aircraft design and engineering, was a centrepiece of the exposition. Ironically, Guernica, as the most prominent monument of the exposition, became the most enduring symbol of the horrors of war and the inhumane use of technology in the twentieth century. Regarded as a testament to the horrors of Fascism, the authority of this painting is reflected in the hanging of a tapestry reproduction of Picasso's painting outside the Security Council of the United Nations, one of the principal institutions of the United Nations, and is charged with the maintenance of international peace and security. It is poignant that this symbolic painting served as the backdrop to many of the public statements by diplomats engaged in the Security Council debate during the winter of 2003 over the use of military force in Iraq. According to the BBC documentary film series - Simon Schama's Power of Art:

In February 2003, the American Delegation to the United Nations decided to make its pessimistic case for the likelihood for the armed intervention in Iraq, Colin Powell's presentation to the Security Council was to be followed by a press conference. And then, at the last minute, someone noticed something inconvenient about the location. There was a tapestry reproduction of Guernica hanging on the wall. "Oh dear, screaming women, burning houses, dead babies, jagged lines". "Cover it up", said the TV people, "It's too distracting". So Guernica was shrouded by a deep blue drape. The news handlers could have said: "Hold on a minute, we could show the painting. After all, this is what the tyrants do, death, suffering, misery". But they didn't. However you massage it, there was something about the way that damned picture would look on the news that would upset people, much better to cover it up.¹⁷⁴

The comments clearly indicate the political meaning connoted by the painting in the specific spatial context. Originally, the painting was created merely as an artistic

¹⁷⁴ BBC Documentary Film Series: *Simon Schama's Power of Art* [film], directed by Carl Hindmarch, London: BBC Worldwide, 2007, episode 3: Picasso.

representation of Picasso's protest against the invasion of his motherland; however, displayed in different contexts, the painting itself has already accumulated metaphorical meaning so that it can be regarded as a powerful political metaphor. Even though it is silent, the interpretation of the painting is not limited to the understanding of the poignant criticism of the invasion of the Spanish town Guernica. The painting gradually develops into the political metaphor which can rouse emotions under any relevant, and related, context.

To summarise, artefacts are significant media which enable reflection and speculation.¹⁷⁵ Even though artefacts cannot speak for themselves, in some ways, it is only through artefacts that abstract ideas can be thought of at all.¹⁷⁶ During the process of communication, metaphorical meanings are those abstract ideas conferred upon artefacts by humans. 'Without the concrete material thing, the ideas would remain at an abstract individual level and it would be much more difficult to share it'.¹⁷⁷ Artefacts 'enable abstract ideas to be grasped, facilitate the verbalisation of thought, and mobilise reflection on experience and knowledge'.¹⁷⁸ What is more, artefacts 'perpetuate and disseminate social values' which contribute to promoting communications through the social, individual and architectural levels.¹⁷⁹ Therefore, as collections within the museum context, regardless of whether artefacts are displayed with functional meanings or metaphorical meanings, they are all meaningful artefacts. They are the tangible media for museums to communicate meanings to the general public, and to relate or to represent significant events in the lives of human beings, and to help facilitate social and personal value.

2.4.3 Narrative Meanings

According to the researcher's observation on artefacts, in addition to functional meaning and metaphorical meaning, there is one more meaning contained by a limited

¹⁷⁵ Hooper-Greenhill. *Museums and the Interpretation of Visual Culture*, p. 108.

¹⁷⁶ *ibid.*, p. 108.

¹⁷⁷ *ibid.*, p. 108.

¹⁷⁸ *ibid.*, p. 110.

¹⁷⁹ *ibid.*, p. 110.

group of artefacts, which further emphasises the point that artefacts are not merely media for interpreting events, but in the practical sense, authentic materialised narrative representations.

For Bruner, all narrative is rooted in our ancient heritage of storytelling. As discussed in Chapter One, human speech contributes to not only exchanging simple messages but also telling events.¹⁸⁰ Telling is the original action that human beings employ to describe events. In other words, verbal-storytelling is the original form of storytelling. As the society develops, writing and other cognitive activities expand human beings' abilities to record their events, to shape their experiences of everyday life and to express ideas. Equally, artefacts are created as depictions of human beings' events. Depicted in different forms, ordinary people write down meaningful events during their lifetime in diaries; master writers produce an individual biography or a nation's epic; and painters and sculptors handily create and actualise real or imagined lives in different tangible materials. Humans employ storytelling-interpretation to interact and communicate with the surrounding world. As discussed in Chapter One, humans create not only verbal-storytelling, but also *written-storytelling*, *visual-storytelling* and *spatial-storytelling*.¹⁸¹ Thus, the idea of artefacts having narrative meaning could be instantiated by the following examples of artefacts.

The Diary of Anne Frank (figure 2.7) is the relic of the life of Anne Frank and her family. During the days of Nazi occupation of the Netherlands, Anne brought a diary with her when she was hiding in the Secret Annex with her family for two years. In those days, isolated from the outside world, what she thought about life was all recorded in her diary. Anne Frank died of typhus in the Bergen-Belsen concentration camp before liberation. The diary was retrieved by Miep Gies, one of the Dutch citizens who hid Anne Frank and her family and several family friends in the Secret Annex, and eventually transferred to Anne's father, the only known survivor of the

¹⁸⁰ See 1.3.1 Definition of Narrative, p. 24.

¹⁸¹ See 1.3.3 Storytelling-Interpretation: Medium of Action and Medium of Representation, p. 26.

family. With the original diary displayed at the Anne Frank Zentrum in Berlin, Germany, the diary has been translated into more than 60 different languages for publication. Representing personal thoughts and daily events, the diary is the *written-storytelling* for later generations to judge the atrocity of the Nazis.



Figure 2.7 Anne Frank's Diary
(Source:
<http://www.factsofworld.com/anne-frank-fact>)

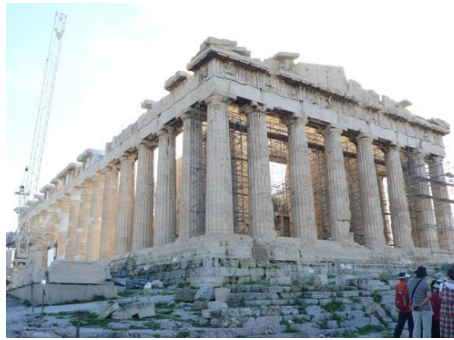


Figure 2.10 The Parthenon Temple (Photo by researcher)



Figure 2.9 Bernini - sculpture of Apollo and Daphne
(<http://www.galleriaborghese.it/borghese/en/edafne.htm>)



Figure 2.8 One section of the whole painting - Along the River During the Qingming Festival (Source:
http://en.wikipedia.org/wiki/Along_the_River_During_the_Qingming_Festival)

Along the River During the Qingming Festival (figure 2.8) is a panoramic painting by Chinese artist Zhang Zeduan from the Song Dynasty 1085 to 1145. The entire piece was painted on hand scroll which was five metres long, with depicted figures consisting of 814 humans, 28 boats, 60 animals, 30 buildings, 20 vehicles, nine sedan chairs and 170 trees. By depicting local people's different daily activities from all social classes in rural areas and the civic areas during the Qingming Festival, this painting is a visual-storytelling not only inscribing significant events but also offering glimpses of the identification of the Song Dynasty, through people's clothing and architecture styles.

The Sculpture of Apollo and Daphne (figure 2.9) is a baroque life-size marble sculpture created by Italian artist Gian Lorenzo Bernini. Inspired by one of the stories in the Latin narrative poem, *Metamorphoses*, written by Roman poet Ovid, Bernini's sculpture represents events happened between Apollo and Daphne. According to the BBC documentary film series - Simon Schama's *Power of Art*:

It is an all-action sculpture. Apollo breaking his breathless run, his cape and his hair still flying in the wind. Daphne, who's cornered, isn't rooted to the spot, except botanically, and seems to be climbing into the air. Her mouth open wide in a scream. Hair and fingers already metamorphosing into leafy twigs.¹⁸²

Compared with written-storytelling as abstract text presented on paper, visually-storytelling as painting and sculptures contributes to not only communicating meanings contained by artefacts, but also to generating immediate experience for the viewers. Different from the experience generated by artefacts containing functional meaning and metaphorical meaning, the immediate experience generated by artefacts as the embodiment of visual-storytelling is a mediated experience, which is the mediated understanding and representation of the past event (real or imagined). Therefore, visual-storytelling can be regarded as the medium in which past and present actually interpenetrate.¹⁸³ It is, as a meaningful artefact, not actually a means of representing an authentic event which is already known, but rather of discovering the previous unknown, a diversity of world perspectives.¹⁸⁴

To summarise, if the media of written-storytelling and visual-storytelling for representing human events are tangible materials, the medium of spatial-storytelling for representing events therefore includes both tangible medium and other medium such as space.

The Parthenon Temple, one of the most influential buildings in Western civilisation,

¹⁸² BBC Documentary Film Series: *Simon Schama's Power of Art* [film], directed by Carl Hindmarch, episode 2: Bernini.

¹⁸³ Linger, ed. *Hans-Georg. Gadamer: Philosophical Hermeneutics*, p. xxviii.

¹⁸⁴ *ibid.*, p. xxx.

also adopts storytelling to depict events of significance. The Parthenon sculptures on the Parthenon Temple, commonly known as the pediments, the metopes and the Ionic Frieze, are marble depictions of the Greek mythology and ritual festival. The east pediments depict the birth of the Goddess Athena. The west pediments depict the contest between Athena and Poseidon. The east metopes depict the Gigantomachy which is the battle between the Olympian Gods and the Giants. The west metopes depict the fights between Greeks and the Amazons, a mythical tribe of female warriors, the north metopes depict events of the Trojan War, and the south metopes depict the Centauromachy. The low relief sculptures of the Ionic Frieze, which are considered the most prominent part of the Parthenon sculptures, depict the procession to the Acropolis which took place during the Greek Panathenaia, the festival in honour of the Goddess Athena. Regardless of technical differences between the pediments, the metopes, and the Ionic Frieze, they are all representations of mortals' or immortals' events displayed in the space on the Parthenon Temple, especially the continuous Ionic Frieze carved on the four side-walls of the Parthenon cella.

Hence, if the written-storytelling can be regarded as the significant medium of generating communication by abstract text, the visual-storytelling can be regarded as the significant medium of generating communication by materialised representation of events; thus, the spatial-storytelling can further be regarded as the significant medium of generating communication by not only materialised representation of events but also embodied experience of the architectural space. Events, in the practical and broad sense, do not merely refer to those inscribed by tangible materials such as written-storytelling or visual-storytelling, but are accumulated through the humans' living events taking place on site. Therefore, compared with the written-storytelling and visual-storytelling, the media of representing events of spatial-storytelling are not only tangible materials but also the architectural space.

Hence, artefacts with narrative meanings are instantiated by both small-sizes artefacts and architecture. If the artefacts could be regarded as the tangible media left by the

past generation to convey meanings of significant human events to the later generation, when these artefacts have been removed from their original architectural context and collected into the museums, how do these artefacts still convey the same meanings to the general public, and what are the new media through which artefacts convey the meanings they depict?

2.4.4 Material Meaning

If functional meanings, metaphorical meanings or narrative meanings of artefacts is rendered by humans based on various personal interpretations of the outside world, then material meanings is the innate meanings that is contained by the artefacts.

We human beings live in the material world, ‘materiality is all we are and all we have’,¹⁸⁵

We engage with the material world from the moment we are born, we learn intuitively what it is, we make it physically, we shape it emotionally, we create meanings, consume objects and meanings together, and even give those objects, and perhaps even those meanings, to others.¹⁸⁶

No one would deny that human bodies consist of materials - skeletons, skin, hair, teeth and every other constitutive organ. No one would deny either that ‘humans, like other mammals, are equipped with skins which can feel, eyes which can see, ears which can hear, and mouths and noses which can taste and smell’.¹⁸⁷ Human comprehends materials through senses and experience.¹⁸⁸ Regardless of what meanings are contained by and within artefacts, they are, in the primitive sense, materialised real bodies. Compared with other meanings, materiality is the fundamental and foremost meanings contained by artefacts. Since materiality has such a strong and intimate connection with humans’ senses and experience, collected in the museum context, the

¹⁸⁵ Pearce, M. Susan. Forward, in: Dudley, H. Sandra, *Museum Materialities: Objects, Engagements, Interpretation*, London: Routledge, 2009, p. xiv.

¹⁸⁶ Knell, K. Simon. *Museums in the Material World*, London: Routledge, 2007, p. 16.

¹⁸⁷ *ibid.*, p. xv.

¹⁸⁸ *ibid.*, p. xv.

interpretation of the materiality of artefacts should be paid as much attention as other meanings.

Based on the above discussion, artefacts are meaningful media which can generate communication in different contexts, not only social, but also individual and spatial. Hence, being removed from their original context and brought into the context of the museums, how can these diverse meanings be communicated within the museums and how does the museum become ‘a context for person-artefact engagements’.¹⁸⁹

2.5 Medium - Museum Architecture: Spatial-Storytelling?

Created, built, lived, and experienced by humans, architecture is more than just a shelter; it is also a significant artefact. Like small artefacts, architectures have materialised into three-dimensional bodies. The difference between architecture and small artefacts is not only in size - architecture is much larger than a small artefact - but also the embodied experience of human beings. For small artefacts, humans could only ‘interact’ with them from outside by touching, observing, holding, etc, although in fairy tales or science fiction films, human beings could be ‘metamorphosed’ to other peculiar life styles travelling within artefacts - fairies could hide themselves in candy boxes or washing machines, or virtual life could live in computers and communicate with the real world through computer screens. Realistically, we human beings live in the physical built environment, which includes architectures. Therefore, for a large artefact like architecture, humans not only touch, observe and hold, but also inhabit it, and carry out activities within it.

In the museum architecture, if collections of artefacts could be considered as iconic concentrates of human beings’ culture and life, then the building itself is the authentic artefact of human beings’ cultures and lives. In addition to collecting small artefacts from different time and places symbolising cultures, architecture equally shapes the

¹⁸⁹ *ibid.*, p. 2.

contemporary culture through offering the general public a common place to communicate and to participate in activities - mentally, sensibly, and bodily. If the artefacts and the audiovisual texts are both presented as the media to communicate with the general public, then how could the museum architecture be considered as the medium to communicate meanings? For the architecture of the museum, the medium is composed of intangible architectural space and the tangible material. Intangible media could further be categorised into *circulation*, *space layout* and *lighting*.

2.5.1 Intangible Medium - Space

Circulation is the movement of the general public within a certain enclosed space. It stands for both the circulation *between* galleries and the circulation *within* an individual gallery.

The circulation between the galleries relies on how museum professionals identify the main themes of artefacts in the galleries. In many cases, collections of artefacts are identified by chronological and geographical or typological similarities. In the ground floor galleries of the British Museum, for example, galleries, especially the west wing galleries, are arranged on behalf of different cultures from different places - culture of Ancient Egypt, culture of Middle East, and cultures of Ancient Greece and Rome. In other words, the arrangement of circulation between galleries is based on the collections' geographical characters.

Referring to the circulation within the individual gallery, the 'narrative machinery' concluded by Bennett (mentioned in the first section of this chapter) that has been applied in early public museums in fact contributes to this circulation. Instantiated by the case of the Australian National Museum, Witcomb concluded that circulation in the individual gallery is usually arranged in a linear narrative which has a one-way flow, with a tunnel in the middle and with artefacts displaying on both sides.¹⁹⁰ Even

¹⁹⁰ See 2.2.4 Storytelling as a Method, pp. 50-51.

though the circulation within the galleries has been developed into various arrangements, the method of linear narrative is still employed in many permanent or temporary museum designs today.

Regardless of the circulations between galleries or within an individual gallery, arrangements of circulation relate closely with artefacts. It is always the first and outer layer of impression that is shaped by artefacts, not by viewing the real bodies of artefacts closely, but by the abstract ideas or beliefs - culture, places, and time that are reflected within these cultural signs, or the first impression of collections. Circulation is non-material. It could only be achieved through the authentic movements of the general public by visiting and by experiencing. In other words, despite the needs for circulation to be conducted through the movement of the general public, the principles of circulations arrangements still rely on the museum professionals' understanding of different meanings contained by artefacts.

The medium of space layout generally refers to the space layout of the artefacts within the galleries. To some extent, the space layout is overlapped with the circulation of the general public's movement within galleries.

First, different forms of space will produce different arrangement of artefacts. Rectangular space, the universal form of gallery space, is suitable for arranging artefacts in a linear narrative coherently. Circular space, which could converge the general public's view to the central point, is more suitable for gathering than for passing. Tunnel space (for example, Frank Lloyd Wright's Guggenheim) is more suitable for passing than staying. Irregular space (for example, Frank Gehry's Bilbao Guggenheim) exerts more spatial experience than artefacts themselves.



Figure 2.11 Interior space of Frank Lloyd Wright's Guggenheim Museum (Source: http://jwanderson.files.wordpress.com/2010/06/flwr_ight_guggenheiminterior.jpeg)



Figure 2.12 Interior space of Frank Gehry's Bilbao Guggenheim Museum (Source: <http://www.concierge.com/travelguide/bilbao/photos/photoview/61470>)

Second, the dimensions of the space layout also influence the spatial experience of artefacts. Under many circumstances, the significance of dimensions is reflected from both galleries in neighbourhoods and within galleries. For galleries in neighbourhoods, dimensional difference can be seen through a small gallery in contrast with a large gallery, a higher gallery in contrast with a low gallery, a narrow gallery in contrast with a wide gallery and so on. Within a gallery, dimensional significance is reflected through the arrangement of artefacts. For instance, 'a display with very few objects in a large space assumes greater significance than a display with a large number of artefacts packed into a smaller area'.¹⁹¹

Third, space layout of the artefacts decides the circulation of the general public within galleries. In many cases, meanings of artefacts can be conferred by their spatial positions in the galleries. How an artefact is placed with respect to other artefacts or how artefacts are displayed in some commanding places in the gallery would more or less affect the general public's movements and the experience.¹⁹² If the circulation between the galleries shapes the first layer of spatial experience of different themes that are reflected by each gallery, the space layout of the artefacts within galleries thus

¹⁹¹ Kavanagh. *Museum Languages*, p. 85.

¹⁹² *ibid.*, p. 85.

decides both circulation within galleries and the meanings of artefacts. Therefore, the space layout of the artefacts, as the intangible medium, shapes the second layer of the spatial experience.

In addition to circulation and space layout, the intangible media of architectural space also contain lighting. Regardless of natural light or the invention of the first bulb by Thomas Edison in 1879, light illuminates the human's life and evolution. It not only lets us see the world better, either in bright conditions or in dim conditions, but also offers us the metaphor of warmth and hope.

In many museum cases, which are usually immersed in the bright conditions offered by natural light with large areas of openings on the ceiling or on the upper sections of the surrounding walls, public spaces are permeated with an atmosphere of vividness and pleasure, which metaphorically indicates the ideas of sharing and communicating. Different from the museum public spaces, gallery spaces, which are often installed with numerous artificial bulbs, are concerned more with the themes of collections of artefacts or individual pieces. For example, the Gallery of minerals in the Natural History Museum, London, is a very bright place with sufficient windows on the walls so that artificial lighting is not required during the daytime. In contrast, the recently concluded temporary exhibition, 'Treasure of Heaven - saints, relics and devotion in medieval Europe' in the central reading room of the British Museum, was arranged in extremely dim conditions which precisely reflected the sacredness of the religion by creating a mysterious atmosphere. Different themes depicted among the collections of artefacts decide the lighting within galleries. Sometimes, in order to achieve a mysterious atmosphere of the space and collection, underground space could be adopted in the design.



Figure 2.13 Interior space of the Gallery of minerals in the Natural History Museum, London (Source: <http://www.ourtravelpics.com/?place=london&photo=488>)

To summarise, regardless of whether the media of circulation, space layout or lighting, each is intangible - it can never be touched, only sensed and experienced. Even though each of them is intangible, they all contribute to communicating meanings of artefacts and shaping the general public's experience on both the architecture space and the artefacts. They convey meanings of artefacts by tacitly shaping the space of collections and by directing the general public's movement.

2.5.2 Tangible Medium - Material

Compared with circulation, space layout and lighting, as far as the architecture is concerned, material is the only tangible medium which can be seen, sensed and touched by the general public. As argued in the discussion on material meanings above, relating to meaningful artefacts, it is the material that validates the architecture as the embodiment of human beings' lives in the physical sense.¹⁹³ Without material, the intangible media of circulation, space layout and lighting would find no place to root. Intangible media need material to validate their advantages and significances in communicating the meanings of artefacts. It is the material that makes architectural

¹⁹³ See 2.4.4 Material Meaning, p. 71.

space, as the materialised embodiment of human being's life and activities, into real forms eventually.

Therefore, museum architecture offers the artefacts a physical context within which to 'speak' for themselves in the form of a materialised space. The limitation of the medium of audiovisual texts, which shape the general public's experience by different abstract texts, lies in the fact that they only interpret artefacts at an articulated verbal level.¹⁹⁴ Even though the medium of audiovisual texts consists of various interactive texts, it still lacks the ability to generate intuitive and immediate embodied experience. 'The material properties and physical presence of the artefact demand embodied responses, which may be intuitive and immediate'.¹⁹⁵ The artefact here of course encompasses both the small artefact and the large architecture. According to the general public's previous knowledge or cultural background, their responses to both small and large artefacts may vary, but the 'initial reaction to an artefact may be at a tacit and sensory level rather than an articulated verbal level'.¹⁹⁶ Architecture, as a physical place, offers humans a new layer of context - the spatial context. If audiovisual texts as representation of abstract ideas or principles which contribute to facilitating humans' understanding of artefacts and promoting communication in the museum, the spatial context, thus, represents a physical space for humans to meditate, to inhabit and to experience, not in an abstract sense but in a real, embodied way.

Certainly, this is absolutely not to disparage the significance of text in communicating the meanings of the artefact; this is, merely to suggest that architecture should be considered as an irreplaceable element within the entire tangible materiality of museum artefacts during the process of the design. As questioned by Bourdieu: 'Is it possible to use architecture, and especially the symbolic power of architecture, in order to restructure habitus and to break up the supposed vicious cycle obtaining

¹⁹⁴ Hooper-Greenhill. *Museum, Media, Message*, p. 112.

¹⁹⁵ *ibid.*, p. 112.

¹⁹⁶ *ibid.*, p. 112.

between structures and habitus’?¹⁹⁷ In the museums, the spatial context should be considered as ‘a system of *dispositions*, that is of permanent manners of being, seeing, acting and thinking, or a system of *long-lasting* (rather than permanent) schemes or schemata or structures of perception, conception and action’.¹⁹⁸ Since the verbal-storytelling could not comprehensively interpret small artefacts, therefore, the concept of spatial-storytelling needs to be introduced and employed.

2.6 Conclusion

To conclude, in order to achieve the concept of spatial-storytelling through interpreting the artefacts, the media of circulation, space layout, lighting, and material should all contribute to communicate meanings of small artefacts. Then, in order to prove that the museum architecture could be considered as the medium of spatial-storytelling to communicate meanings, are there any museum cases that adopt their architecture space as spatial-storytelling of artefacts? As stated in the Introduction, the idea of spatial-storytelling adopted in this thesis involves at least two levels of meanings - the shelter of the museum building and the architectural fragment which are contained within.¹⁹⁹

In regard to architecture as artefact displayed in the museum, there are some museum cases illustrating this level of meaning. Beamish, a North of England Open Air Museum which located at Beamish, England, is the case of a whole village as artefact displayed in the museum which contributes to preserve an example of everyday life in urban and rural North East England at the climax of industrialisation in the early 20th century. Through utilising a mixture of translocated, original and replica buildings together with a huge collection of artefacts, working vehicles and livestock and costumed interpreters, this open air museum interprets the past local lives in an architectural way from the urban scale. In addition to a whole village as artefact

¹⁹⁷ Hillier, and Rooksby, eds. *Habitus*, p. 43.

¹⁹⁸ *ibid.*, p. 43.

¹⁹⁹ See Introduction, p. 2.

displayed in the museum, the Pergamon Museum in Berlin and the Ara Paxis museum in Rome are cases of complete buildings as artefacts in museums for communication. Housing original-sized reconstructed monumental buildings such as the Pergamon Altar and the Market Gate of Miletus, and the original Altar of Peace, both museums contribute to interpret significant meanings contained by complete buildings from an architectural scale. Besides the above cases, museums also install façades or streetscape as part of architecture inside its space to interpret past lives of different societies. In the Grand Hall in Canadian Museum of Civilisation, by designing a wall as a colourful photograph capturing a forest scene, the Hall provides a backdrop for a dozen towering totem poles and recreations of six Pacific Coast Aboriginal house facades connected by a boardwalk. Same interpretive techniques are also employed in the Canada Hall in the Museum. Presented as a “streetscape”, this hall invites the visitor to stroll through hundreds of years of Canadian history beginning with the arrival of Viking explorers. Hence, scales of architecture as artefact displayed in museums varies from village scale to architecture scale to street and façade scale. In addition to the previous scales, fragments of architecture are also displayed in the museums. Examples could be instantiated as the Cast Courts in the Victoria and Albert Museum which houses hundreds of plaster casts of sculptures and architectural elements; the Bassai Sculptures Gallery which displays the Bassai Frieze in the British Museum; and also the two Parthenon Galleries selected in this thesis exhibiting the Sculptures of the Parthenon particularly the Ionic Frieze.

From the above discussion, the meaning of architecture as artefacts displayed in the museum varies from scales of urban village to small fragments of architecture. In regard to the other meaning of architecture as shelter of museum, there are countless examples which could be instantiated. Regardless of the primitive museum collections as cabinets of curiosities or modern museums as engaging environment of collections opens to the general public, shelter of the building plays a significant role in collecting artefacts and interpreting cultures. Therefore, regardless of various scales of architecture as different artefacts being displayed in the museum or the shelter of the

museum building, they could all be regarded as meaningful vehicles for the museum professionals to communicate with the contemporary society.

With the above intension and question in mind, a museum survey was carried out on museum cases comprising seven general categories - name of the museum, type, location, year of building, chief architect, official website, and gallery of spatial-storytelling. Through checking the relevant information of 130 museums around the world, two museums that are effectively exhibiting the 'same' material in markedly different ways - the Ionic Frieze at the Parthenon Galleries in the British Museum and the recently opened New Acropolis Museum in Athens - are selected. What is special about the artefacts - the Ionic Frieze - is that, not only is the Parthenon Temple the spatial-storytelling of the Ionic Frieze, but also the Ionic Frieze itself is a depiction of ritual events - a visual-storytelling. In the next part, the discussion will introduce the Ionic Frieze through its general function on Classical architecture to its specific application on the Parthenon Temple.

Chapter Three The Ionic Frieze on the Parthenon Temple as Spatial-Storytelling

Introduction

This chapter is structured in three sections. The content of the first section is a general discussion on Gottfried Semper's idea that original architecture actually metamorphosed from the weaving of branches to an analogous application of stone, as a meaningful activity of man. In addition to Semper's idea, the discourse introduces the frieze in Classical architecture and the frieze in Ancient Greece as textile-storytelling by employing the Panathenaia peplos as the narrative device. The content of the second section is the particular case study of a frieze as spatial-storytelling device; the Ionic Frieze on the Parthenon Temple in Greece.

The research method being applied in the writing of the first section is a brief literature review of references to Semper's ideas and historical development of the frieze in both textile weaving and architecture. The research method being applied in the writing of the second section is a case study based on a literature review of the Parthenon Temple. Therefore, this chapter is constructed mainly upon the discussion of how the 'frieze' metamorphosed from the material of textile-storytelling to the material of marble-storytelling on architecture, which naturally contributes to how spatial-storytelling is achieved on the Ionic Frieze and the Parthenon Temple.

3.1 Weaving the Frieze

3.1.1 Weaving Architecture; From Branches to Stone

For Roland Barthes, architecture could be regarded as a sign. In other words, in regard to architecture, it was no more than a building of the collection and composition of structural constructive elements - wall, floor, windows, pillars, and ceilings, and so on. Such a definition does not concern human beings' relationship with the building, or

architecture, to put it more formally. Architecture could not be considered as an arbitrary linguistic sign because humans 'use' it all the time. In the view of Barthes, architectural elements only serve functional purposes. In addition to viewing architecture from outside, humans inhabit it, which signifies different meanings to us, such as 'home', 'warm', 'entertain', 'safety' and others. Thus, if architecture is more than a sign, what does it mean to us?

According to Gottfried Semper, the origin of architecture 'involved not only a genealogy of art, but also speculations on the origin of society'.²⁰⁰ The origin of architecture 'lies in man's urge to bring the structure of his world to articulate and to sustain this world through embodied representation'.²⁰¹ Architecture 'is first and foremost an ordering activity',²⁰² which results from 'man's attempt to come to terms, in a tangible and spatial manner, with his place in the world'.²⁰³ In order to communicate with the surrounding world, architecture is the artistic 'means by which man makes - practically and symbolically - a world for himself'.²⁰⁴

For Semper, it is the hearth that enables humans to form their cultures and organise activities. 'Around the hearth the first groups assembled; around it the first alliances formed; around it the first [c]rude religious concepts were put into concepts of a cult'.²⁰⁵ In other words, hearth is the first and most important moral element of architecture.²⁰⁶ In addition to the hearth, according to Semper, there are three other elements which together formed the primitive dwelling of humans - the earthwork mound, the woven enclosure and the wooden roof. With reference to Semper, 'the dwelling was not the first creation of primitive man'.²⁰⁷ The hut was composed of the four primary architectural elements, 'each already developed in their representational

²⁰⁰ Hvattum, Mari. *Gottfried Semper and the Problem of Historicism*, Cambridge: Cambridge University Press, 2004, p. 13.

²⁰¹ *ibid.*, p. 46.

²⁰² *ibid.*, p. 10.

²⁰³ *ibid.*, p. 10.

²⁰⁴ *ibid.*, p. 13.

²⁰⁵ Semper, Gottfried. *The Four Elements of Architecture and Other Writings*, translated by Harry F. Mallgrave and Wolfgang Herrmann, Cambridge: Cambridge University Press, 1989, p. 102.

²⁰⁶ Hvattum. *Gottfried Semper and the Problem of Historicism*, p. 13.

²⁰⁷ *ibid.*, p. 14.

and utilitarian capacity as motifs of industrial art'.²⁰⁸ For Semper, the history of architecture begins with a history of practical art which in turn begins with 'motifs simultaneously embodying function, techniques and ritual action'.²⁰⁹ Further, after his observation of the primary elements of architecture - the hearth, the mound, the roof and the wall - Semper indicated that 'each of these elements corresponds to a particular technique of making, developed both in a ritual and a functional sense in the practical arts'.²¹⁰ The hearth originated in the firing of clay and consequently developed into techniques of ceramics. Stonework developed into the mound, and the carpentry developed into the roof. The enclosure that originated in the wickerwork of wall is associated with the techniques of weaving. The key link that contributed to Semper's map of the development of primary architectural elements was the motif of the wall.²¹¹ The original enclosure, as Semper argued, 'was not the solid wall or wood, but rather the primitive fence woven by branches and grass'.²¹² For Semper:

Wickerwork, as the original space divider, retained the full importance of earlier meaning, actually or ideally, when later the light mat walls were transformed into clay tile, brick, or stone walls. Wickerwork was the essence of the wall.²¹³

Therefore, inasmuch as the motif of the wall is the key link contributed to Semper's map of development of primary architectural elements, and the original enclosure derived from the primitive fence woven by branches and grass, architecture, therefore, as it originated from the practical art, coincided with those of weaving - the textile art.²¹⁴

3.1.2 Frieze in Classical Architecture

Based on the understanding of the origins of architecture in relation to the techniques

²⁰⁸ *ibid.*, p. 14.

²⁰⁹ *ibid.*, p. 14.

²¹⁰ *ibid.*, p. 15.

²¹¹ Semper, *The Four Elements of Architecture and Other Writings*, pp. 215-226.

²¹² *ibid.*, pp. 103-104.

²¹³ *ibid.*, p. 103.

²¹⁴ Rykwert, Joseph. *On Adam's House in Paradise: The Idea of the Primitive Hut in Architectural History*, Cambridge, Massachusetts: The MIT Press Cambridge, 1995, p. 30.

of weaving, the location, function and meanings of the frieze in relation to each Classical order are now discussed. It is acknowledged that Classical architecture comprises of five primary orders; the Doric, the Ionic, the Tuscan, the Corinthian, and the Composite. Despite the fact that each order symbolises different meanings, they possess the same system of architectural composition: base; shaft; capitals; and entablature, from the bottom to the top (figure 3.2).

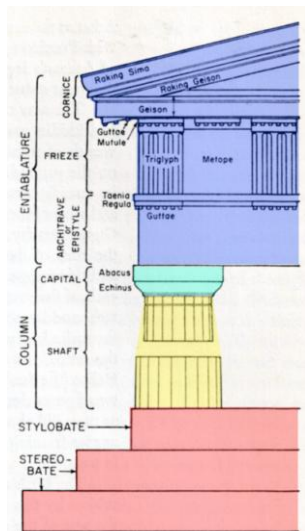


Figure 3.1 The Doric Order - red: base; yellow: shaft; cyan: capital; blue: entablature. (Source: Robertson, M. *The Parthenon Frieze*, 1975, p. 7, edited by researcher)

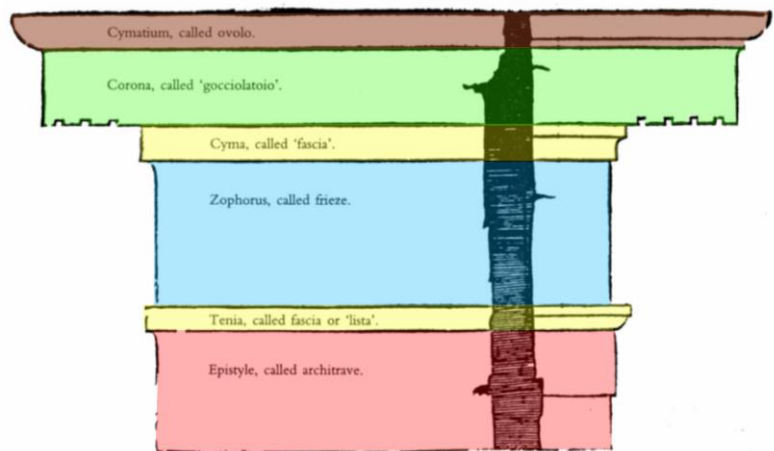


Figure 3.2 Composition of Entablature - red: architrave; yellow: fascia; blue: frieze; green: cornice; brown: cymatium. (Source: Serlio, S. et al. *Sebastiano Serlio on architecture*, 1996, p. 258, edited by researcher)

The top section of the order, which is entitled the ‘entablature’, is the section where the frieze settles. According to Sebastiano Serlio, the entablature is composed of six main parts: architrave; fascia; frieze; fascia; cornice, and cymatium respectively, from bottom to top. The architrave was originally called the *epistylum* by Vitruvius, which was literally translated as ‘above column’.²¹⁵ The function of the architrave, as Vitruvius suggested, is to incorporate the main beam that spans between columns and supports the roof. The frieze, situated in the middle of the entablature, also functioned

²¹⁵ Thomas, G. Smith. *Vitruvius on architecture*, New York: The Monacelli Press, Inc, 2003, p. 30.

as a beam. The horizontal cornice functioned as a decorative section, and the raking cornice protected the wall from rainwater. The fascias are the fillets that bound the structure together.

With reference to Joseph Rykwert, frieze is the modern name for the middle section of the entablature, derived from ‘a corruption of the Latin *phrygiones* that refers to an embroidered dress or just an embroidered hem which was imitating the kind of work the women of Phrygia in Central Anatolia were considered particularly good at’.²¹⁶ Moving from Latin to Italian, frieze means to decorate.²¹⁷ Appearing in architecture in the sixteenth century, the antique technical term for a frieze was *zōphoros*, which was transliterated from Greek to Latin and carried animals and figures.²¹⁸

Functioning as a beam, for Vitruvius, the heights of the friezes vary according to the representations they contain. For a frieze that has figures on it, the height of the frieze is one-fourth higher than the architrave so that the sculpture could carry more authority. For the frieze which has no figure on it, the height of the frieze is one-fourth lower than the architrave. The content or representation of the frieze in the five orders varies. The Doric frieze (figure 3.3) consists of triglyphs and metopes. Triglyphs are ‘the slight projections at intervals, on which are cut three angular flutes’.²¹⁹ Metopes are the ‘intervals between triglyphs which are frequently enriched with sculptures’.²²⁰ The Ionic frieze is a continuous band that is ‘occasionally enriched with sculptures, and is sometimes made to swell out in the middle when it is said to be cushioned or pulvinated’.²²¹ The Tuscan frieze is normally plain. Finally, Corinthian and Composite friezes are ‘ornamented in a variety of ways but usually either with figures or foliage’.²²²

²¹⁶ Rykwert, Joseph. *The Dancing Column: On Order in Architecture*, Massachusetts: The MIT Press Cambridge, 1996, p. 182.

²¹⁷ *ibid.*, p. 182.

²¹⁸ *ibid.*, p. 182.

²¹⁹ Parker, H. John. *Classic Dictionary of Architecture: A concise glossary of terms used in Grecian, Roman, Italian, and Gothic architecture*, revised 4th ed. New York: New Orchard Editions, 1986, p. 120.

²²⁰ *ibid.*, p. 120.

²²¹ *ibid.*, p. 120.

²²² *ibid.*, p. 120.

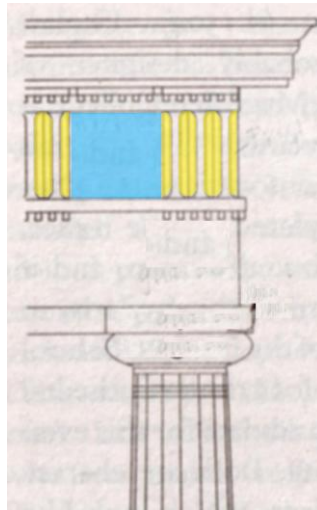


Figure 3.3 The Doric Frieze - yellow: triglyphs; blue: metopes (Source: Fleming H. P. *The Penguin Dictionary of Architecture and Landscape Architecture*, 1991, p. 412, edited by researcher)

3.1.3 Weaving the Panathenaia Peplos: The Frieze as Textile-Storytelling Device in Ancient Greece

With reference to Semper, the wall, as one of the four primary architectural elements, originated from the techniques of weaving, and the meanings of the frieze in classical architecture is to decorate. Thus, how could the frieze be woven as in textile-storytelling?

In Classical Greece, spinning and weaving occupied most women's daily time.²²³ Differing from the duty of the male to be social and competitive, Greek women - particularly married women - stayed at home taking care of the children and other household work, as well as spinning and weaving. In addition to dedicating themselves to preparing textiles and household work, Greek women prepared food and cloth for the Gods as well. For instance, the Goddess Athena's peplos was traditionally woven by 'young women selected from the upper-class Athenian families'.²²⁴ During that time, weaving could be considered as a 'close connection between women, cloth and

²²³ Barber, E.J.W. *The Peplos of Athena*, in: Neils, Jenifer, *Goddess and polis: the Panathenaic Festival in ancient Athens*, New Jersey: Princeton University Press, 1992, p. 104.

²²⁴ *ibid.* p. 105.

clothing’.²²⁵

In regard to the activity of weaving, the two main fibres of cloth-making at the time in Classical Greece were flax and wool, of which wool was more commonly used because sheep were easy to keep and to be grazed anywhere in Greece; however flax generally required richer soil to grow.²²⁶ Besides, it was easy to dye wool into various colours, and it offered great warmth for people in winter times. Historical evidence indicates that ‘in ancient times wool was invariably combed so the fibres could lay parallel in order to make the so-called “worsted” thread’.²²⁷ Most of the ancient and prehistoric representations of weaving indicated that weaving was a communal activity which needed to be processed by at least two or more women.²²⁸ The whole process of cleaning, combing and spinning the wool usually took ‘approximately one month for one person to clean, combing and spin the wool for a peplos’.²²⁹

In ancient times, every year the Athenians held a festival of expression of their gratitude to the Goddess Athena, the patroness of their city, and every four years Athenians would hold a ‘particular large version of the festival which was named the Great Panathenaia’.²³⁰ With many activities included, one of the central features of the Panathenaia festival was the dedication to the statue of Goddess Athena of a specially woven, rectangular woollen tapestry. Called the Panathenaia peplos, the woollen tapestry was always decorated with the ‘figures of Athena and Zeus leading the Olympian Gods to the victory in the epic Battle of the Gods and the Giants’.²³¹ Usually nine months before the Great Panathenaia, four girls, perhaps between the ages of seven and eleven, would be selected from aristocratic Athenian families to live on the Acropolis for one year to weave the peplos which was to be presented to the

²²⁵ *ibid.* p. 105.

²²⁶ *ibid.* p. 106.

²²⁷ *ibid.* p. 108.

²²⁸ *ibid.* p. 108.

²²⁹ *ibid.* p. 110.

²³⁰ *ibid.* p. 112.

²³¹ *ibid.* p. 112.

Goddess Athena during the Great Panathenaia festival.²³²

According to John Mansfield's research, there are two types of Panathenaia peplos.²³³ The one made for the Panathenaia festival every year in the traditional way was woven by women, while the one made for the four-year Panathenaia festival was woven by men. The differences between these two types of peplos not only lay in the gender of those who made them, but in their periodicity, size, purpose, and means of display.²³⁴ The one-year-type peplos, which was usually woven none months before the Panathenaia, was destined to cover the statue of the Goddess Athena on the Acropolis. The four-year-type peplos was, however, displayed during the Great Panathenaia festival 'like a sail on the mast of a ship placed on wheels and drawn through the city like a float'.²³⁵ Because the sail-size peplos was too large for the statue of the Goddess and the traditional peplos-weaving was considered as the women's special offering to their Goddess, Mansfield further concluded that there were perhaps 'not one but two peplos woven for the four year Panathenaia and only one - the traditional one - for the years in between'.²³⁶

There are two design forms of the Panathenaia peplos. One comprised of 'successive scenes in a series of continuous horizontal friezes going the entire width of the cloth'.²³⁷ The one is 'square panels in a ladder-like arrangement of a dozen small picture-boxes going down the front of the garment'.²³⁸ It is not too important to determine which design was used, but rather to appreciate that sometimes one form has been chosen and sometimes the other.²³⁹ 'Frieze clothing is widely attested and is represented among artefacts found on the Acropolis'.²⁴⁰ The peplos with the representation of a continuous horizontal story-frieze of human and animal figures was

²³² *ibid.* p. 113.

²³³ Mansfield, John. *The Robe of Athena and the Panathenaic Peplos*, Ph.D. thesis, University of California at Berkeley, 1985.

²³⁴ *ibid.* p. 113.

²³⁵ *ibid.* p. 114.

²³⁶ *ibid.* p. 114.

²³⁷ *ibid.* p. 115.

²³⁸ *ibid.* p. 115.

²³⁹ *ibid.* p. 116.

²⁴⁰ *ibid.* p. 116.

very commonly worn by ancient Greek princesses and goddesses as a fashion style (figure 3.4).²⁴¹ The ladder-like frieze representation of the peplos was however rather less commonly worn by women (figure 3.5). The peplos with horizontal friezes running the width of the cloth and covering the whole textile was much more time consuming and expensive to produce,²⁴² and the peplos with ladder-like friezes was less expensive and could be woven quickly and mechanically.²⁴³



Figure 3.4 Horizontal style of the Frieze (Source: Neils, J. *Goddess and polis: the Panathenaic Festival in ancient Athens*, 1992, p. 115.)



Figure 3.5 Ladder-like Frieze (Source: Neils, J. *Goddess and polis: the Panathenaic Festival in ancient Athens*, 1992, p. 115.)

Even though there are some differences between these two forms of frieze representation, the weaving technology of ‘both the ladder-frieze panels and horizontal friezes would be much the same’.²⁴⁴ Besides, considerable evidence indicated that these heirloom textiles were stored in the temples for long periods of time so that they

²⁴¹ *ibid.* p. 115.

²⁴² *ibid.* p. 116.

²⁴³ *ibid.* p. 116.

²⁴⁴ *ibid.* p. 116.

could ‘stimulate the weaver’s imaginations when they had more sources to apply to so central a ritual artefact as the dress of their patron deity’.²⁴⁵

Regardless of which forms of friezes were selected for weaving the peplos, the final presentation of the peplos was ‘saffron and hyacinth-coloured’.²⁴⁶ Unlike most natural dyes, ‘an outstanding virtue of sea-purple, aside from its intrinsic beauty, was that it was colourfast as was saffron to both water and prolonged exposure to light’.²⁴⁷ The peplos would be exposed to light on a daily basis for an entire year.²⁴⁸ The dominant colour on the peplos, however, was saffron-yellow, which was the colour associated throughout Greek mythology and ritual with women.²⁴⁹

To summarise, ‘the entire ritual of presenting Athena with an ornate new dress was a local relic of the Bronze Age’.²⁵⁰ By means of the representation of friezes of the Panathenaia peplos, both the horizontal and ladder-like, the activity of weaving ritually occupied an integral place in the lives of the Athenian citizens, most particularly those of the women. Therefore, the frieze not only functioned as a decorative section on five orders of classical architecture, but was also positioned as an important style of textile-storytelling in ancient Greece, especially the Panathenaia peplos. Based on the above discussion, how did the frieze come to be considered as spatial-storytelling on architecture? This question is addressed in the next section.

3.2 Weaving the Panathenaia: Ionic Frieze on the Parthenon Temple as Spatial-Storytelling

Although a brief reference was made to the Panathenaia festival in the previous section, while the Panathenaia peplos was instantiated in order to introduce the weaving technology of the frieze as textile-storytelling, in this section, the Panathenaia festival

²⁴⁵ *ibid.* p. 116.

²⁴⁶ *ibid.* p. 116.

²⁴⁷ *ibid.* p. 116.

²⁴⁸ *ibid.* p. 116.

²⁴⁹ *ibid.* p. 116.

²⁵⁰ *ibid.* p. 117.

will be referred to again in order to set out the background knowledge of the Acropolis and the Parthenon Temple, especially the Ionic Frieze. Recalling that the frieze functioned on five classical orders, we refer here to the Ionic Frieze in order to identify the continuous style of the frieze on Ionic temples and the Parthenon Temple. Before carrying out the discussions on the Parthenon Temple which could be regarded as a particular medium of spatial-storytelling for the Ionic Frieze, background knowledge on the Parthenon Temple will firstly be introduced in detail in 3.2.1 with aspects of the Acropolis site, the building of the Parthenon Temple, the Parthenon sculptures and later transformations of the Temple. This writing on the history of the Temple lays a good foundation for the understanding of the later discussions, such as issues of the Parthenon Temple as a spatial-storytelling of the Ionic Frieze in 3.2.2, the acquisitions of the Parthenon sculptures in Chapter Four and various interpretations of the Ionic Frieze in the case studies chapters.

3.2.1 The Parthenon Temple from a Historic View

The Parthenon Temple is situated on the Acropolis, ‘a rocky and naturally fortified hill in the middle of the Attica basin, with an almost flat summit and springs of water on its slopes’.²⁵¹ 165 metres high, the Acropolis ‘was a refuge for the prehistoric inhabitants of the surrounding region as well as a locus of more permanent settlements’.²⁵² The best known monuments on the Acropolis were built in the second half of the fifth century BC, a time of prosperity of Athens.²⁵³

Around 450 BC, Greece reached the peak of its power when the Persians were no longer a threat. Pericles, who was the leader of the Athenians, wanted to rebuild the temples which were destroyed by the Persians on the Acropolis, to make the city appear more powerful. The first and the most ambitious of these projects was a new Parthenon for Athena, which was constructed on the site of the half-built Old

²⁵¹ Choremi, Alkistis. *The Sculptures of the Parthenon: Acropolis, British Museum, Louvre*, Athens: Ephesus, 2004, p. 15.

²⁵² *ibid.*, p. 15.

²⁵³ *ibid.*, p. 16.

Parthenon (447-438 BC). It was said that the Parthenon Temple was to be the work of the whole city. All the citizens, foreign workers and slaves took part in the actual building work. Later projects followed; the Propylaea (438-432 BC), the Temple of Athena Nike (421 BC) and the Erechtheion (406 BC).

Unlike a church or mosque, a Greek temple was not normally designed for a congregation.²⁵⁴ Primarily intended to shelter the image of the divinity to whom it was dedicated, a temple also functioned to secure the property of the divinity, such as the sacred or precious vessels used in her cult, or the votive offerings brought by her worshippers.²⁵⁵ The Erechtheion, the holiest temple on the Acropolis, was the home of the ancient olive wood statue of Athena and a shrine to several gods and early kings. The Parthenon, without exception, was the place to the statue of Athena. Besides, the Parthenon was ‘in itself a votive offering which was made in gratitude for past benefit or for the favours yet to come’.²⁵⁶

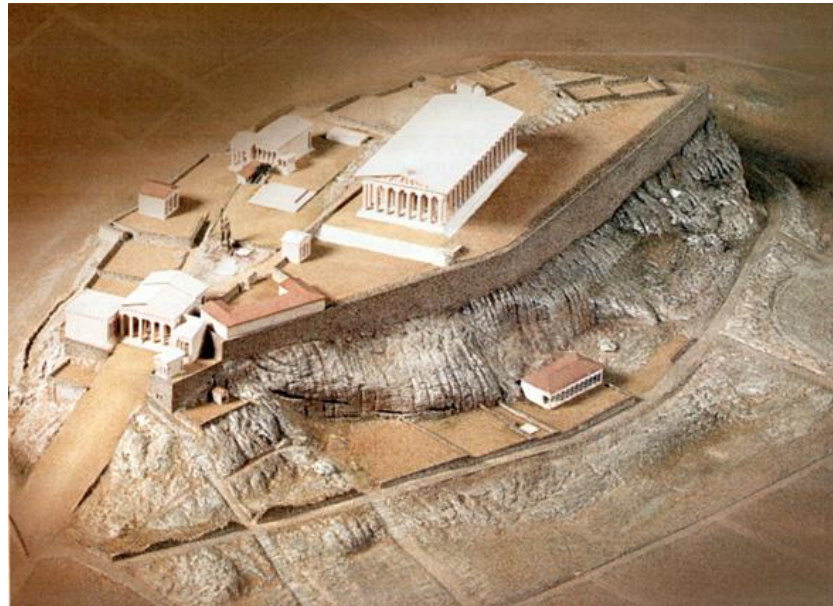


Figure 3.6 Model of Acropolis with the monument of the Classical period (Source: Choremi, A. *The Sculptures of the Parthenon: Acropolis, British Museum, Louvre*, 2004, p. 17.)

²⁵⁴ Corbett, E. Peter. *The Sculpture of the Parthenon*, England: The King Penguin Books, 1959, p. 7.

²⁵⁵ *ibid.*, p. 7.

²⁵⁶ *ibid.*, p. 8.

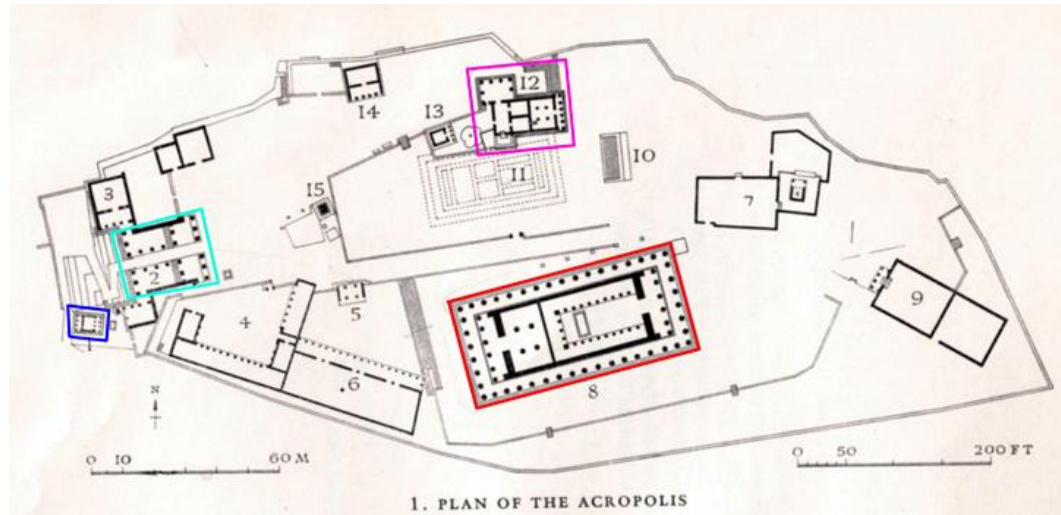


Figure 3.7 Plan of the Acropolis - blue: The Temple of Athena Nike; cyan: Propylaea; purple: Erectheion; red: Periclean's Parthenon. (Source: Corbett, E. P. *The Sculpture of the Parthenon*, 1959, p. 6, edited by researcher)

The earliest Greek temples were usually made of wood. When the Greeks started to use stone to build temples around 700 BC, they copied many features of wooden buildings. There were two main types of temples developed in ancient Greece. One is the Doric temple, which encapsulates the beauty of the male: simple but stronger. The other is the Ionic temple, which was more decorative, and reflects the beauty of the female: gentle and graceful. Both styles were used on the temples on the Acropolis.

Designed by architects Ictinus and Callicrates, the intention of the architects to build the Parthenon was not to produce a new type of building, but to make the most perfect Doric temple possible.²⁵⁷ Even though the Parthenon Temple is a Doric temple, it nevertheless has many Ionic features. In Greek architecture, the Doric temple is usually built in limestone, sandstone or tuff; however, the Ionic temple is usually constructed in marble. The Doric temple always had six frontal columns on the colonnaded space, while the colonnaded space of the Ionic temple always had eight frontal columns. The single feature shared by these two types was their wooden structure of the roof.²⁵⁸ Many of these Ionic features were adopted in the design of the

²⁵⁷ Chrisp, Peter. *The Parthenon: how it was built and how it was used*, England: The Creative Publishing Company, 1979, p. 22.

²⁵⁸ Korres, Manolis. The Architecture of the Parthenon, in: Tournkiotis, Panayotis, *The Parthenon and Its Impact in*

Parthenon. The Parthenon was one of the few Greek temples made completely of marble. All the marble came from a quarry on Mount Pentelicus, located 16 kilometres away, northeast of Athens. Building the Parthenon used 22,000 tons of marble. The marble blocks were cut by hand and lowered down the mountainside, and were taken to Athens on carts pulled by teams of oxen. Arriving at the Acropolis, the marble was cut into blocks. The rectangular blocks were used in the walls, and the drum-shaped blocks were used in the columns. The wall blocks were fixed with iron clamps, wrapped in lead to stop them rusting.²⁵⁹ The drums were settled by a pin set in a hole in the centre.²⁶⁰ There were 11 drums in each column.

Two sets of scaffolding were used during the construction process: one was used for building the wall; the other was used for building the column (figure 3.8). Once the oxen moved the blocks into the site, workers used the installation to hoist the blocks into space. Even though there were eleven drums in each column, each drum would be cut back once it was set at the proper location on the Temple. Through such action, each column could look like a single piece of marble.

Modern Times, New York: Harry N. Abrams, Incorporated, 1994, p. 84.

²⁵⁹ Chrisp. *The Parthenon*, p. 22.

²⁶⁰ *ibid.*, p. 22.

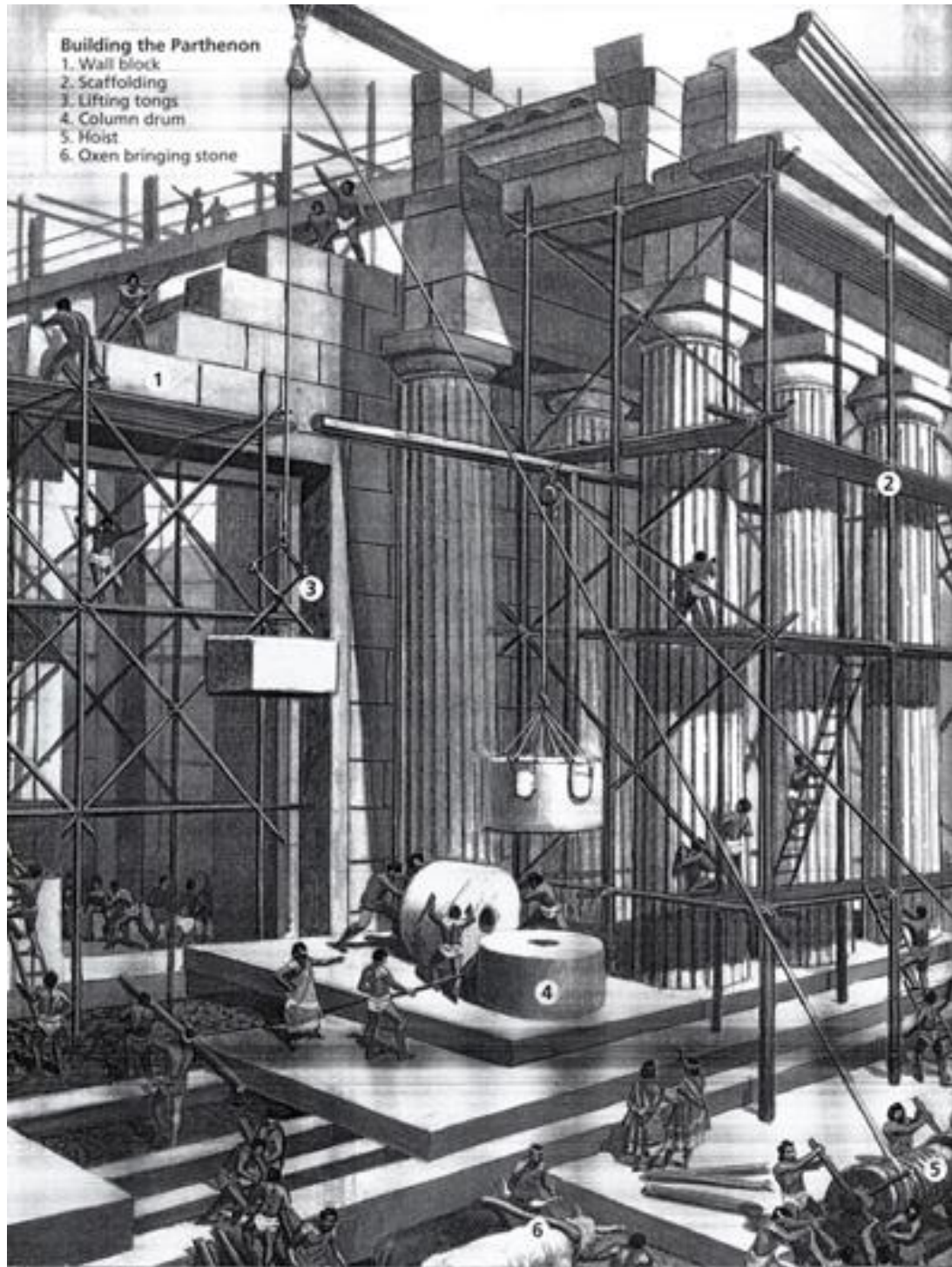


Figure 3.8 Building the Parthenon - 1.Wall block 2.Scaffolding 3.Lifting tongs 4.Column drum 5.Hoist 6.Oxen bring stone. (Source: Chrisp, P. *The Parthenon: how it was built and how it was used*, 1979, p. 23.)

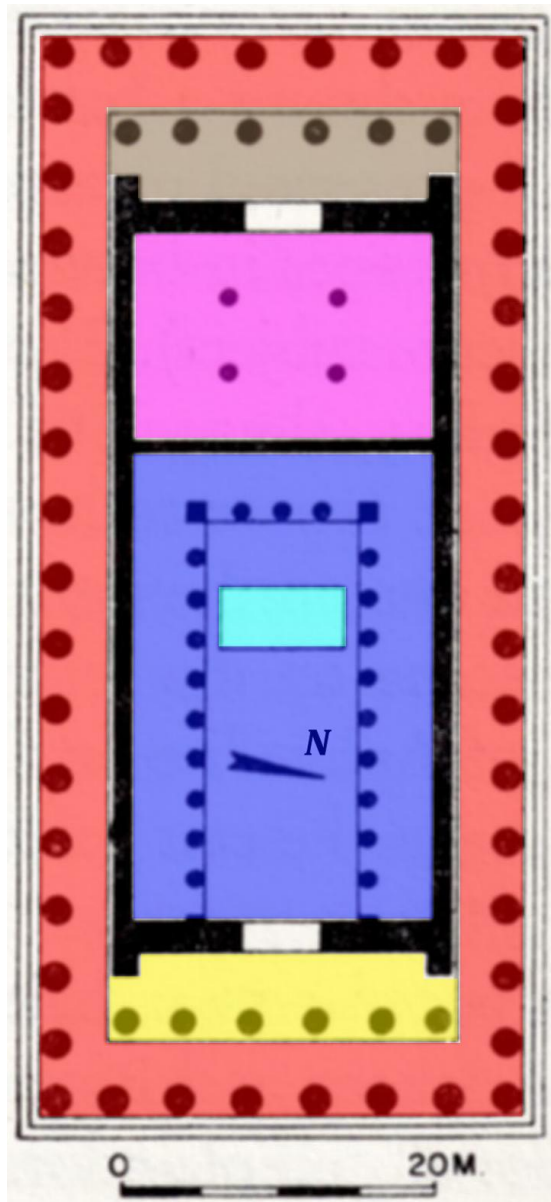


Figure 3.9 Plan of the Parthenon - red: Colonnaded Space; yellow: pronaos; blue: naos; purple: maid chamber; brown: episthodomos; cyan: Statue of Athena. (Source: Robertson, M. *The Parthenon Frieze*, 1975, p. 7, edited by researcher)

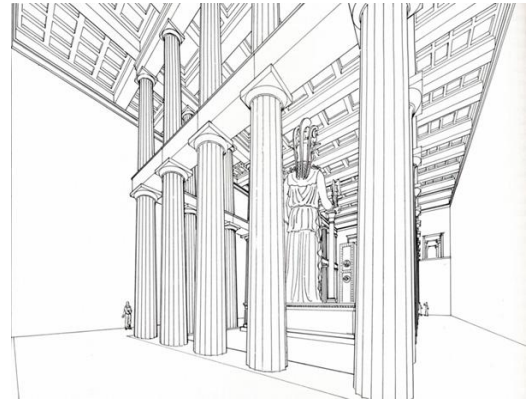


Figure 3.10 A perspective reconstruction of the interior of the Temple, with the statue of Athena Parthenos (Source: Tournikiotis, P. *The Parthenon and Its Impact in Modern Times*, 1994, p. 92.)

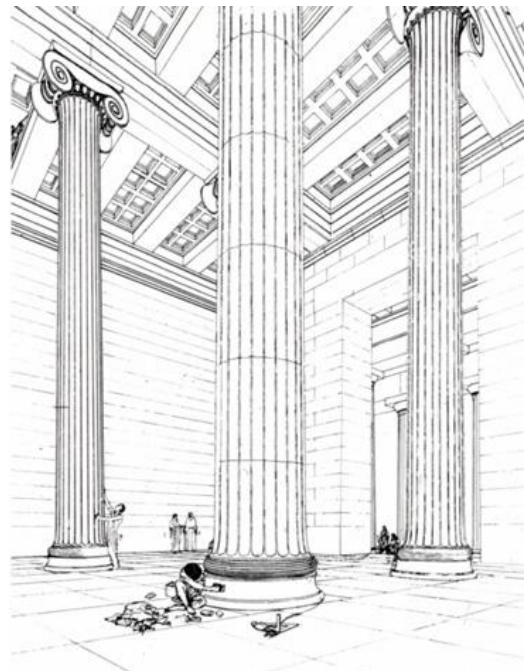


Figure 3.11 Reconstruction of the west chamber of the Parthenon (Source: Tournikiotis, P. *The Parthenon and Its Impact in Modern Times*, 1994, p. 64.)

The Parthenon Temple consists of two main parts: the portico, which is the colonnaded space, and the cella space several steps above (figure 3.9). The cella was divided into four parts: to the east, the columned space called the pronaos leading to the naos, where the chryselephantine statue of Athena was located; and to the west, the

columned space called the opisthodomos leading to the maiden's chamber, which gave the name Parthenon to the Temple as a whole.

The statue of Athena was made by Phidias, one of the greatest of all the Classical Greek sculptors. About 12 metres high, the statue was made of wood covered with precious materials. The Goddess' face, more than two metres high, was made out of hundreds of tiny ivory strips. The skin of her body was made of ivory, using elephant tusks brought by sea from Egypt.²⁶¹ Her clothing and armour were made of gold. Her shield and sandals were covered with pictures of legendary battle scenes. The statue was placed in the naos, facing the east. In order to prevent the ivory from cracking in the dry air, there was a shallow pool in front of the Goddess to maintain the humidity of the interior air.

The Parthenon Temple is constructed on a rectangular stylobate (figure 3.9). The size of the Temple was measured at 69,480 millimetres on the long side, and 30,870 millimetres along the short side. The height of the Temple is 13,720 millimetres. There are 46 Doric columns in total along the four sides of the Temple. The Temple was the first Doric temple to make use of octastyle; eight columns along its short side. As discussed above, the Doric temple usually adopts hexastyle; six columns along its short side, and the octastyle is the key feature of the Ionic temples. Consisting of 11 drums vertically, each column is 10,430 millimetres high. The diameter of each column is 1,190 millimetres. There were six Doric columns on each short side of the cella as well. Inside the naos, the double-storey columns, with a height of 13,500 millimetres, ran along at the back of the statue. The lower columns consisted of drums, and the upper ones were monolithic. Inside the west chamber, there were four Ionic columns with the height of 12,500 millimetres. Even though the Temple was made of marble, wooden structure was adopted in some parts of the building. The ceiling of the portico, the pronaos and the opisthodomos were marble, consisting of beams and

²⁶¹ Crisp. *The Parthenon*, p. 25.

coffered panels.²⁶² The ceiling of the cella was marble, consisting of a structure of heavy beams and coffered panels.²⁶³

In addition to the significant architectural combination of Ionic features on the Doric temple, what makes the Parthenon Temple distinctive was the unusual richness of its sculptural ornamentation (figure 3.12). As well as creating the giant statue of Athena, Phidias was in charge of the Parthenon sculptures. It is commonly known that the Parthenon sculptures consist of three parts: the Ionic Frieze, the metopes and the pediments. However, the sculptural decorations of the Parthenon Temple actually consist of five levels: the metopes were positioned on the exterior colonnades as the lowest level; the Ionic Frieze positioned on the upper section of the Parthenon cella, which was behind the metopes, is higher; the level above the metopes is the cornice carved as lion-heads; the level of the pediments; and the highest level of flora akroteria.²⁶⁴

The Parthenon was the only Doric temple to have carved scenes on 92 blocks of metopes. Carved in high relief, the metopes' position on the outer colonnade presented the scenes of battles among the Goddesses of Greek mythology. The Ionic Frieze ran along the cella as a continuous ribbon, which was 160,000 millimetres in length. The frieze, characteristic of the Ionic style, started at the southwest point of the inner space of the building, progressed along two routes, and met at the midpoint of the east side of the cella. Before being put onto the Temple, the sculptures on the pediments were carved in the round, and they were previously displayed in the art shops where they were originally made by the artists. The themes of the pediments presented the scenes drawn from the Greek mythology associated with Athena.

²⁶² Tournkiotis. *The Parthenon and Its Impact in Modern Times*, p. 65.

²⁶³ *ibid.*, p. 65.

²⁶⁴ *ibid.*, p. 7.



Figure 3.12 Reconstruction of the east façade of the Parthenon, which presents levels of sculptures - blue: akroteria (highest level); yellow: pediment; white: cornice - lion head; red: metope. (Source: Tournikiotis, P. *The Parthenon and Its Impact in Modern Times*, 1994, p. 261, edited by researcher)

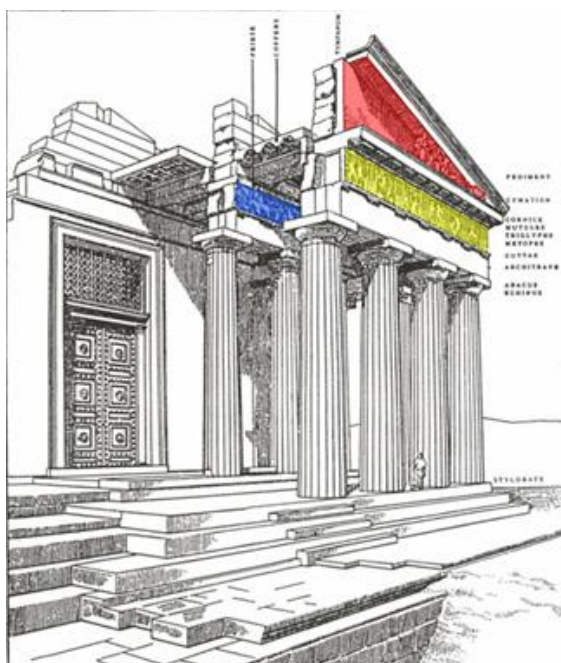


Figure 3.13 Perspective section of east side of the Parthenon - red: pediment; yellow:metope; blue: Ionic frieze. (Source: Tournikiotis, P. *The Parthenon and Its Impact in Modern Times*, 1994, p. 352, edited by researcher)



Figure 3.14 Reconstruction of the order of the Parthenon (Source: Tournikiotis, P. *The Parthenon and Its Impact in Modern Times*, 1994, p. 275.)

Regarded as the votive offering dedicated to the Goddess Athena, the Parthenon Temple however did not hold the statue of the Goddess permanently. In 338 BC, King Philip of Macedon broke the Athenian's peace. In 146 BC, the Romans arrived, and Greece then became part of the Roman Empire. Nothing changed until the fourth century AD, when Christianity became the official religion of the Roman Empire. Regarded as devils, the Athenian gods were destroyed by the Romans. With reference to Chrisp, in 450 AD, the Parthenon was turned into a church, dedicated at first to 'Holy Wisdom' and then to the Virgin Mary, mother of the Christ. It was once the fourth most important pilgrimage site in the Eastern Roman Empire after Constantinople, Ephessos and Thessalonica. Unlike a temple, a church was used for group worship. The religious ceremonies took place inside by an altar, rather than in the open air. The eastern naos and the western chamber were knocked into one room to hold the worshippers. According to Chrisp, an apse was added at the eastern end, a curved extension to house the Christian altar.²⁶⁵ The interior was richly decorated with religious painting. The ceiling was a mosaic picture showing the Virgin Mary. In the Middle Ages, Athens was passed from the Romans to the French, the Spanish, and the Italians. These people were all Christian. Therefore, the Parthenon continued to serve as a church for a thousand years.

Everything changed in 1458 when the Turks invaded Athens. The Parthenon was converted into a mosque because the Turks were Muslim. They removed all the interior paintings relating to Christianity. They add a minaret outside the temple, a tall tower from which the call to prayer was made. The Turks also built several small houses around the temples on the Acropolis. By the 1600s, wealthy European travellers went to Athens to visit the Parthenon and other great buildings for the first time. According to Chrisp, most of the sculptures were well preserved.²⁶⁶

In September 1687, Athens was besieged by the Venetians, who wanted to drive out

²⁶⁵ Chrisp. *The Parthenon*, p. 32.

²⁶⁶ *ibid.*, p. 35.

the Turks and conquer the country themselves. The Turks believed that the Venetians would not fire on the famous temples and the sculptures on the Acropolis site. Therefore, they set their gunpowder inside the Parthenon and built shelters for women and children around the site. The Venetian Doge, Francesco Morosini, found the location of the gunpowder, and ordered his men to fire at the Parthenon. On the evening of 26 September that year, the whole city of Athens was shaken by a deafening explosion. The Parthenon, which had survived for over 2000 years on the sacred Acropolis, was in ruins. The Venetians held on to Athens for less than seven months before they abandoned the city. The Turks returned to Athens after the Venetians left, to find the Parthenon in ruins, so it could no longer be used as a mosque. Therefore, they took stones from the temple to build a small mosque inside.

Standing alone on the Acropolis, the Parthenon nowadays is no longer a sacred Temple but an archaeological site. Once scattered all over Europe, the main pieces of its sculptures are now in the British Museum and the New Acropolis Museum, and some fragments are in the Louvre Museum of Paris, the Vatican Museums of Rome, the Kunsthistorisches Museum of Vienna, the Glyptothek of Munich, the Heidelberg University's Museum, and the Palermo Museum in Italy. The acquisitions of the Elgin Marbles of the Parthenon sculptures will be discussed in Chapter Four.²⁶⁷

3.2.2 Medium of Spatial-Storytelling

In defining their common brotherhood with other Greeks, the citizens of the ancient polis or city-state of Athens, according to the historian Herodotus, cited their shared language and the altars and sacrifices of which we all partake - in short, their common religion.²⁶⁸

For ancient Greeks, organised religion concentrated neither on a sacred text, such as the Bible or the Qur'an, nor on comprehension of abstract dogmas of creeds, but rather 'was comprised principally of actions: rituals, festivals, processions, athletic contests,

²⁶⁷ See 4.1.1 The British Museum, pp. 120-127.

²⁶⁸ Neils. *Goddess and Polis*, p. 13.

oracles, gift-giving and animal sacrifices'.²⁶⁹ In ancient Athens, one third of the calendar year - which was approximately 120 days - was devoted to festivals.²⁷⁰ Therefore, it is not an exaggeration to say that 'festivals were the single most important feature of Classical Greek religion in its public aspect'.²⁷¹ The Panathenaia was the most important festival celebrated in ancient Greece, presumably meaning 'rites of all Athenians',²⁷² and was believed to be the 'state festival honouring the city's patron deity - Athena Polis ('of the city')'.²⁷³ Primarily the Panathenaia was held every summer, on the 28th of the month Hekatombaion which ran from July to August, a date considered to be the birthday of the goddess Athena.²⁷⁴

In 566 BC, 'on the model of the four-yearly festivals at Plypia and Delphi', the Great Panathenaia was created by Pisistratus, a tyrant of Athens from 546 to 527/8 BC.²⁷⁵ Therefore, the Panathenaia festival was extended every four years over a number of days with many public events consisting of three elements: procession, contests and sacrifices. In addition to these activities, one of the central features of the festival was the dedication of peplos to the wooden statue of the Goddess; a specially woven, rectangular woollen cloth decorated with the scenes of battles between the Gods and the Giants in Greek mythology.

The procession of the Panathenaia brought together all inhabitants of the city and suburbs - young and old, citizens and non-citizens, male and female, soldiers and civilians - to take part in the festival. The starting point of the procession was the Dipylon Gate, which means double gateway, at the north western side of the city (figure 3.15). 'The procession moved through the potter's quarter, along the straight road that led into the market place or agora'.²⁷⁶ Passing through the agora, the

²⁶⁹ *ibid.*, p. 13.

²⁷⁰ *ibid.*, p. 13.

²⁷¹ *ibid.*, p. 13.

²⁷² Robertson, Noel. *Athena's Shrines and Festivals*, in: Neils, Jenifer, ed. *Worshipping Athena: Panathenaia and Parthenon*, Wisconsin: University of Wisconsin Press, 1996, p. 57.

²⁷³ Neils. *Goddess and Polis*, p. 13.

²⁷⁴ Neils. *Worshipping Athena*, p. 8.

²⁷⁵ *ibid.*, p. 8.

²⁷⁶ Text board in the Duveen Gallery, British Museum.

procession would continue until arriving at the Acropolis; the great rock situated in the centre of the city.

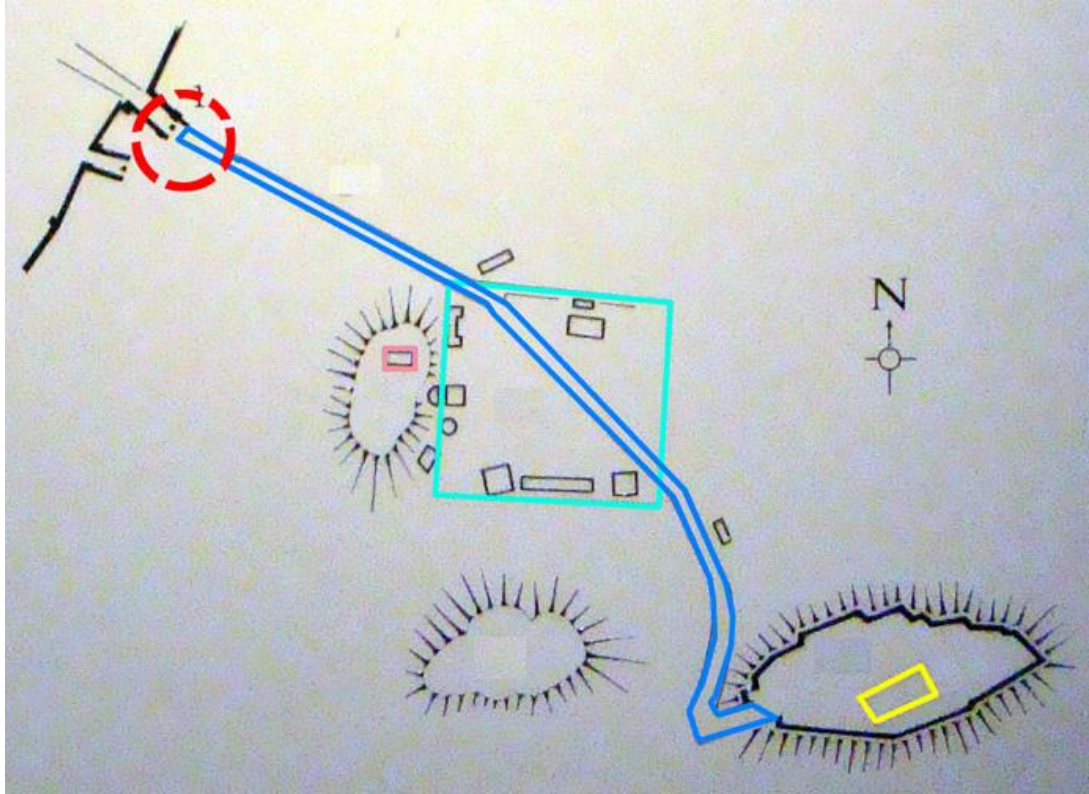


Figure 3.15 The route of the Panathenaia procession - red: Dipylon Gate; blue: Panathenaia way; pink: Temple of Hephaestus; cyan: Agora; yellow: Parthenon Temple. (Source: Text board in Duveen Gallery, British Museum, edited by researcher)

As discussed above, even though the Parthenon Temple is a Doric temple, what distinguishes it from other Doric temples is its exceptional sculptural decoration of the continuous Ionic Frieze. A continuous frieze on one face of a Greek temple is normally concerned with one single subject, but if all the faces of the temple are decorated with sculptures, the subjects of different faces are often independent and unconnected.²⁷⁷ ‘Such a design, developed over all sides through figures of different kinds variously engaged but all united in one purpose, is found in the Parthenon frieze, and it has no parallel’.²⁷⁸ Ionic Frieze was carved on the upper section of the four side walls of the

²⁷⁷ Robertson. *The Parthenon Frieze*, p. 7.

²⁷⁸ *ibid.*, p. 7.

Parthenon cella. It was positioned 12 metres above the base. Different from the pediments which were carved in workshops independently, and some of the metopes as separated single blocks which could be carved on the ground, the Ionic Frieze was carved directly onto the wall. Since there are four faces of the Parthenon cella, the Ionic Frieze naturally has four sequences; the north, the south, the west and the east. Consisting of 115 single slabs, the total length of the Ionic Frieze is 160,000 millimetres. At 1,000 millimetres high, the Ionic Frieze is carved in low relief at six millimetres thick above the surface of the wall. The background of the slabs is of a deep blue colour, and the style of the relief is in rich colours and with metal attachments.

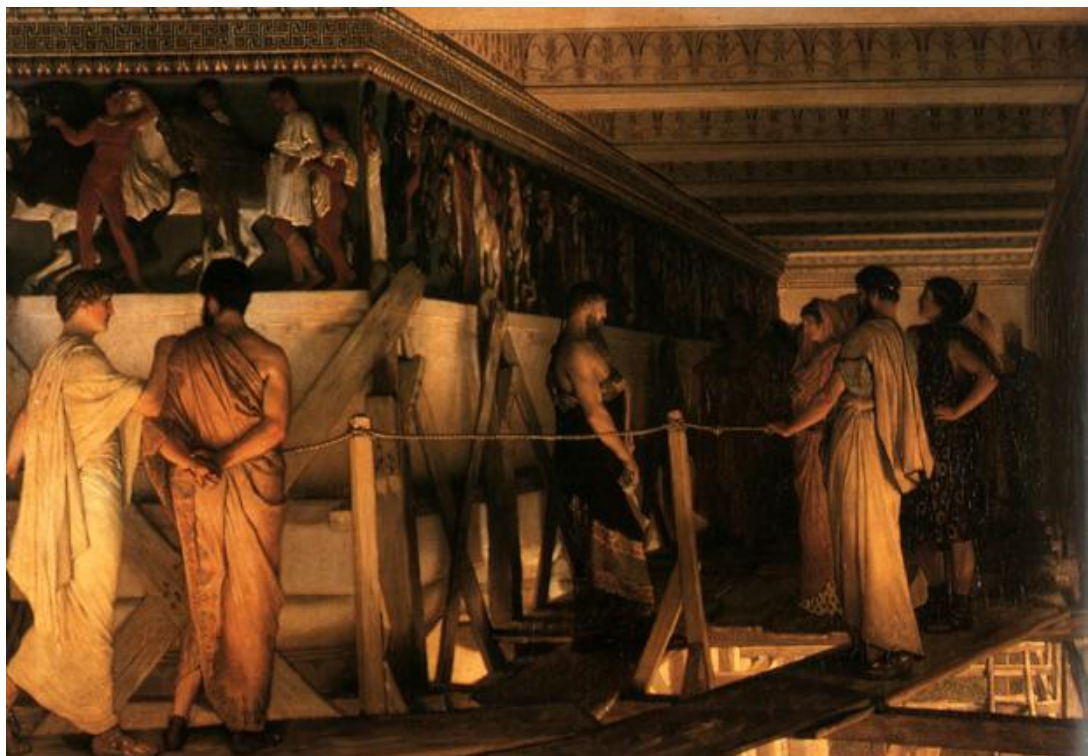


Figure 3.16 Phidias and the Parthenon (Source: Tournikiotis, P. *The Parthenon and Its Impact in Modern Times*, 1994, p. 236.)

According to its subject and sequence, the Panathenaia procession is divided into four parts (figure 3.17). Started at the southwest point of the inner space of the building, the progression followed two routes; one along the south side, and the other one along the

west and the north side, meeting at the midpoint of the east side of the cella. The west Ionic Frieze is regarded as the preparation of the procession occupied with scenes of ‘long rows of knights on horseback, and more of these are loosely grouped, some mounted and some preparing themselves or their beasts’.²⁷⁹ The north and the south Ionic Frieze, which are the long sides of the Parthenon cella, depict the procession moving towards the east direction, with ‘varied participating groups loosely but not mechanically balanced on north and south’.²⁸⁰ The east Ionic Frieze, which is the central and culminated face of the whole, depicts the dedication of the peplos to the Goddess. The whole procession consists of 378 mortal and immortal figures, and more than 200 animal figures. The east Ionic Frieze is the only face which contains the female figures. Besides, the representation of the east Ionic Frieze is regarded as the only case of twelve Olympian Gods and Athena together in an ancient Greek temple.

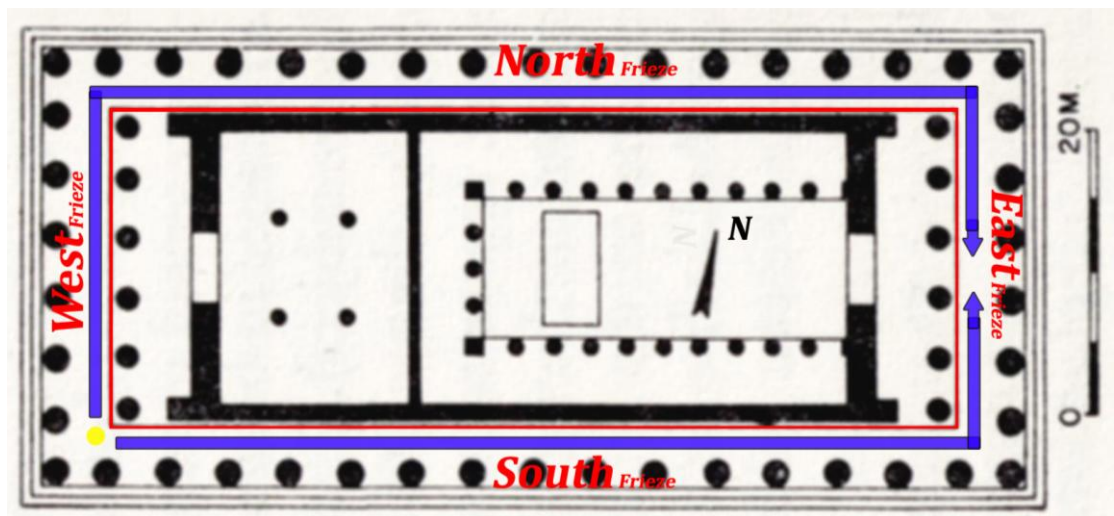


Figure 3.17 Routes of the Ionic Frieze in the Parthenon Temple - red: Ionic Frieze; yellow: starting point. (Source: Robertson, M. *The Parthenon Frieze*, 1975, p. 7, edited by researcher)

Even though the representation of the Ionic Frieze is believed to be the depiction of the procession of the Great Panathenaia festival, there are some arguments about the authenticity of the Ionic Frieze depicting the festival. ‘It is indeed difficult to decide

²⁷⁹ *ibid.*, p. 7.

²⁸⁰ *ibid.*, p. 7.

how far the frieze can be regarded as true to life; though the general character and many of the details tally with ancient statements about the Panathenaic procession and so support the identification of the subject, the agreement is not complete'.²⁸¹ Some details are confirmed by historical accounts; 'the most striking instance is the absence of the citizen infantry in fully armour'.²⁸² Figures of actors dominate the whole representation of the Ionic Frieze - mortals, immortals and animals - rather than the setting of the festival. Such expression was usually adopted in Greek art of that time. Therefore, many settings of the authentic festival need to be speculated on by the viewer themselves.²⁸³ The numbers of cavalry and chariots, which are depicted on the south part of the Ionic Frieze, are considered as the 'individual artist's interpretation rather than the reproduction of the event', due to the limited space on the Ionic Frieze in front of the west side of the temple.²⁸⁴ In addition, the sequence of the Ionic Frieze, which mirrors the order of the procession starting from the secular display of cavalry and chariots, to the dedicated animal victims, then to the gods, more or less indicates that the progression of depiction is intentionally designed.²⁸⁵

Hence, all these arguments prompt the belief that 'although the frieze is based on actuality, the whole subject and its various components have been shaped and remoulded into harmony by a powerful and sensitive mind'.²⁸⁶ In other words, the Panathenaia festival is mediated by the Ionic Frieze. The Ionic Frieze is a mediation of the Panathenaia festival by ancient Greek artists through marble as a visual-storytelling. Made of marble and carved on the exterior walls of the Parthenon cella, distinguished from the Panathenaia festival being recorded by verbal-storytelling or written-storytelling, the Ionic Frieze on the Parthenon Temple 'gives us rather an ideal embodiment of a recurrent festival'.²⁸⁷ Hence, the frieze, as a device of depicting significant events by humans, transforms from its original material of textile to the

²⁸¹ Corbett. *The Sculptures of the Parthenon*. p. 22.

²⁸² *ibid.*, p. 22.

²⁸³ *ibid.*, p. 22.

²⁸⁴ *ibid.*, p. 22.

²⁸⁵ *ibid.*, p. 22.

²⁸⁶ *ibid.*, p. 23.

²⁸⁷ Neils. *Worshipping Athena*, p. 11.

material of marble. What is more, the Ionic Frieze is not merely a visual-storytelling device but also a part of the Parthenon cella. Therefore, the Panathenaia festival is depicted on the Ionic Frieze as well as in the space. If the Ionic Frieze could be considered as the tangible medium to depict the festival, let us continue to see how space, as an intangible medium, depicts the festival.

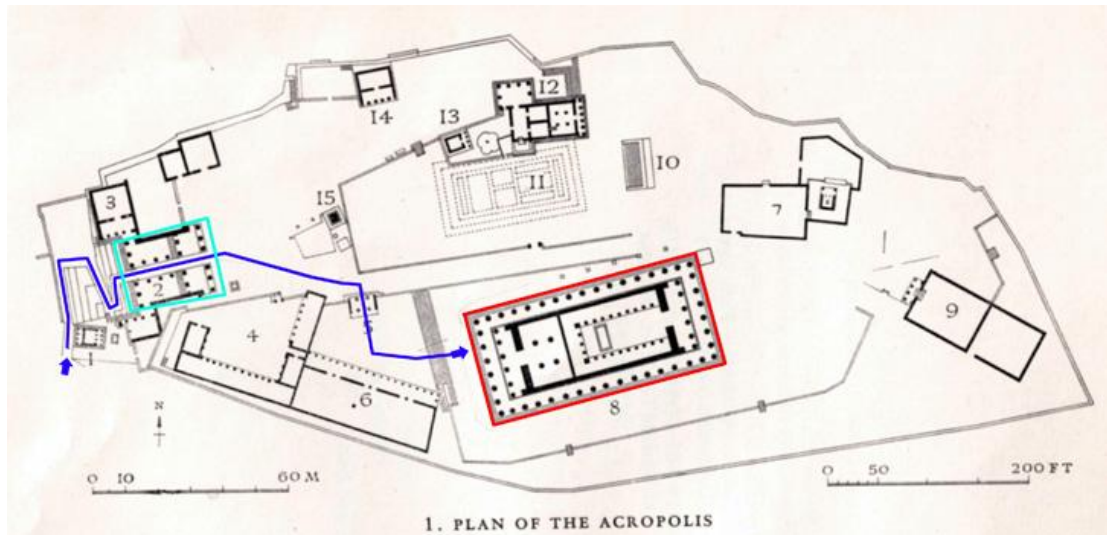


Figure 3.18 Route approaching the Parthenon - cyan: The Propylaea; red: The Parthenon; blue: Route. (Source: Corbett, E. P. *The Sculpture of the Parthenon*, 1959, p. 6, edited by researcher)

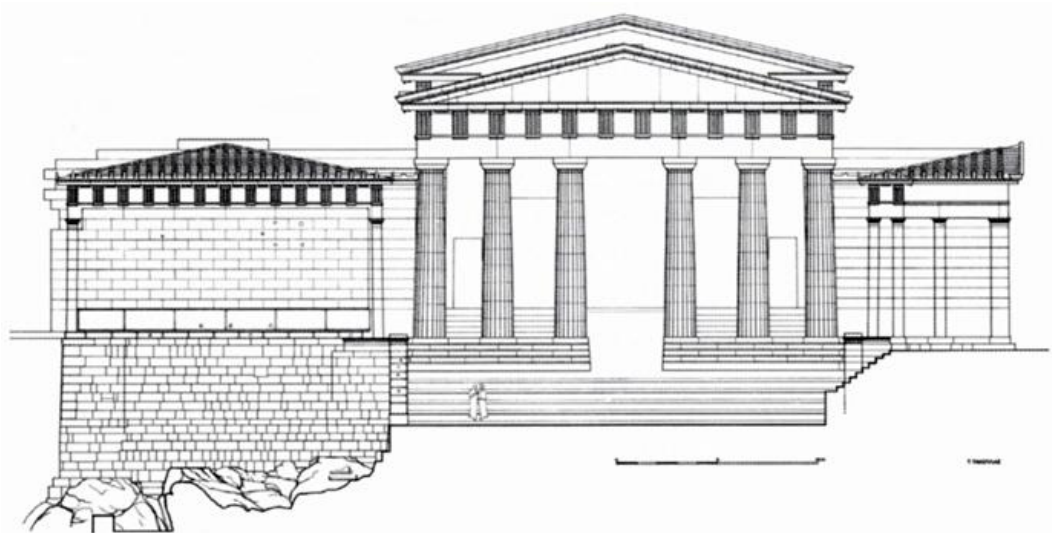


Figure 3.19 The Propylaea - west side (Source: Anon. *Acropolis and the Museum - Brief history and tour*, p. 5.)

Situated on the southeast side of the Acropolis, the Parthenon Temple needs to be approached through climbing the slopes of the Acropolis to the monumental gateway - the Propylaea (figure 3.18). The Propylaea comprises a central rectangular building

with six Doric columns standing on the east and west sides, and a transverse wall with five doors (figure 3.19).²⁸⁸ Arriving at the end of the portico of the Propylaea, the colossal building of the Parthenon comes into view. However, only half of the Parthenon could be viewed for the reason that ‘to the right is the wall enclosing the sanctuary of Artemis Brauronia and the Chalcotheca’.²⁸⁹ Crossing the portico and walking towards the east, the Parthenon Temple could be discovered in full view. Approaching the Temple, the Temple itself provided the visitors with a process of interpretation of two orders: the Doric order as the bearing system, and the Ionic order as the superstructure system.²⁹⁰ As people moved up the Temple via the stairs, the first indication of the Ionic order was the frontal eight columns along the short sides of the building, but presented as Doric types.²⁹¹



Figure 3.20 View from the Propylaea (Source: Psarra, S. *Architecture and Narrative: The formation of space and cultural meaning*, 2009, p. 27.)

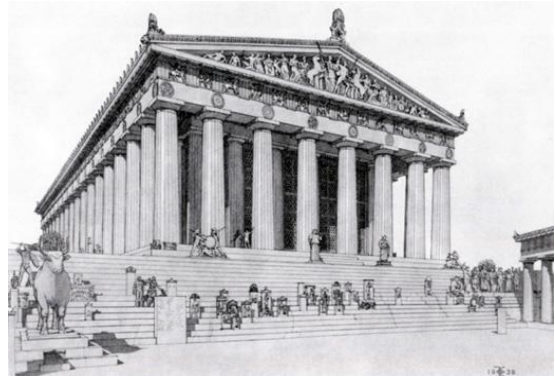


Figure 3.21 View from the Propylaea (Source: Psarra, S. *Architecture and Narrative: The formation of space and cultural meaning*, 2009, p. 28.)

The Periclean Parthenon was constructed on the base of the Old Parthenon, which was destroyed by the Persians (figure 3.22). Compared with the old plan, the new plan is slightly broader. The former emphasised that the longitudinal axis of the old plan had been reduced. The space within the cella and the west chamber were both enlarged in

²⁸⁸ Anon. *Acropolis and Museum: Brief history and tour*, 3rd ed. Athens: Acropolis Museum publication, 2011, p. 6.

²⁸⁹ Psarra, Sophia. The Parthenon and the Erechtheion: the architectural formation of place, politics and myth, *The Journal of Architecture*, Spring 2004, vol. 9, p. 93.

²⁹⁰ Tournkiotis. *The Parthenon and Its Impact in Modern Times*, p. 87.

²⁹¹ *ibid.*, p. 87.

proportion to its length. The new plan added more columns on both sides of the peristyle. The new Parthenon used octastyle instead of hexastyle along each short side, adding one more column along each long side. With eight columns standing on the short sides and 17 columns standing on the long sides, the density of the colonnaded space increased. The height, the width, and the length of the Temple and even the relationship of the columns to the spaces between them were linked in proportions of nine to four.²⁹² 'From this new ratio of nine to four, a new proportional system was applied throughout the other parts of the building, bestowing on the design a much greater sense of unity'.²⁹³

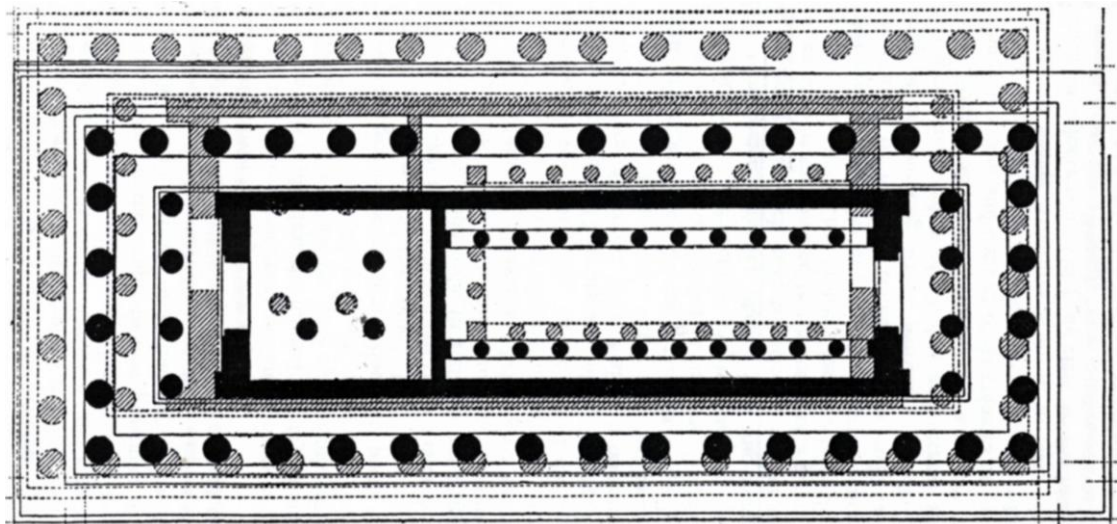


Figure 3.22 Plans of older and later Parthenon superimposed (Source: Bruno, J.V. *The Parthenon: Illustrations, Introductory Essay, History, Archaeological Analysis, Criticism*, 1974, p. 61.)

²⁹² Woodford, Susan. *The Parthenon*, Cambridge: Cambridge University Press, 1981, p. 17.

²⁹³ Bruno, J. Vincent. *The Parthenon: Illustrations, Introductory Essay, History, Archaeological Analysis, Criticism*, 1st ed. New York: Norton, 1974, p. 77.

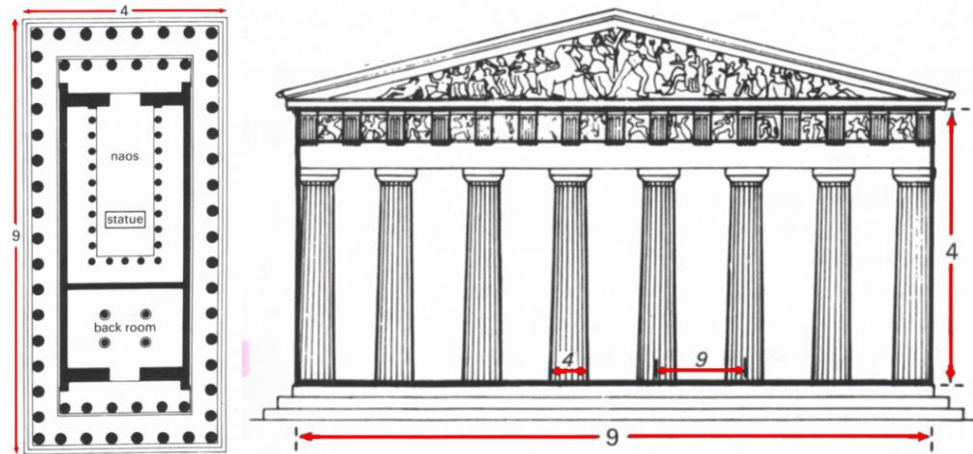


Figure 3.23 Plan and Elevation of the Parthenon showing the 9:4 ratio of the width to the height and of the interaxial to the diameter of the columns (Source: Woodford, S. *The Parthenon*, 1981, p. 17, edited by researcher)

Such dense arrangement of the columns could effectively sustain the colonnaded space of the long sides. If the distances between each column were not sufficiently narrow than the distance between the columns and the walls of the cella, the colonnaded space, as the first and semi-opened place which transformed the exterior to interior, would lose its coherence and become confused with the space outside. Therefore, there were two forces between the cella and the colonnaded space: one was the force from the wall which pushed the colonnade space outside in order to increase the interior size of the cella and made the wall as close to the columns as possible; the other is the force held in the colonnaded space forms by the remarkable density of the columns.²⁹⁴ Standing in the colonnaded space, the colonnaded space was not merely a rectilinear space but a space that flowed around the cella.²⁹⁵ Hence, the Ionic Frieze along the four sides of the cella was sustained by the force which was created by the colonnaded space.

Another distinctive feature from the plan was the extreme shallowness of the pronaos and opisthodomos. The Parthenon cella was not constructed as a completely closed space. With its long sides of solid walls, but two columns standing in antis, and the

²⁹⁴ Tournkiotis. *The Parthenon and Its Impact in Modern Times*, p. 90.

²⁹⁵ *ibid.*, p. 90.

short sides comprising six columns each, the Parthenon cella was divided into four parts of spaces - the semi-opened pronaos and closed naos, and the semi-opened episthodomos and closed west chamber. In other Greek temples, the width of the interior of the pronaos was much wider than the distance between the columns.²⁹⁶ Apparently, the width of the pronaos and episthodomos of the Parthenon cella was slightly wider than the distances between each of the six frontal columns.

In addition to this unique feature, there were two other features which made the temple so rare: one was that the pronaos and opisthodomos were almost the same in size, where in other temples the pronaos was usually deeper than the opisthodomos; the other was both the pronaos and opisthodomos were prostyle, not in antis, as in other traditional temples.²⁹⁷ Hence, pronaos and opisthodomos became transitional spaces between the colonnaded space and the cella, and the colonnaded space and the west chamber. The spatial innovations contributed to the creation of the sacred atmosphere of the Temple, particularly the Ionic Frieze. The focus gradually shifted from outside to semi-opened colonnade space, and from colonnaded space to pronaos. The prostyle of the west and east sides of the cella hinted at the meanings of the relevant sequence of the Ionic Frieze - preparation of the Panathenaia procession was depicted on the west Ionic Frieze and the dedication of the peplos was depicted on the east Ionic Frieze.

Compared with the plan of the Old Parthenon, not only were the spaces within the cella enlarged, but also the interior design was altered. In the old plan, interior space of the cella was divided into three aisle spaces, with two narrow aisles on each side, and one wide one in the centre. In contrast, in the new plan, 'the transverse colonnades connected the longitudinal colonnades at the rear of the cella, thus creating a continuously flowing, three-sided composition'.²⁹⁸ What is more, being designed as the place to store the statue of Athena, the three-sided colonnaded space offered a

²⁹⁶ *ibid.*, p. 92.

²⁹⁷ *ibid.*, p. 92.

²⁹⁸ Bruno. *The Parthenon*, p. 77.

background for the Goddess. Hence, regardless of whether it was the interior space of the cella in which the statue of Athena was situated, or the colonnaded space surrounding the cella in which the Ionic Frieze was located, they both conferred significance to the function of the Parthenon Temple - not only as a place to house the statue of the Goddess and a votive offering dedicated to the Goddess, but also as a tangible place to display and pass on their culture and memories.

Very few scholars have discussed the lighting conditions in the Parthenon Temple. One scholar, James Fergusson, wrote an essay entitled - *The Parthenon; An essay on the mode by which light was introduced into Greek and Roman temples*. However, the essay focused more on the lighting of the interior of the Parthenon Temple and other Greek temples rather than on Parthenon sculptures, and in particular, the Ionic Frieze. It is undeniable that the majority of Parthenon sculptures are positioned both on the exterior colonnades or the roof. In regard to the Ionic Frieze, which was situated 12 metres above the ground along the cella, how could it be viewed?

Positioned behind the metopes, light could be introduced from the exterior colonnades. According to Vouza, archaeologist in the NAM Parthenon Gallery, the roof above the Ionic Frieze, which was the roof of the colonnaded space, was made of light marble. Therefore, the naked sunlight, which could be mediated by the marble roof to a gentle level, would project onto the Ionic Frieze. The top area of the colonnaded space was not completely dark but was immersed in a gentle light. It could be conceived that the lighting conditions of the Ionic Frieze would be totally different from those of other Parthenon sculptures. For those Parthenon sculptures which were exposed to direct sunlight, they were the focus of the Parthenon Temple whenever being viewed from the outside. For the Ionic Frieze, as a part of the Parthenon cella, it indicated the meaning of the Temple in a mediated lighting condition: a Temple as an artefact which was dedicated to the Goddess Athena. Therefore, the frieze, as the device communicating significant events, transforms from its original form in the tangible material of textile, to visual form in the tangible material of marble, and finally to

spatial form in the tangible architectural space. The significant event Panathenaia festival was recorded from textile-storytelling to visual- and spatial-storytelling.

3.2.3 Weaving the Culture: Significance of Spatial-Storytelling

As discussed above, architecture, according to Semper, could be regarded as the creative product of the activity of weaving, and the Panathenaia peplos, as textile-storytelling, could by extension be considered as the ritual product of the activity of weaving. The Ionic Frieze was likewise the ritual product of the activity of weaving. In regard to the Panathenaia peplos, friezes, the continuous horizontal frieze and the ladder-like or metope-like frieze, were the different styles of textile-storytelling. In regard to the Ionic Frieze, the peplos was a permanent ritual sign, which was identified on the central east Ionic Frieze, indicating the significance of the Panathenaia festival.

The Panathenaia festival, as a real event, primarily happened in place. It was afterwards mediated by the Panathenaia peplos - tangible textile as textile-storytelling, then mediated by the Panathenaia procession - marble Ionic Frieze as visual-storytelling, and eventually mediated by the Parthenon Temple as spatial-storytelling. The religious Panathenaia procession - the subject of the Ionic Frieze - 'is unique in such a context, as indeed is almost every aspect of this extraordinary monument'.²⁹⁹ Storytelling, as a meaningful cognitive action generated by humans, contributed to conveying meanings of significant human events in diverse forms of different tangible materials.

Regardless of whether we were referring to the Panathenaia peplos or the Ionic Frieze, they both were tangible media that depict the significance of the Panathenaia. The difference between the Ionic Frieze and the Panathenaia peplos was the medium of representation. For the Panathenaia peplos, the medium of representation was the

²⁹⁹ Roberson. *The Parthenon Frieze*, p. 8.

tangible medium of textile. For the Ionic Frieze in the Parthenon Temple, the media of representation were the tangible medium of marble and the intangible medium of space; circulation, space layout, and lighting. ‘The achievement of the Parthenon masters did not bring the development of art and architecture to a standstill by inspiring mere imitation. On the contrary, the immediate effect of the Parthenon was to stimulate originality and experimentation’.³⁰⁰

The Panathenaia festival, the Panathenaia Peplos, the Ionic Frieze and the Parthenon Temple - were artefacts created by the ancient Greeks. Within these artefacts, storytelling, as the interpretation of human beings to communicate with the outside world, evolved from verbal to spatial, from the cognitive activity to the embodied experience. The Parthenon was not only an artefact woven by humans, but was a materialised embodiment of spatial-storytelling consisting of verbal-storytelling (the Panathenaia festival), textile-storytelling (the Panathenaia peplos), and marble-storytelling (the Ionic Frieze). The significance of the ritual Panathenaia has been constantly mediated by these tangible and intangible media of either the *content* of the storytelling or the *representation* of the storytelling. Human beings were not non-participating spectators or surveyors of the surrounding world, but were the authentic makers, ‘weaving’ as well as experiencing the culture. The Parthenon, as spatial-storytelling, tangibly mediates the culture it represents. This may be where the significance of architecture rests; as a creative product of human activities, which simultaneously shapes humans’ lives.

Conclusion

The discussion in this chapter starts with Semper’s idea of architecture which originated from human beings’ weaving of the materials of branches and grass to their eventual manipulation of stone, followed by a brief literature review of the frieze within Classical architecture, and the frieze as styles of weaving the Panathenaia peplos, leading on to a discussion of the Ionic Frieze on the Parthenon Temple as

³⁰⁰ Bruno. *The Parthenon*, p. 95.

spatial-storytelling.

To conclude, architecture, instantiated by the Parthenon Temple, could be regarded as spatial-storytelling to communicate meanings. The medium of this spatial-storytelling not only comprises the tangible medium of material, but also comprises the intangible medium of space (circulation, space layout and lighting). Therefore, the significance of the religious Panathenaia festival is not merely depicted by the token figure of peplos identified on the central east Ionic Frieze, but is also depicted by the whole representation of the Ionic Frieze and the space of the Parthenon Temple. Hence, when the Ionic Frieze was removed from its original context of the Parthenon Temple in separate pieces and displayed in the museum, how could museum architecture use spatial-storytelling to interpret the significance of the Panathenaia festival? What are the media of museum architecture used to achieve spatial-storytelling?

In Part Two, the perspective will shift from theory to practice; the case study of the Ionic Frieze in two Parthenon Galleries.

Part Two *Practice*

Chapter Four The Parthenon Gallery in the British Museum

Introduction

This chapter comprises four sections. The first provides an introduction to the British Museum and the Duveen Gallery, including the content of the Ionic Frieze of Elgin Marbles which are displayed in the Gallery. The second presents an analysis of the medium of the Gallery space which contributes to mediate the Ionic Frieze of Elgin Marbles. The third details the analysis of the medium of audiovisual texts in the Gallery space which contributes to communicate the meanings of the Ionic Frieze and the Gallery space. The fourth is a summary of the medium that contributes to communicate meanings of the Ionic Frieze in the Duveen Gallery. The methods employed are observation and architectural analysis.

4.1 Background Introduction

4.1.1 The British Museum

Established in 1753, the foundation of the British Museum lies in the will of the physician and scientist Sir Hans Sloane. Born in 1660, Sir Hans Sloane collected around 71,000 objects during his lifetime. On his death in 1753, he bequeathed all his belongings and collections to the nation. This collection, together with the library of King George the Second, was opened to the public in 1759 in Montagu House in Bloomsbury, the site of the current building, as the British Museum. A considerable part of this collection was later to become the foundation of the Natural History Museum. Due to the growth of its collections, the expansion of the museum was proposed in 1802. In 1822, in response to the donation of King's Library, the personal library of the King George, architect Sir Robert Smirke was asked to design an eastern

extension of the Museum, and proposed the quadrangle building of the Museum.

Completed in 1852, the Museum building is a quadrangle space with four wings: the north, the south, the west and the east. Designed in the Greek revival style, the Museum building has many features including the columns and pediments at the south main entrance located in Great Russell Street. Opened in 2000, the central Great Court is a covered area vacated by the British Library which is now sited at St. Pancras. Considered as the largest covered area in Europe, the Court was designed by engineer Buro Happold and British architects, Foster and Partners. The roof of the court is a glass and steel construction with 1656 shaped panels of glass. Subsequently, the lack of conservation areas in the present Museum site has led to the new project of the World Conservation and Exhibition Centre to combine all the Museum's conservation facilities into one Conservation Centre. Announced in 2007 with completion expected in 2013, this project was designed by Rogers Stirk Harbour and Partners.

During the 1850s, due to more and more collections being displayed in the Museum, collections of natural history were moved to the Natural History Museum in South Kensington. Therefore, since that time, the collections of the British Museum have been displays of human history and culture. Housing over six million artefacts at present, the collections of the Museum range from small archaeological fragments to massive objects from past and contemporary cultures. Covering an area over 75,000 square metres, the Museum space is divided into three main floors: the lower floor, the ground floor and the upper floor. The lower floor, consisting of two levels, contains the Museum education centre and galleries of artefacts from Africa and Ancient Greece and Rome (figure 4.1). The ground floor, which is the largest gallery area, consisting of four levels, contains the Great Court surrounding the original reading room and significant objects from ancient Egypt to Asia and the Middle East (figure 4.2). The upper floor, consisting of three levels, contains different objects from areas located on the ground floor but in mixed cultures (figure 4.3). Temporary exhibitions are located on both the ground and upper floors.

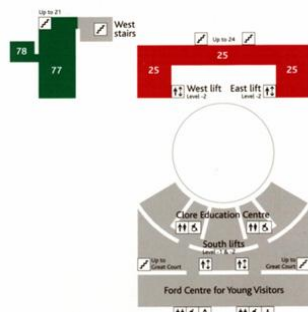


Figure 4.1 British Museum lower floor plan - red: Africa; green: Ancient Greece and Rome; gray: Clore Education Centre. (Source: Anon. *British Museum Map*, 2008.)

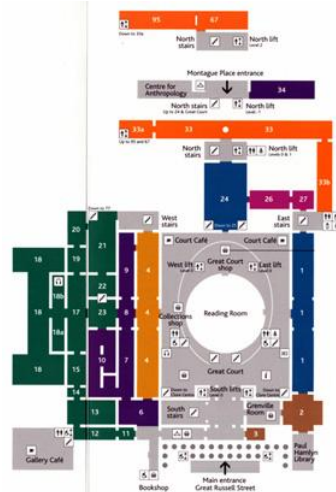


Figure 4.2 British Museum ground floor plan - orange: Asia; purple: Middle East; pink: Americas; blue: Themes; yellow: Ancient Egypt; brown: Exhibitions and changing displays (Source: Anon. *British Museum Map*, 2008.)

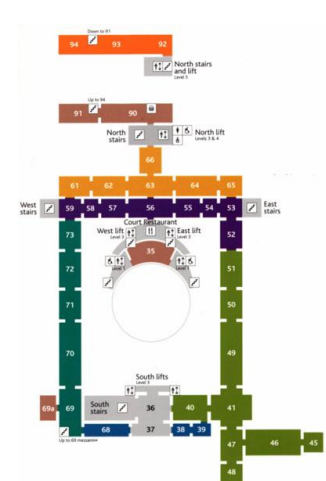


Figure 4.3 British Museum upper floor plan - orange: Asia; brown: Exhibitions and changing Displays; yellow: Ancient Egypt; purple: Middle East; dark green: Ancient Greece and Rome; light green: Europe (Source: Anon. *British Museum Map*, 2008)

Within millions of significant artefacts, there are four key treasures in the British Museum. They are the Rosetta stone (1), the Egyptian mummies (2), the Portland vase (3) and the Parthenon sculptures (4). Commonly known as the Elgin Marbles, the Parthenon sculptures are the only group of artefacts in the British Museum that are exhibited in a gallery which is specifically designed for them.



Figure 4.4 Four Treasures of the British Museum (Source: British Museum Map 2011)



Figure 4.5 Thomas Bruce (Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 5.)



Figure 4.6 The temporary room exhibiting Elgin Marbles in 1819 (Source: Tournikiotis, P. *The Parthenon and Its Impact in Modern Times*, 1994, p. 223.)

Tomas Bruce, seventh Earl of Elgin, has been known to the public not only during his own time as Ambassador at Constantinople to the Ottoman Empire, but also today, as being responsible for removing pieces of sculptures on the Acropolis in Athens, especially the Parthenon sculptures.

During 1799 to 1803, Elgin (as Bruce became known) was appointed as Ambassador at Constantinople to the Ottoman Empire. Originally suggested by Neo classical architect Thomas Harrison, Elgin agreed that his term of office in Constantinople would provide an opportunity to improve the knowledge of architecture in Great Britain. Therefore, before his departure to Turkey, Elgin attempted to obtain support from the British Government with the proposal of employing artists to take drawings and plaster casts of the sculptures in Athens. Refused by the Government, Elgin decided to carry out the work at his own expense. With the recommendation from Sir William (British Minister to the Kingdom of the Two Sicilies from 1764 to 1800),³⁰¹ Elgin hired the Neapolitan court landscape painter Giovanni Battista Lusieri as the

³⁰¹ Cook, B.F. *The Elgin Marbles*, London: The British Museum Press, 1984, p. 69.

main supervisor of this project.

Although the original intention was only to document the sculptures, Elgin started to remove the sculptures on the Acropolis in 1801 under the supervision of Lusieri. In 1804 Lusieri had to suspend his activities on the Acropolis, but continued excavations on other sites until October 1805, with the prohibition of the excavation. On his way back to England, Elgin was arrested and remained in France until 1806. Lusieri returned to England in 1811 with the last crates of sculptures. He then returned to Athens, where he died in 1821.

The Elgin Marbles comprise 17 figures of the east and west pediments, 15 of the original 92 panels of the metopes, and approximately 75 metres of the original 160 metres of the Ionic Frieze from the Parthenon Temple. The marbles also include sculptures from other temples on the Acropolis, such as; a Doric capital, an Ionic column-drum and a moulded wall-block from the Propylaea; the statue of Dionysos from the Monument of Thrasyllus, a Caryatid from the Erechtheion, four frieze-blocks from the Temple of Athena Nike, and some fragments of the 'Treasury of Atreus'.³⁰²

When the Elgin Marbles were shipped from Athens to London, Elgin was in deep financial difficulties. The total acquisition, transport and care of the marbles had cost him around 70,000 pounds. Instead of taking these marbles to Broomhall, the ancestral home of the Earls of Elgin in Scotland, Elgin began to consider selling them to the Government in 1810. During almost six years' negotiation with the Government, 'an act of Parliament was eventually passed in 1816 to transfer ownership of the Elgin Marbles to the nation and they were vested in the Trustees of the British Museum and their successors in perpetuity'.³⁰³ Considered as acting on his own account rather than as part of his ambassadorial duties in acquiring the marbles, Elgin received only half of the total cost.

³⁰² *ibid.*, pp. 77-79.

³⁰³ *ibid.*, p. 85.



Figure 4.7 The Elgin room (Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 89.)



Figure 4.8 The Elgin room (Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 90.)

The Parthenon Marbles were then moved into the British Museum in 1816, and a temporary gallery constructed in the previous year housing the Bassae Frieze from the Temple of Apollo was extended to receive them. This temporary gallery (figure 4.6) was opened in 1817 and remained in use for 14 years. Within this gallery, compared with the metopes and the Ionic Frieze, the pediment sculptures are not displayed in their original locations. In 1835 the entire collection was exhibited in a newly constructed permanent gallery named ‘the Elgin Saloon’, which continued to house the main body of the Parthenon sculpture until 1961. Between 1857 and 1869 the pediments were shown separately in a newly built gallery to the south.

From 1869, the whole collection was exhibited in the Elgin Room (figure 4.7, figure 4.8). The guiding principle of this gallery was to present the sculptures of the Parthenon in as complete a form as possible.³⁰⁴ Even though the arrangement of the display was useful to scholars, the mixture of the original and the plaster casts was ‘aesthetically unattractive and also tended to confuse the ordinary visitor’.³⁰⁵ Hence, following the public expression of criticism in 1928 in a report of the Royal Commission on National Museums and Galleries, Sir Joseph Duveen, known as Lord Duveen, generously offered to build a new gallery for the Parthenon sculptures at his

³⁰⁴ *ibid.*, p. 85.

³⁰⁵ *ibid.*, p. 85.

own expense. Construction of the new gallery began in 1936 and was completed in 1938. However, the Duveen Gallery was partly damaged during the Second World War, and it was not until 1962 that the Gallery opened to the general public as a permanent house for the Parthenon sculptures collection.

Having being displayed in the British Museum for almost 200 years, the Elgin Marbles have provoked arguments in different fields and have become central to the issue of repatriation of artefacts in the museum world. Lord Byron (1788-1824), the great British poet and a leading figure in the Romantic movement, condemned outright Elgin's actions. In the second Canto of *Childe Harold's Pilgrimage* and in a later work *The Curse of Minerva*, Byron 'empties the vials of scorn and contempt' over Elgin's actions.³⁰⁶ Even though it appeared that the Marbles were purchased by the British government from Lord Elgin 'legally', and the Parliamentary Committee's recommendations were followed by the House of Commons in 1816,³⁰⁷ 'it cannot be said that no voice was strongly raised against the purchase of the Elgin Marbles for the nation'.³⁰⁸ Jeanette Greenfield, author of *the Return of Cultural Treasure*, wrote:

At the February debate on the petition to investigate their value, Mr Thomas Babington [(1758-1837), an English philanthropist and politician] said that the mode in which the collection had been acquired 'partook of the nature of spoliation'. It was of the greatest importance, he said, to ascertain whether this collection had been procured by such means as were honourable to this country, and he hoped the Committee would be careful in seeing that the whole transaction was consonant with national honour. Otherwise, the government should have nothing to do with it.³⁰⁹

In the June debate on the actual purchase of the Marbles, Mr Hugh Hammersley said that he would oppose the resolution on the purchasing of the Marbles 'because of the dishonesty of the transaction by which the collection was obtained'.³¹⁰ As to the value

³⁰⁶ Milliarakis, Antonios. *The Seizure of the Parthenon Sculptures*, translated by E. Ghikas, Athens: The Society for the Study of Greek History, 2002, p. 22.

³⁰⁷ Greenfield, Jeanette. *The Return of Cultural Treasures*, 3rd ed. Cambridge: Cambridge University Press, 2007, p. 57.

³⁰⁸ *ibid.*, p. 57.

³⁰⁹ *ibid.*, p. 57.

³¹⁰ *ibid.*, p. 57.

of the Marbles defined as being ‘of extraordinary interest and setting new standards of merit’, he agreed with the Committee; however, ‘he was not so enamoured of those headless ladies as to forget another lady, namely Justice’.³¹¹ He would rather propose as an amendment a resolution, which stated:

This Committee, therefore, feels justified under the particular circumstances of the case, in recommending that £25,000 be offered to the Earl of Elgin for the collection in order to recover and keep it together for that government from which it has been improperly taken, and that to which this Committee is of opinion that a communication should immediately be made, stating that Great Britain holds these marbles only in trust till they are demanded by the present, or any future, possessors of the city of Athens; and upon such demand, engages, without question or negotiation, to restore them, as far as can be effected, to the places from whence they were taken, and that they shall be in the mean time carefully preserved in the British Museum.³¹²

According to the above statement by Mr Hammersley, even though the British government bought the Elgin Marbles, the Elgin Marbles were not to be regarded as a permanent treasure belonging to this country. What is more, the role of the British Museum was seen as being merely a place for preserving the Elgin Marbles until they were demanded by their original possessors; the city of Athens. With reference to a Greek scholar Antonios Miliarakis, Elgin’s action equated to a criminal act which resulted not only in the destruction of the Parthenon sculptures and of so many other precious monuments of Greece, but also in triggering new acts of plunder of the Greek antiquities by other Great powers.³¹³ During the time of the Ottoman control of Greece, ‘the ambassadors and the diplomatic agents of the Great Powers were just as great a scourge for the reason that they were literally preying on the ancient sites of Greece’.³¹⁴ Therefore, it is natural for the contemporary Greeks to claim the Marbles back after their independence. In recent decades, voices arguing for repatriation have become increasingly strong.

³¹¹ *ibid.*, p. 57.

³¹² *ibid.*, pp. 57-58.

³¹³ Miliarakis. *The Seizure of the Parthenon Sculptures*, p. 22.

³¹⁴ *ibid.*, p. 16.

Compared with the idea mentioned above, a contrary body of thought exists; that Elgin's act can be regarded as an act of preservation. With reference to Timothy Webb's article *Appropriating the Stones: The 'Elgin Marbles' and English National Taste*,

It has always appeared to me rather extraordinary to consider Lord Elgin as a destroyer. I venture to think that he is more entitled as the saviour of the finest part of the building, and deserves the thanks of every man of feeling and taste throughout Europe.³¹⁵

In regard to Greenfield,

Whether or not the actual *removal* of the marbles was an act of preservation, it can be fairly said that the *purchase* by the British government was an act of preservation, because it sought to hold the collection together to be housed safely in one of the finest museums in the world. Given that the House of Commons Committee was confronted with a *fait accompli* in the transportation of the marbles to Britain, it is unreasonable to attack, as many writers do, the British government's action in purchasing them for the nation.³¹⁶

Hence, according to the above opinions, whether or not Elgin's actions and the British government's actions can be regarded as the acts of preservation of the Marbles, a subsequent question can be addressed: were the Marbles at the time of removal really in severe condition? According to Greenfield, there was contradictory evidence to indicate that, 'it is extremely unlikely that in their very removal they did not suffer substantial damage'.³¹⁷ It was also recorded at the time of Elgin's activities that the backs of the architectural sculptures were cut off if their thickness made them inconveniently heavy for any methods of transport then available'.³¹⁸ There is a special display of a portion of the original remains of the back of the Marbles displayed in the NAM Parthenon Gallery, which will be discussed in Chapter Five.³¹⁹

³¹⁵ Webb, Timothy. *Appropriating the Stones: The 'Elgin Marbles' and English National Taste*, in: Barkan, Elazar, and Ronald Bush, eds. *Claiming the Stones/Naming the Bones: Cultural Property and the Negotiation of National and Ethnic Identity*, Los Angeles: Getty Publications, 2002, p. 51.

³¹⁶ Greenfield. *The Return of Cultural Treasures*, pp. 59-61.

³¹⁷ *ibid.*, p. 61.

³¹⁸ *ibid.*, p. 61.

³¹⁹ See 5.3.4 In the Main Gallery, pp. 216-218.

According to Webb, being entitled the Elgin Marbles, this treasure had been stamped by Lord Elgin with his identity, in a sense, ‘by so memorably collecting such a large group of them on his own initiative’.³²⁰ For Webb,

Whatever hesitations or objections were made on the part of individuals and at a cost far below that which Elgin required in order to reimburse himself, the state authenticated that this apparently provisional identity by including them so prominently in the national collection.³²¹

Whatever the qualifications, however, the connection between Lord Elgin and his collection was to be acknowledged by formal and official recognition.³²² ‘The growth of nationalism and national self-consciousness has ensured that, for many, such a title is necessarily provocative’.³²³ Hence, contentions based on political issues and issues of identities - both individual and national - can thus be generated, such as: should the Elgin Marbles be returned to their original context?; to what extent can the British Museum be regarded as the legitimate (permanent) place to house the Elgin Marbles?; and many more.

Melina Mercouri (1920 - 1994), a Greek actress, singer and the former Greek Minister of Culture, stressed that ‘the marbles, removed by Lord Elgin over 190 years ago, are an integral part of the Acropolis, which symbolizes Greece itself, and are part of its psychological landscape’.³²⁴ With reference to the Greek scholar Antonios Miliarakis,

Everyone knows that in 1800, and in the following years, Lord Elgin took antiquities from the Acropolis, and in particular from the Parthenon. Yet few people know something besides his Lordship’s name and actions. These events have become by now part of history, since the present generations see and know the monuments of Athens, and of the Acropolis itself, as they now stand, while the handful of old Athenians, who were born at the beginning of the century, have built little recollection of them, and what they do remember is confused and has been handed down to them.

³²⁰ Greenfield. *The Return of Cultural Treasures*, p. 52.

³²¹ *ibid.*, p. 52.

³²² *ibid.*, p. 53.

³²³ *ibid.*, p. 53.

³²⁴ *ibid.*, p. 41.

To the best of our knowledge there has been no extensive and detailed study in Greek on the Parthenon marbles. It is only sporadically and in passing, in the footnotes of some article on the monuments of Athens in a scientific journal or in an occasional speech, that the name of Elgin is mentioned and his actions condemned, judged after the fact and in the wake of Greece's liberation.³²⁵

As discussed in Chapter Three, according to different contexts, artefacts are meaningful metaphors.³²⁶ Regarded as symbolic cultural metaphors of the Panathenaia festival, the Ionic Frieze and other Parthenon sculptures are irreplaceable parts of the Parthenon Temple. And as also discussed in Chapter One, meanings are affected by the context.³²⁷ Hence, when these sculptures were removed from their original context and are displayed in a new context, they are not only cultural metaphors of the Panathenaia festival, but also political metaphors of the Elgin issues. In other words, the debates surrounding the Elgin Marbles unavoidably added meanings to these unique sculptures. Therefore, the Elgin Marbles are not only a powerful medium to generate debates on the legitimate places to house them, but also act as symbols of memory for the contemporary Greek to retrospect and understand their prosperous past.

4.1.2 The Duveen Gallery

John Russell Pope (1873-1937) was a Neo classical American architect mostly known for his designs of the west wing of the US National Gallery of Art (figure 4.10), the US National Archives (figure 4.11), the American Pharmaceutical Association (figure 4.12), and the Jefferson Memorial (figure 4.13).³²⁸ After studying medicine for almost three years at college, Pope went to Columbia University to study architecture in 1891. With his graduation from Columbia University in 1894, he won the McKim Travelling Fellowship and the first prize awarded by the American School of Architecture in Rome in 1895, which offered him a great opportunity to spend 18 months in Rome. By

³²⁵ Milliarakis. *The Seizure of the Parthenon Sculptures*, p. 35.

³²⁶ See 2.4.2 Metaphorical Meanings, p. 60.

³²⁷ See 1.4 The Idea of Context, pp. 28-37.

³²⁸ Bedford, M. Steven. *John Russell Pope: Architect of Empire*, New York: Rizzoli International Publications, 1998, p. 7.

the end of 1896, Pope left Rome to enter the École des Beaux-Arts in Paris. He returned to New York in 1900, and after several years in the office of Bruce Piece, an American architect of many of the Canadian Pacific Railway's Chateau-type stations and hotels, Pope began his own practice which lasted about 34 years. With diverse architectural designs in practice, 'his domestic and monumental architecture established him as a leader in the development of a highly refined and restrained classicism that came to distinguish American architecture from that of its European counterparts'.³²⁹



Figure 4.9 Russell Pope
(Source: Bedford, M. S. John *Russell Pope: Architect of Empire*, 1998, p. 5.)



Figure 4.11 US National Archives (Source: Bedford, M. S. John *Russell Pope: Architect of Empire*, 1998, p. 7.)



Figure 4.12 American Pharmaceutical Association
(Source: Bedford, M. S. John *Russell Pope: Architect of Empire*, 1998, p. 7.)

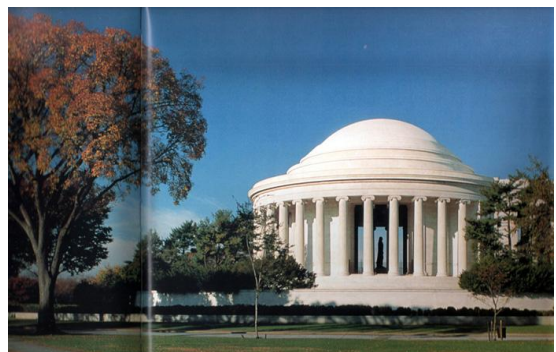


Figure 4.13 Jefferson Memorial (Source: Bedford, M. S. John *Russell Pope: Architect of Empire*, 1998, p. 7.)

³²⁹ *ibid.*, p. 10.

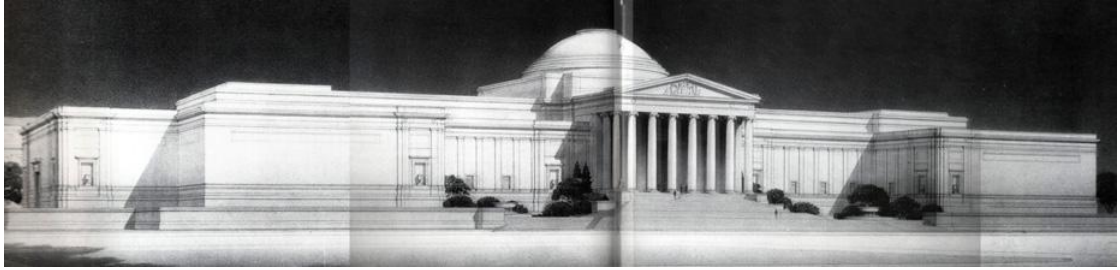


Figure 4.10 US National Gallery of Art (Source: Bedford, M. S. John *Russell Pope: Architect of Empire*, 1998, p. 7.)

Even though Pope's initial success was the Lincoln Birthplace Museum completed in 1911, it was not until 1929 that the completion of the initial phase of the Baltimore museum marked the beginning of a flood of commissions for him to participate in the designing of at least nine museums over the next eight years.³³⁰ In the first year, after successfully completing the design of the expansion of the New York's Metropolitan Museum of Art and the Cloisters, Pope was recognised by the British as developing a 'unique form of classicism'.³³¹ Therefore, he was chosen by Joseph, first Baron Duveen (1869-1939), connoisseur and English art dealer, as the architect for the installation of the Gallery housing the Parthenon sculptures in the British Museum as well as the modern foreign sculpture wing of the Tate Gallery, London. By June 1930, Pope submitted the plans of the Duveen Gallery (figure 4.14, figure 4.15). As commented by Director Sir George Hill, the gallery was 'so immense that the rest of the British Museum could be regarded as a dog house'.³³² The Duveen Gallery was designed as an I-shaped hall. The Ionic Frieze was incorporated into the walls of the long central section, 'while the pediments were to be freestanding in end rooms reached by a flight of steps flanked by a pair of Doric columns *in antis*, and decorated with the metopes raised in plinths'.³³³

³³⁰ *ibid.*, p. 170.

³³¹ *ibid.*, p. 174.

³³² *ibid.*, p. 182.

³³³ *ibid.*, p. 182.



Figure 4.14 Proposals for the Duveen Gallery
(Source: Bedford, M. S. John Russell Pope: *Architect of Empire*, 1998, p. 183.)

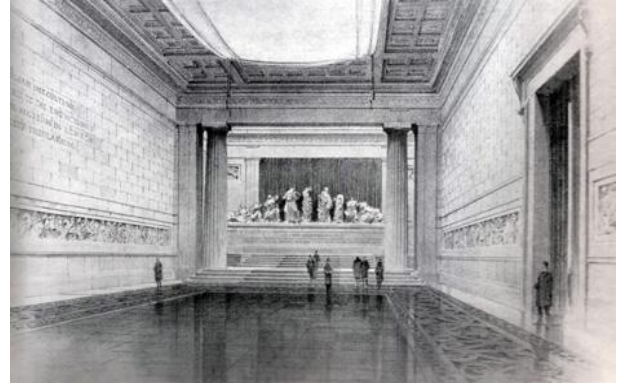


Figure 4.15 Proposals for the Duveen Gallery (Source: Bedford, M. S. John Russell Pope: *Architect of Empire*, 1998, p. 183.)

Invited to comment on the design, three professors of ancient arts objected both on the grounds that the building dominated the sculptures, and that the sculptures were assembled misleadingly; for instance, ‘the style of the metope plinths made the metopes appear to be steles, the use of a single pedestal base for the pediments, and the elaborate paving of the galleries’.³³⁴ After five years of negotiation, the Duveen Gallery was scaled down by half, the Ionic Frieze was displayed on a pedestal surrounding the walls of the central Gallery rather than being incorporated into the walls, the metope plinths were reduced to simple shelves, and the pediments were displayed on separated pedestal bases in relatively accurate positions. The floor decoration was reduced to a Greek Key and Flora pattern. In addition, the installations of two groups of Doric columns in front of the small galleries were reduced to one group with two Doric columns standing in front of the small Galleries, and two flights of the steps were reduced to one flight connecting the central Gallery and the small Galleries. Another revision could be found within the roof. The solid area along the four edges of the roof could be believed to represent the style of the original marble roof above the Ionic Frieze. However, the final presentation of this area on the roof as continuous single squares highly reduced the effect of this aspect (figure 4.16).

³³⁴ *ibid.*, p. 182.

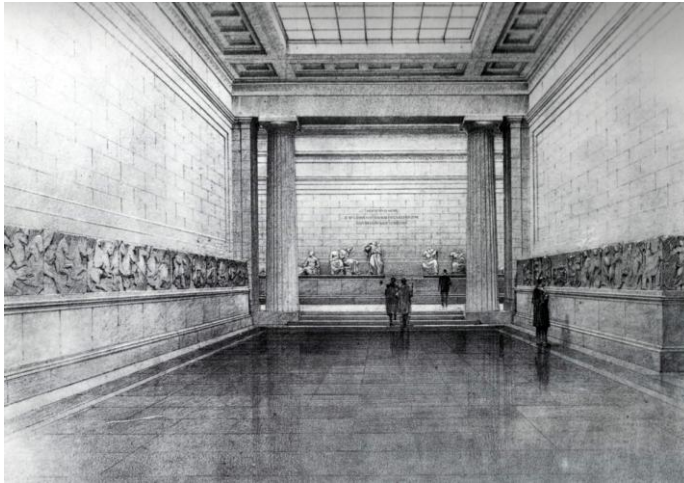


Figure 4.16 Final proposal for the Duveen Gallery (Source: Bedford, M. S. John *Russell Pope: Architect of Empire*, 1998, p. 184.)

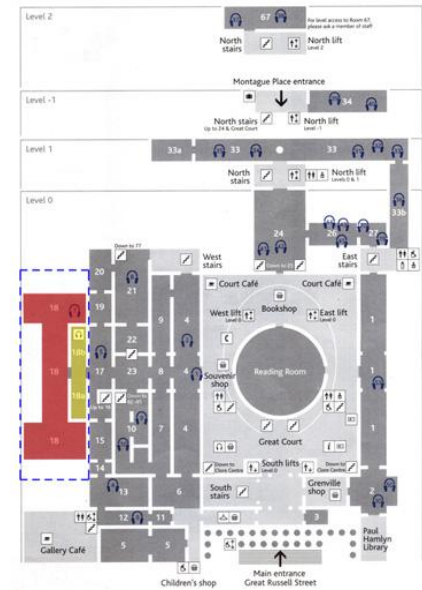


Figure 4.17 British Museum ground floor - red: Duveen Gallery; yellow: side galleries. (Source: Anon, *British Museum Map*, 2008, edited by researcher)

Construction began in 1937 and the Gallery opened to the public in 1939. During the Second World War, much of the British Museum, including the Duveen Gallery, was damaged by the bombing; however, the sculptures were fully protected in a safe place. It was not until 1962 that the Duveen Gallery opened to the general public with its intention of providing permanent housing for the Parthenon sculptures collection.

As part of the Ancient Greek collection, the location of Duveen Gallery is at the end of the Ancient Greek artefacts, which occupied areas of the west wing on the museum's ground floor (figure 4.17). The Duveen Gallery consists of five sections: the main Gallery is composed of three sections with two small sections at each end and one long section in the middle; the information Gallery is composed of two sections on each side of the Gallery entrance (figure 4.18). Approximately eight metres high, the main Gallery functions as the space for display of the original Parthenon sculptures contained in the Elgin Marbles since 1962. The information Galleries have been used since 1949 with various illustrative materials on the sculptures in the main Gallery and

other fragments of the Parthenon sculptures.

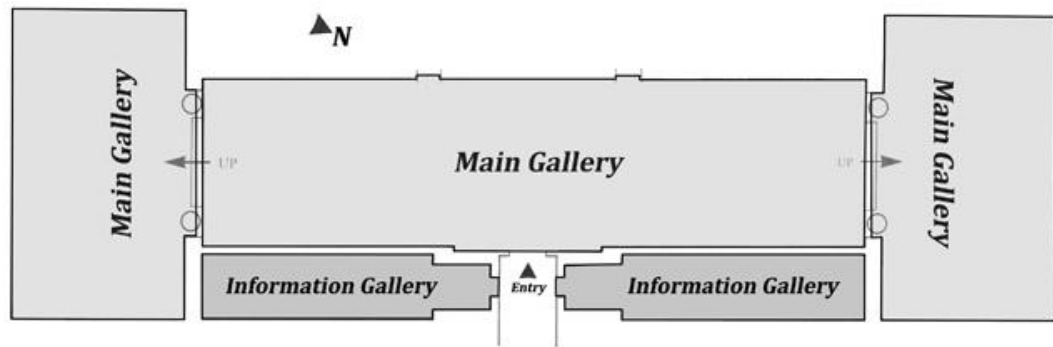


Figure 4.18 Plan of the Duveen Gallery - light grey: main gallery; dark grey: information gallery. (Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 91, edited by researcher)

In the main Gallery, the original Parthenon sculptures contained in the Elgin Marbles are commonly known as the Ionic Frieze, the metopes and the pediments (figure 4.19). The Ionic Frieze is approximately 75 metres of the original 160 metres long Ionic Frieze, 15 of the original 92 panels of the metopes, and 17 figures of the east and west pediments in the Parthenon Temple. In the central area of the main Gallery, the Ionic Frieze, approximately 1,400 millimetres above the Gallery floor, is displayed along the walls of both long sides. The metopes and the pediments are displayed in transepts at each end Gallery. The metopes are hanging on the wall surrounding the pediments at eye level, and the pediments are displayed on separate pedestals in the middle areas in relation with their original positions.

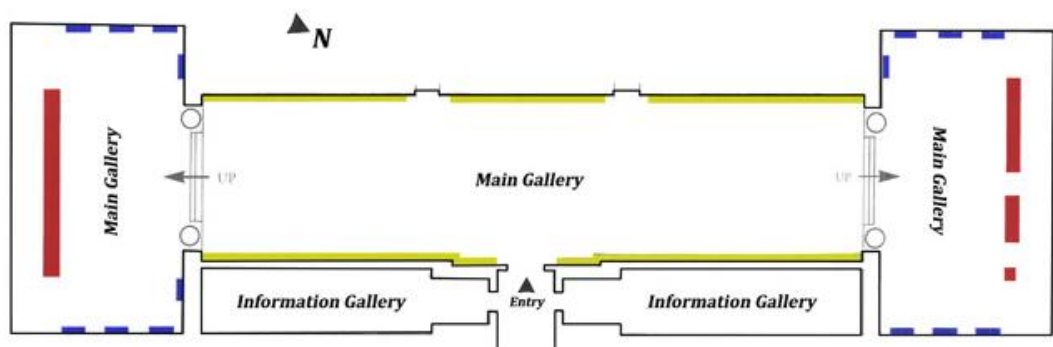


Figure 4.19 Plan of the Duveen Gallery - red: pediments; blue: metopes; yellow: Ionic Frieze. (Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 91, edited by researcher)

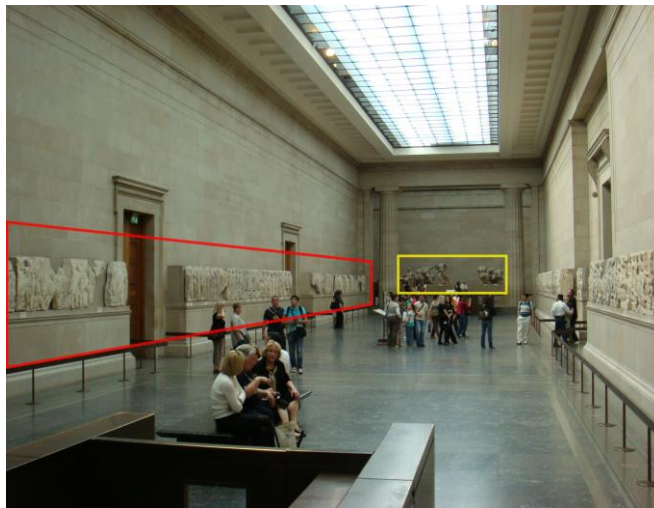


Figure 4.20 Interior of the Duveen Gallery - red: Ionic Frieze; yellow: pediments. (Photo and edited by researcher)

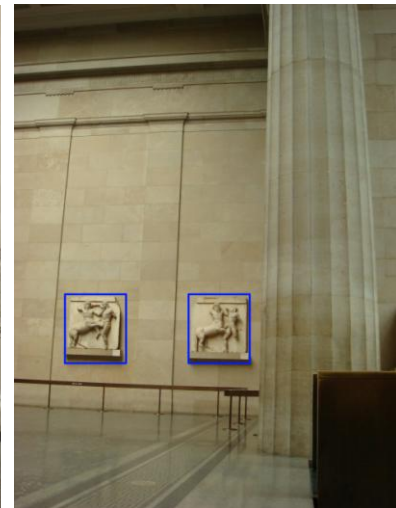


Figure 4.21 Interior of the Duveen Gallery - blue: metopes. (Photo and edited by researcher)

4.1.3 The Content of the Ionic Frieze in the Duveen Gallery

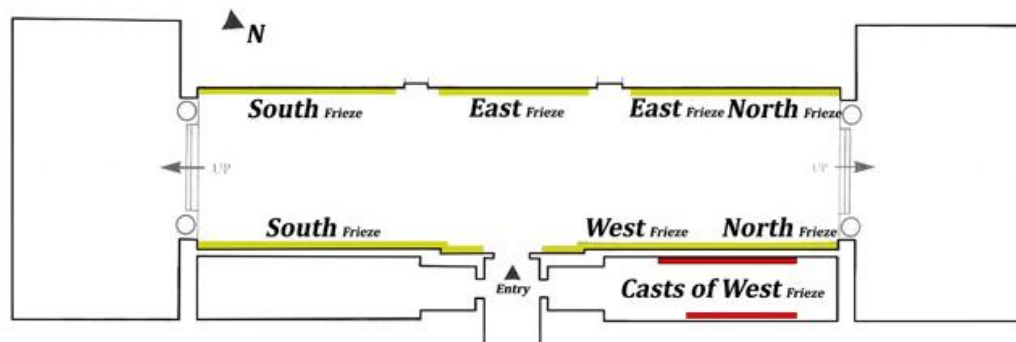


Figure 4.22 Plan of locations of the Ionic Frieze in the Duveen Gallery - yellow: original Ionic Frieze; red: complete casts of West Ionic Frieze. (Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 91, edited by researcher)

The 75 metres Ionic Frieze in the central space of the Duveen Gallery contains slabs from the north, south, west and east locations of the Ionic Frieze. In the north information Gallery, there are casts of the complete west Ionic Frieze of the Parthenon Temple. However, these casts were not moulded from the original west Ionic Frieze; rather they were derived from the moulds which were made for Lord Elgin of the entire Ionic Frieze on the Parthenon Temple around 1802. The moulds were to remain in Athens. Comprising 16 blocks in total, two of the original west Ionic Frieze blocks

are displayed in the main Gallery space.

4.2 Building and Content: The Duveen Gallery and the Ionic Frieze of Elgin Marbles

4.2.1 Circulation

In order to direct visitors to visit various galleries effectively, the British Museum map is designed into a detailed leaflet with text, images of artefacts and coloured galleries. With suggestions printed on the front page of the Museum map '[t]here is no right or wrong way to visit the British Museum. Every time you visit, you discover something new'.³³⁵ Located at the terminated area of the west wing on the Museum ground floor, the Duveen Gallery can only be reached after a journey starting at the Central Great Court passing through a series of preceding gallery spaces of Ancient Egypt, Middle East to Ancient Greece and Rome. Cling to the main Museum body, the Duveen Gallery could only be approached by the general public through physical bodily movement on foot.

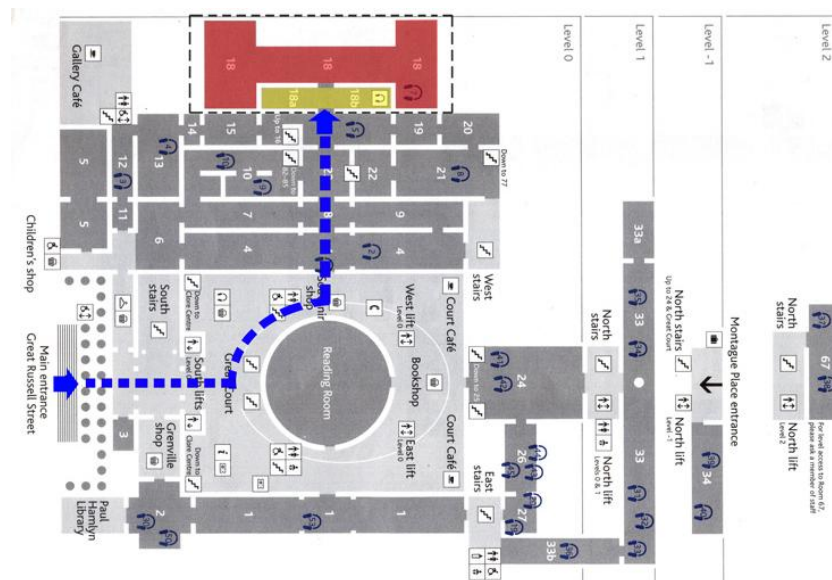


Figure 4.23 British Museum ground floor plan - blue: Circulation Route; red: Duveen Gallery; yellow: side galleries. (Source: Anon. *British Museum Map 2008*, edited by researcher)

³³⁵ Anon. *British Museum Map: colour plans and visitor information*, new enlarged ed. London: The British Museum Company, 2008.

4.2.2 Space Layout

Within all rectangular gallery spaces in the British Museum, the Duveen Gallery is an exception, which adopts its main Gallery as an I-shaped space rather than a rectangular space. With a major opening on the roof, the Duveen Gallery reveals an unexpected world to the visitors after walking through previous dimly lit galleries. Entering the main Gallery, with large capitalised texts engraved on the upper section of the wall directly facing the Gallery entrance, the theme of the Gallery is clearly indicated by the following content:

THESE GALLERIES
DESIGNED TO CONTAIN
THE PARTHENON SCULPTURES
WERE GIVEN BY
LORD DUVEEN OF MILLBANK
MCMXXXIX



Figure 4.24 Interior of the Duveen Gallery - text carved on the wall (Photo and edited by researcher)

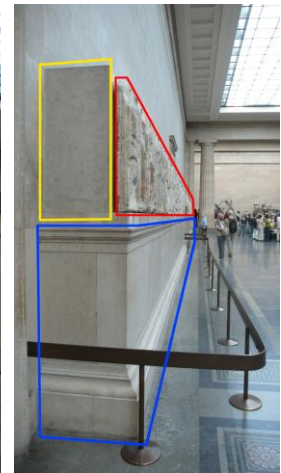


Figure 4.25 Interior of Duveen Gallery - red: Ionic Frieze; yellow: solid layer; blue: platform (Photo and edited by researcher)

Instead of being incorporated into the walls of the central Duveen Gallery, the Ionic Frieze was displayed on a specially designed platform which surrounds the lower section of the walls. It was a design intention at the Duveen Gallery that together the

solid layer of marble at its back, in addition to the thickness of the Ionic Frieze, would recreate the 600mm depth of the frieze in situ.



Figure 4.26 Interior of the Duveen Gallery - red: roof opening; blue: solid surrounding; yellow: blank architrave; pink: Doric column; brown: Door; green: Steps. (Photo and edited by researcher)

Compared with the central area, the dimensions of the two small Galleries at each end are much smaller. However, this does not influence their significance in adding another visual layer to the central space which hints to visitors that there is another space associated with the central area as soon as they enter the Gallery. Besides the obvious dimensional difference, the floor of the small Gallery is higher than the central Gallery, which could be distinguished by a flight of three steps in front of small Galleries. What is more, the installations of the Doric columns, the blank architrave above the Doric columns, and two wooden walls on another wall of the central Gallery all metaphorically add clues to penetrate the main theme of the Gallery space – a place typically designed for the Parthenon sculptures.

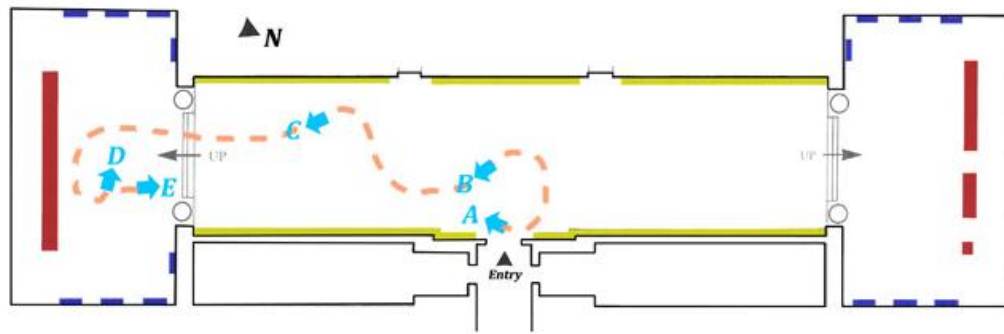


Figure 4.27 Plan of the Duveen Gallery - route for visiting (Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 91, edited by researcher)



Figure 4.28 Perspective A (Photo by researcher)



Figure 4.29 Perspective B (Photo by researcher)

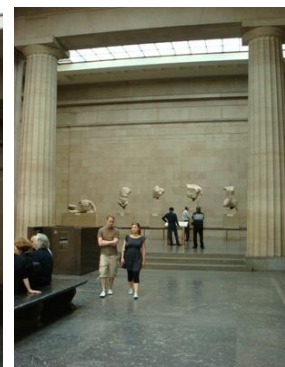


Figure 4.30 Perspective C (Photo by researcher)

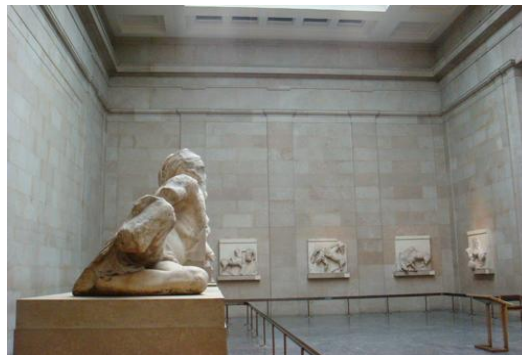


Figure 4.31 Perspective D (Photo by researcher)



Figure 4.32 Perspective E (Photo by researcher)

Observing the Ionic Frieze displayed in the central Duveen Gallery, visitors could naturally be drawn to the small Galleries where the pediments stand. The moment visitors reach the small Gallery, there are metopes displayed on short side walls surrounding the pediments for them to look at. The I-shaped Gallery is a layered space full of unexpected surprises which requires visitors to discover these on their own along their route in visiting the large and the small Galleries. Displayed in different areas in the Galleries, the sequence of visiting the Parthenon sculptures is visually

organised by the spatial positions of the Parthenon sculptures, which start from the Ionic Frieze, to the pediments, and finally ends at the metopes.

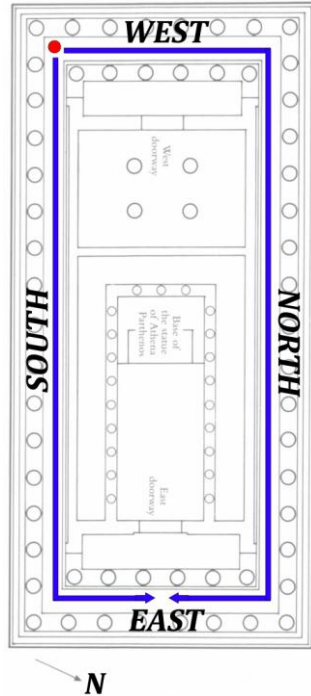


Figure 4.33 Original Sequence of Ionic Frieze on the Parthenon Temple - red: starting point; blue: two routes. (Source: Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 16, edited by researcher)

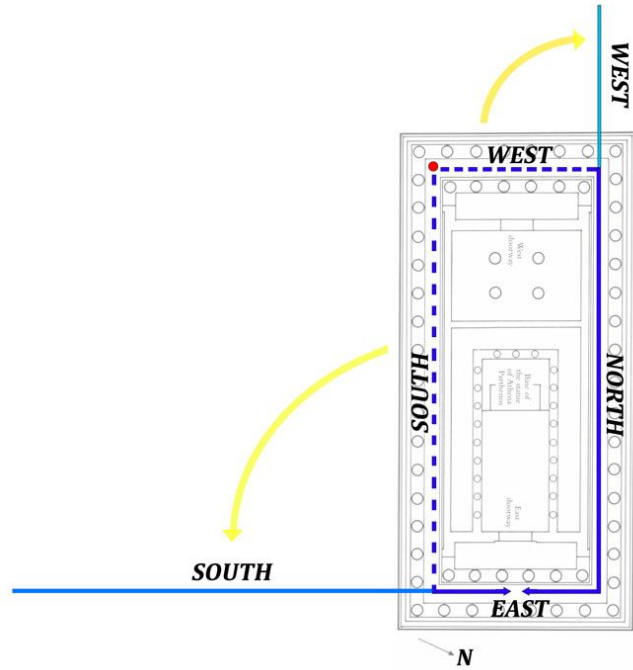


Figure 4.34 Diagram presents sequence change - Step One - The east and the north Ionic Frieze remain, the south and west Ionic Frieze rotates. (Source: edited by researcher)

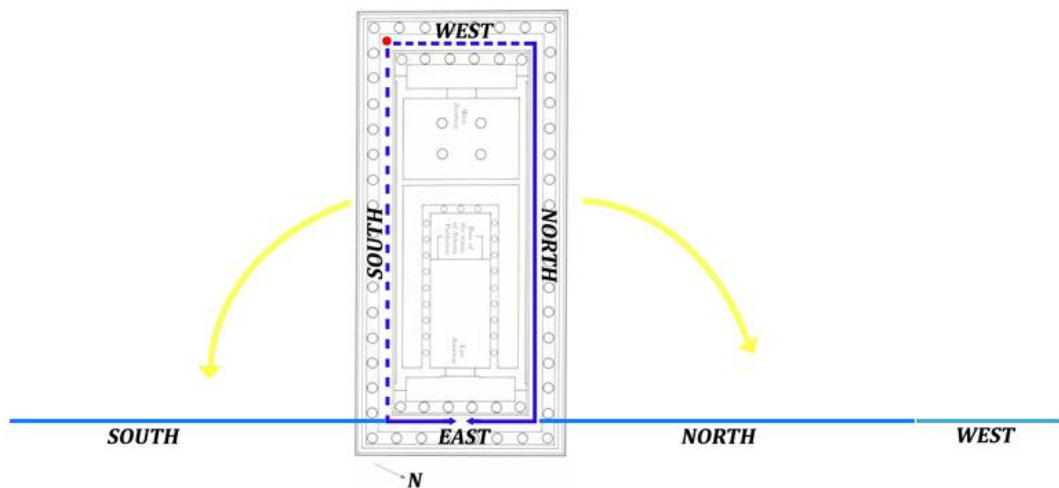


Figure 4.35 Diagram presents change - Step Two - The east Ionic Frieze remains, the north Ionic Frieze rotates. (Source: edited by researcher)

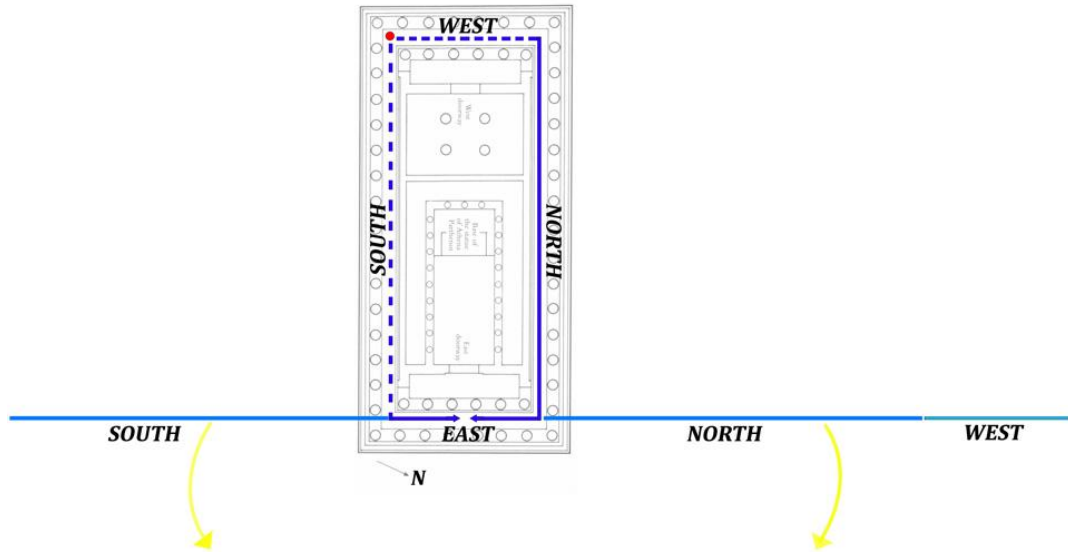


Figure 4.36 Diagram presents sequence change - Step Three - The east Ionic Frieze remains, other Ionic Frieze rotate. (Source: edited by researcher)

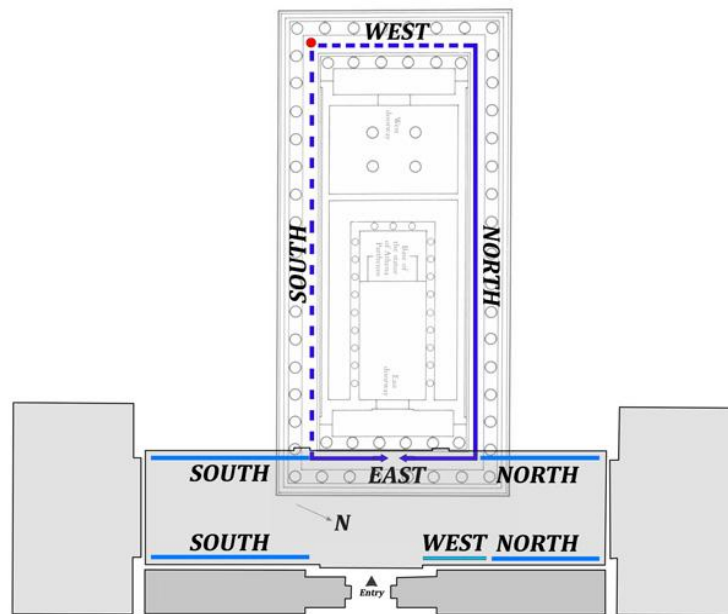


Figure 4.37 Diagram presents sequence change - Final Presentation of Ionic Frieze in the Duveen Gallery (Source: edited by researcher)

Without displaying in its original order and sequence, the present sequence of the Ionic Frieze can be understood as follows: on the wall facing the main entrance of the Duveen Gallery, the east Ionic Frieze, which is the most significant part, is displayed in the centre area; following the original starting point of the two routes depicting the original sequence of the Ionic Frieze - the south face - is displayed on the left wall to

the central east Ionic Frieze and the opposite wall. The west and the north faces are displayed on the right wall next to the central east Ionic Frieze and the opposite wall. Different from the original sequence, this arrangement presents the Ionic Frieze as the following new sequence: assuming the original east face remains in place, the south face is rotated anticlockwise with its southeast point unchanged; however, it needs to be bent twice after rotating 90 degrees in order to become a half enclosed wall. The same idea is used for another route of the Ionic Frieze which is depicted on the west and north faces; the west and the north faces are together rotated clockwise, the northeast point still remain the same. The north face needs to be bent twice after rotating 90 degrees in order to become the other half of the enclosed wall. Therefore, the original rectangular sequence of the Ionic Frieze is being transformed into another rectangular sequence which is perpendicular to the original one. Then, on the grounds of the content depicted on the south and the north faces of the Ionic Frieze, some of this content is allocated to the long walls, which offer the opportunity to remove the short walls in order to connect the large and the small Galleries as a whole.

From the above analysis, it is obvious that the original sequence of the Ionic Frieze has been rearranged in the new Gallery. As discussed in Chapter Three, on the Parthenon Temple, the frieze could only be seen outside the cella one face at one time.³³⁶ In other words, the story depicted on each face of the frieze - the west face depicts the preparation of the festival, the north and the south faces depict the procession, and the east depicts the dedication of the peplos - could only be viewed singularly. In the Duveen Gallery, however, with a new two-sided sequence transformed from the original four-sided sequence of the frieze, all four sides of the frieze could be viewed altogether within a space. Moreover, this new interpretation of the spatial sequence does not disrupt the symbolic meanings contained by the east frieze as the most important part depicting the Panathenaia festival. The east Ionic Frieze is retained in the most important location directly facing the entrance of the Gallery space. Thus, the new interpretation of the spatial sequence of the Ionic Frieze offers the general public

³³⁶ See 3.2.2 Medium of Spatial-storytelling, pp. 105-107.

multiple perspectives for understanding various stories depicted on different faces of the Ionic Frieze. Meanwhile, the original four faces of the frieze could be viewed as a continuous ribbon, or as a whole, within the Gallery space.

As also discussed in Chapter Three, the Ionic Frieze is carved onto the upper section of the wall of the Parthenon Cella.³³⁷ Different from the Ionic Frieze, most of the metopes were carved on the ground and then installed onto the exterior wall of the Parthenon Temple.³³⁸ However, the pediments depicting the birth story of Goddess Athena and the stories of the war between Athena and the other gods were originally carved in the round and displayed as perfectly as they could be in the art shop before being installed in the Temple.³³⁹ Therefore, in the Duveen Gallery, the metopes are hanging on the side walls of the small galleries, and the pediments are displayed in the central area of the small Galleries on pedestals for visitors to look at them in the round. Hence, compared with its original context of the Parthenon Temple, the Parthenon sculptures are all displayed reversely in the Duveen Gallery.

In the main Gallery, the original Ionic Frieze is protected by a metal railing approximately 600 millimetres above the Gallery floor; thus visitors can only see the Ionic Frieze from a short distance away, without being able to stand too close to it. There are probably two reasons for installing the fence in front of the Ionic Frieze: firstly, in order to prevent visitors touching the Ionic Frieze, the fence clearly draws the boundary between the original marble material and the view area, without the need to install a sign asking people not to touch the Ionic Frieze. Even though it obviously obstructs the general public in seeing the original artefacts intimately, the installation of the fence however cannot be evaluated as a skilfully design. On one hand, the fence protects the artefact from being touched by the visitors; on the other hand, it seems that the original artefacts rigidly 'refuse' to communicate with the general public for the reason that there is a physical distance between the artefacts and the visitors. The

³³⁷ *ibid.*, p. 105.

³³⁸ *ibid.*, p. 105.

³³⁹ *ibid.*, p. 105.

museum professional can seek for other sophisticated ways in spatial design to intentionally direct the general public to interact with the Ionic Frieze, instead of installing a single element between both. Secondly, because the Ionic Frieze is a continuous visual presentation consisting of a number of slabs, visitors need to be directed in such a way as to look at them from a distance rather than from close up. If the visitor views the Ionic Frieze from a distance, they would realise that there are various relationships between the figures which would help them to understand the layered depiction of the Panathenaia activities. Beside the railings, there are two groups of benches in the central Gallery which offer opportunities for visitors with audio guides who prefer to sit to listen to the stories of the Ionic Frieze. Without seeing any traces of the original context, visitors could also experience the detailed stories depicted on the marble sculptures while staying and listening.

4.2.3 Lighting

The lighting scheme of the Duveen Gallery consists of two parts - natural light and artificial light. Both of these two ways of lighting come from the ceiling of the Galleries. The major opening of the ceiling is made of double frosted glass. The solid surrounding area is a concrete structure filled with wood with stucco. This surrounding area, as mentioned in the first section, was designed primarily in the same style of the marble roof above the Ionic Frieze which comprised a series of parallel grids. However, the roof was finally constructed as a line of single squares, which relatively influence perceptions of the original lighting condition above the Ionic Frieze.



Figure 4.38 Interior of the Duveen Gallery (Photo by researcher)



Figure 4.39 Roof above the Ionic Frieze on the Parthenon Temple
(Source: Tournikiotis, P. *The Parthenon and Its Impact in Modern Times*, 1994, p. 82.)

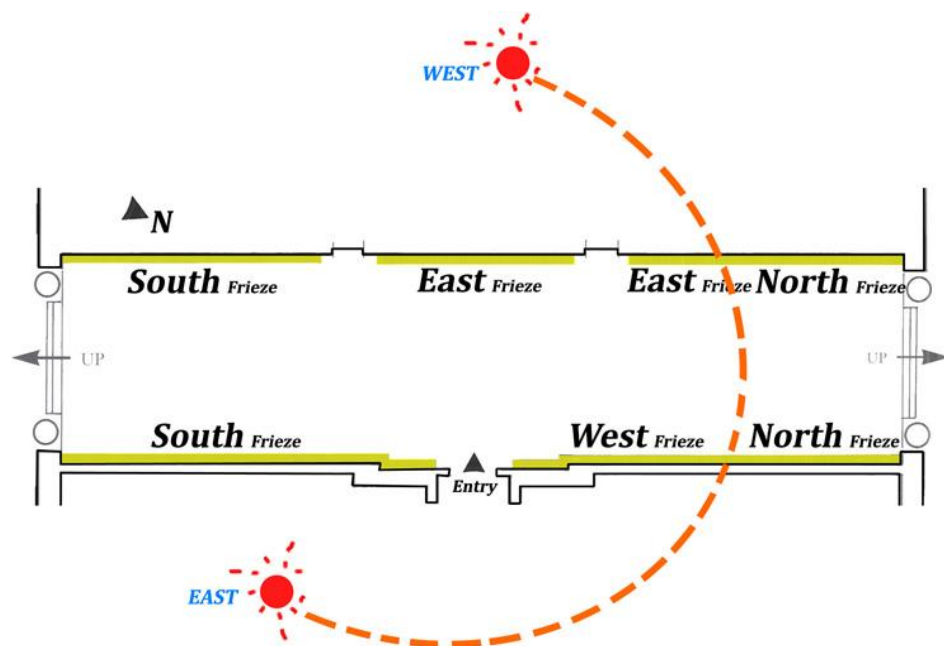


Figure 4.40 Diagram presents the route of the sun projecting sunlight on Ionic Frieze (Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 91, edited by researcher)

Instead of passing through the solid material, direct sunlight could be filtered into gentle natural light through the glass opening. Along the four sides of the glass opening, small artificial lights are installed to adjust the brightness of the central Duveen Gallery. The lighting scheme of the small Galleries follows the same principle. Because the central Gallery has a larger glass area than the smaller Galleries, the

central Gallery is always brighter, and gives the impression of more space, than the small Galleries. If the dimensional difference distinguishes the central Gallery as more important than the small Galleries, in brightening the space further, the lighting scheme helps the central Gallery to claim its importance.

Originally, the Ionic Frieze was behind the metopes on the Parthenon Temple. Therefore, in order to see it, people in ancient times needed to rely on the light that filtered down through the roof above the Ionic Frieze rather than the light coming from the colonnaded space. Made of marble, which is the same material as the Ionic Frieze, the roof above the Ionic Frieze functioned as the medium to mediate strong sunlight. Because the marble material used for constructing the Parthenon Temple is very light, therefore, it would not be difficult to imagine that the glass ceiling of the central Gallery in the Duveen Gallery is attempting to function as the original marble above the Ionic Frieze. The light of the Gallery changes slowly during the day. In the morning, the light of the sun passes through the glass roof and gently projects onto the east Ionic Frieze. As the sun rises from east to west, in the afternoon, the light projects onto the west Ionic Frieze. During the daytime, the central Gallery is immersed in gentle sunlight. The movement of the sun also exerts a slight influence on the Ionic Frieze. Even though the solid area surrounding the glass opening could not compare with the original marble, the glass opening however metaphorically recreates the original condition of the Ionic Frieze with the sunlight on the Parthenon Temple.

4.2.4 Material

Generally speaking, the materials used for constructing the Duveen Gallery are simple. All the walls of the Gallery are made of marble, the same material as the Parthenon sculptures. During the time of designing and building the Gallery, the Parthenon sculptures had already stayed in London for more than 200 years. Shipped from Athens and then cleaned inappropriately by acid, their material was more or less destroyed. The marble used for building the Parthenon Temple came from Pentellicus

Mount. Its colour is flawless white with a uniform and faint yellow tint which makes it shine with a golden hue under sunlight. Therefore, the marble selected to construct the walls in the Duveen Gallery only matches with the current marble condition; however it could never reflect the original marble condition of the Parthenon Temple and the Ionic Frieze. The roof of the Gallery is a concrete structure; while the central roof is double glass. The white surrounding area is wood covered with stucco. The floor is made of travertine.

Standing in the central Gallery, the materials used for constructing the Gallery space are in harmony. Even darker than the original marble which could never be seen from these sculptures, the entire tonality of the materials could be regarded as dark beige. The significance of the original Ionic Frieze is not only about depicting the Panathenaia procession and dedicating the peplos to the Goddess Athena, but is also a respectful interpretation of the power that the Goddess possessed and commemoration of Athenians' respect for their Goddess. Originally carved on the wall of the Parthenon cella, the current design of the central Gallery space could therefore be regarded as an effective background for the Ionic Frieze with both the Ionic Frieze and the wall seen in the same material. Hence the wall of the Duveen Gallery, especially the central Gallery, successfully reflects this important feature in using the same material as the 'original' Ionic Frieze.

4.3 Communicating in the Museum: Audiovisual Texts Translate Significant Meanings of the Ionic Frieze

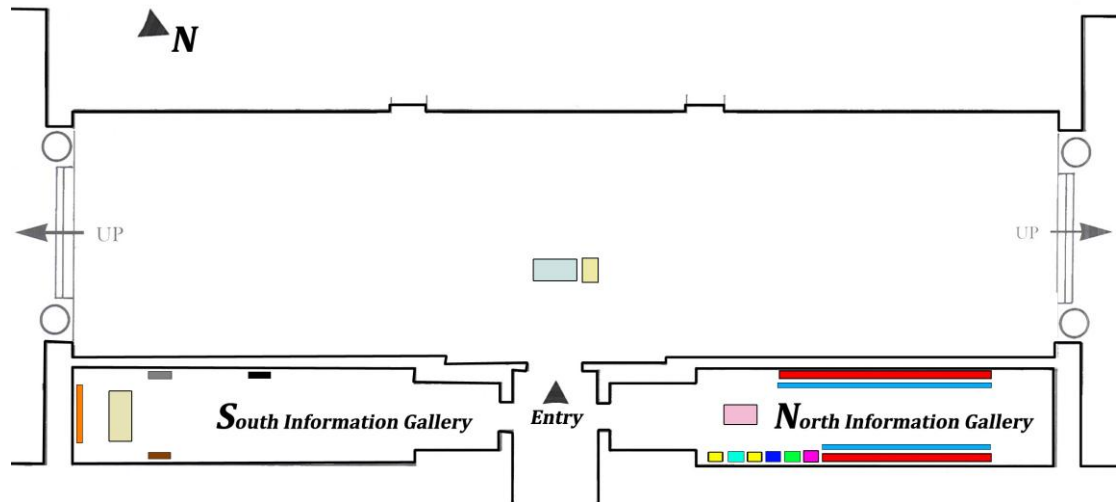


Figure 4.41 Audiovisual Interpretation on interpreting the Ionic Frieze

In the North Information Gallery: cyan: Text Board of ‘THE PANATHENAIA WAY’; dark blue: Text Board of ‘PLAN OF THE PARTHENON’; purple: Text Board of ‘THE PARTHENON SCULPTURES’; green: Text Board of ‘WEST FRIEZE OF THE PARTHENON’; red: Casts of Complete West Ionic Frieze; blue: Small text board below casts; pink: Touch Model of the Parthenon Temple

In the South Information Gallery: orange: Silent Film Presentation; brown: Text Board of Film Presentation; grey: Image Board of First Film Presentation; black: Text Board of Ionic Frieze in relation to Other Significant Artefacts in the British Museum

In the Central Gallery: light blue: Central Text Board; beige: Vertical Text Board

(Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 91, edited by researcher)

4.3.1 On-site

The museum offers multimedia audio guides to their visitors. Available in 10 languages, visitors can use the audio guide to gain a detailed insight into over 200 objects in 61 galleries. Followed by the instructions given by the audio guide such as audio commentary and visual images, galleries and highlight tours, visitors could easily find the location of the Duveen Gallery.

Standing in the Duveen Gallery, specific instructions of the audio guide will also direct visitors to look at the sculptures in a detailed and sequenced manner. Besides

interpreting the metopes and the pediments, the content of the audio guide mainly focuses on interpreting the Ionic Frieze. In order to depict the original Panathenaia festival, special audio effect is contained within the audio interpretation in the audio guide; for instance, the sound of horses galloping and whinnying indicates the procession, the music indicates the dedication of the peplos to the Goddess, and so on. Without seeing these actual scenes in person in ancient times, such audio effects could definitely offer an on-site experience of ‘watching’ the events depicted in the Ionic Frieze in the Duveen Gallery space for the visitors. The content of the audio guide not only introduces original sculptures in the main gallery, it also introduces displays in the information Galleries. Compared with the dimension of the main Galleries, the information Galleries are very dim and compacted and it is likely that they may be ignored by some visitors; however, with the help of an audio guide, visitors could be led to see the displays in the information Galleries.

Listening to the audio guide through headphones, visitors could either walk in the Galleries or sit on the benches in the middle area of the central Gallery, observing the Ionic Frieze individually and comprehensively. The audio guide offers visitors a very good opportunity to communicate with the Ionic Frieze privately, and to understand its stories effectively.

The museum does not offer the service of tour guides; any tour guides are independent. Based on their professional knowledge, the tour guide will normally lead visitors to see the significant Ionic Frieze and other sculptures.

4.3.2 In the North Information Gallery

With six text boards standing side by side next to the entrance interpreting the historical background on the Parthenon Temple, the north information Gallery could be regarded as the starting point of visiting the displays in the two information Galleries (figure 4.42). All six text boards are presented in the same size, with clear

Latin numerals and capitalised text for the titles.



Figure 4.42 Interior of the North Information Gallery (Photo by researcher)

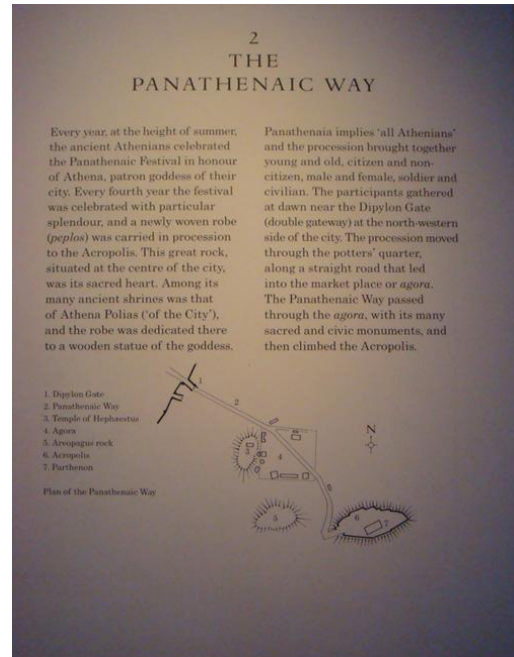


Figure 4.43 Text Board of THE PANATHENAIA WAY (Photo by researcher)

Followed by a very short introduction on the Parthenon Temple and a Duveen Gallery plan presented with displays on the first text board, the second text board is entitled 'the Panathenaia Way' (figure 4.43). The content of the second text board is divided into text in the upper section and an image in the lower section.

Within the text, important aspects such as the significance of the Panathenaia, the whole route, and the characters participating in the procession are all well interpreted. Special terms such as 'peplos' and 'Polias' are presented either as a term followed by the explanation, or as the explanation followed by a term. For example, the term peplos is presented in brackets with its explanation - 'a newly woven robe' - presented in the text; on the contrary, the Polias is presented in the text with the explanation - 'of the city' - followed in brackets. Even though there is no highlight in the text, the interpretation helps visitors to develop understanding when they read it. With numbers presented on various locations along the route and explanatory text of the locations,

the image presented in the lower section clearly indicates the site plan of the original route of the Panathenaia procession, starting from the Dypylon Gate situated in suburban Athens and leading to the Parthenon Temple.

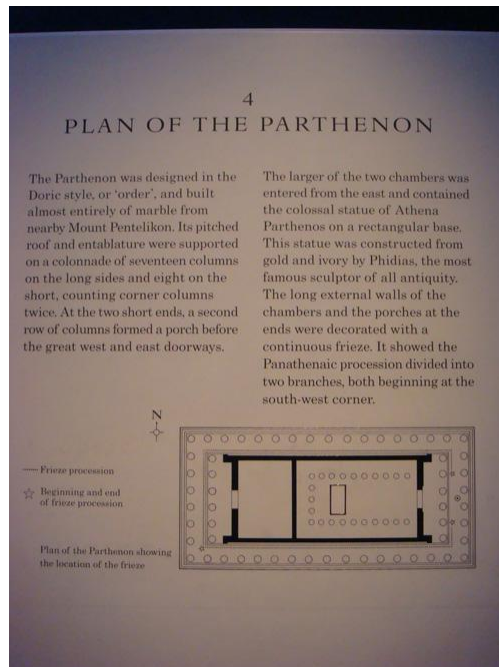


Figure 4.44 Text Board of PLAN OF PARTHENON (Photo by researcher)

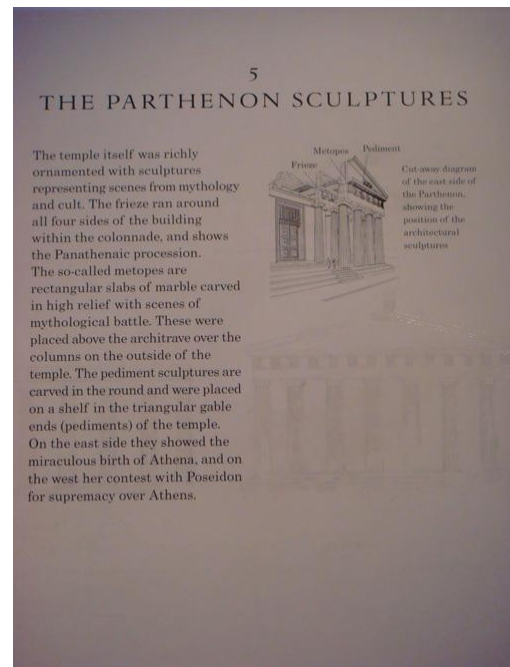


Figure 4.45 Text Board of THE PARTHENON SCULPTURES (Photo by researcher)

The fourth text board focuses on introducing the structure and the functions of the Parthenon Temple (figure 4.44). Along with the plan of the Temple presented on the lower section of the text board, the sequence of the Ionic Frieze is depicted through the plan. With text explanation and image interpretation, the significance of the Ionic Frieze is translated from the Panathenaia festival and its original urban route to its representation on the Parthenon Temple.

Entitled 'The Parthenon Sculptures', the content of the fifth text board addresses the theme and original locations of three main parts of the Parthenon sculptures - the pediments, the metopes and the Ionic Frieze (figure 4.45). With an image of the perspective section of the east side of the Parthenon Temple presented on the upper right corner of the text board, visitors could easily understand the original location of

each part of the sculpture. Therefore, the significance of the Ionic Frieze is translated one step further from plan to space.

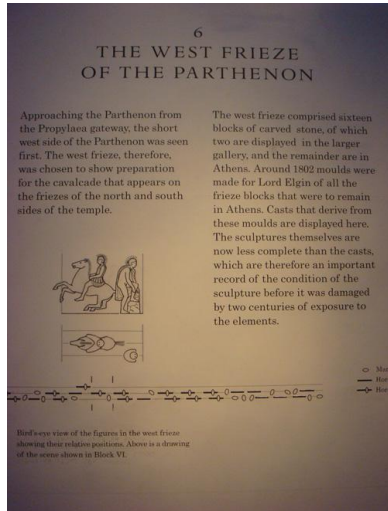


Figure 4.46 Text Board of THE WEST FRIEZE OF THE PARTHENON (Photo by researcher)

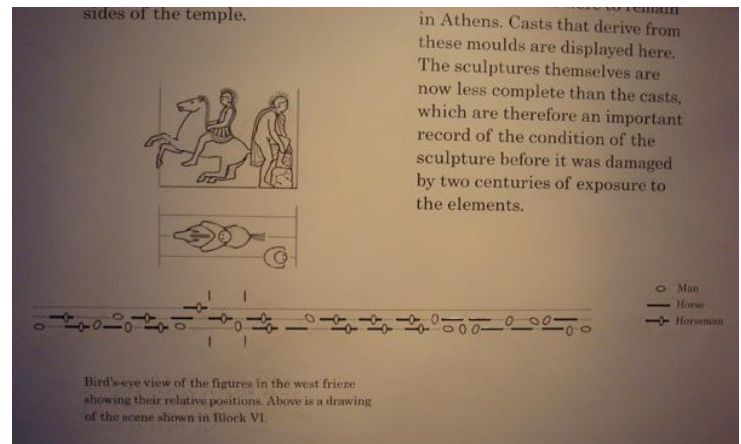


Figure 4.47 Image presented on the text board - Three signs on the right corner are designed for symbolising different figures presented on the Ionic Frieze (Photo by researcher)

Following five introductory text boards, the sixth text board unfolds a detailed and sequenced interpretation on the plaster casts introduced above, which were derived from the moulds made for Elgin around 1802 on the Parthenon Temple (figure 4.46). This detailed and sequenced interpretation on the replicas of the complete west Ionic Frieze comprises a general text board which is entitled 'THE WEST FRIEZE OF THE PARTHENON', the complete casts of the west Ionic Frieze, and continuous small text boards below the casts.

With only two blocks of the original west Ionic Frieze standing in the central Duveen Gallery, the general text board explains the relationship between the original blocks in the central Gallery and the replicas displayed in the information Gallery. Take one part of the text interpretation on the general text board for example:

The west frieze comprised sixteen blocks of carved stone, of which two are displayed in the larger gallery, and the remainder are in Athens. Around 1802

moulds were made for Lord Elgin of all the frieze blocks that were to remain in Athens. Casts that derive from these moulds are displayed here. The sculptures themselves are now less complete than the casts, which are therefore an important record of the condition of the sculpture before it was damaged by two centuries of exposure to the elements.

Before Elgin removed the sculptures from the Parthenon Temple, he originally hired artists to take drawings and same-size moulds of the Parthenon sculptures. Therefore, the casts displayed in the information Gallery are replicas of the moulds rather than the original sculptures. The significant stories of the west Ionic Frieze are not only told through the original west Ionic Frieze displayed in the main Duveen Gallery, but mainly through these casts which could be regarded as the precious record for the original fragmentary west Ionic Frieze. The cast offers a good opportunity to understand the significance of the Ionic Frieze in terms of a detailed and prominent aspect - the relative spatial position of the figures preparing for the cavalcade that are depicted on both the west Ionic Frieze and some of the north Ionic Frieze. Based on the key ideas of presenting both the snapshot image and the bird's-eye view image of the plaster presentation, the underlying significance of the west Ionic Frieze is translated into a readable level (figure 4.47). With three simple signs symbolising three different figures presented on the plaster Ionic Frieze: the horse, the man, and the horseman, visitors are able to ascribe their own meanings to each cast when they start to look at the casts and the small text boards below.

Displayed approximately 900 millimetres above the Gallery floor, the small text boards are located in front of each cast (figure 4.48). With written text on the left hand side and visual image on the right hand side, the small text board is in A4 size. The key messages of the content of the written text are interpretations on how many numbers of the figures are depicted on each slab, what is each figure's identity, and what they are doing at that moment. Take one slab for example:

Block III

As in block XII, so here we see three figures - including one boy - around a horse.

Like figure 24 on block XII, this boy holds something in his hand probably a staff. On the far side of the horse, a bearded marshal raises his right arm as he rushes forward, perhaps to signal an instruction or to take hold of the headstall of the apparently nervous animal. Figure 4, who must be the horseman, perhaps holds the end of a ribbon with which he is binding his head. If so, this was painted in.



Figure 4.48 Cast of West Ionic Frieze

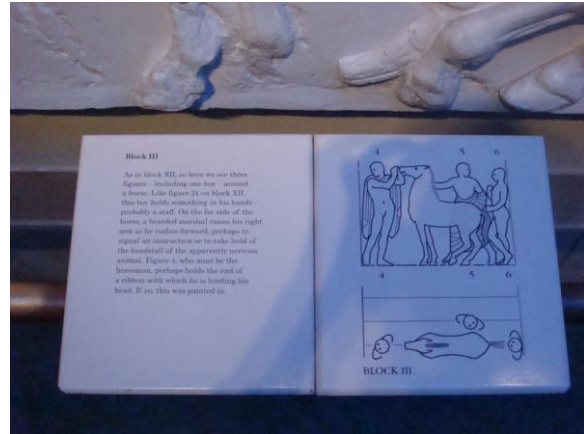


Figure 4.49 Small text board of casts (Photo by researcher)

The visual image of the slab presented on the right hand side of the text board consists of two parts (figure 4.49). The upper part is a snapshot of the plaster Ionic Frieze. Different from the gentle outline formed by the plaster material, the visual interpretation presents the story in a clear and intentioned way. The outline of each figure is clearly presented in black on the white text board. The lower part shows the relative positions of each figure from a bird's-eye view. Therefore, the stories depicted on the original marble Ionic Frieze are primarily translated parallel into moulds made around 1802, and from moulds into the plaster replicas of the west Ionic Frieze; then from replica into snapshot image and bird's-eye view image, and finally into written text. Even though significant meanings are translated through the different levels, when visitors are viewing the display, they probably experience different interpretations of it.

Therefore, through the example given above, the effectiveness of audiovisual texts in describing artefacts needs to be achieved through the process of translating meanings from one level to another level. The word 'level' here means different ways of

interpretation of text in meeting visitors' level of understanding. When each level of interpretation is connected with the others, visitors are more able to understand the underlying meanings of the artefacts. According to the museum design group, the replica of the west Ionic Frieze was primarily intended for visually impaired visitors to touch, along with using the audio guide. In fact, this display offers great opportunities for promoting understanding of the Parthenon sculptures to the widest range of public visitors through a seamless combination of different audiovisual interpretations.

Even though the small text board contains written text, the text takes on a personal tone, in phrases such as 'here we see'. Therefore, along with reading the written text, visitors could feel as though someone is actually telling them stories. The distance between the artefacts and the visitors is mediated by such positive attitudes of communication. The artefacts could communicate with the visitors more effectively because the obsolete messages they contained are interpreted in the manner of a dialogue within a situation rather than through a single-sided presentation.

4.3.3 In the South Information Gallery

In the south information Gallery, there is a film presentation displayed on the end wall of the Gallery (figure 4.50). The film presentation includes two soundless parts which together last about 15 minutes (figure 4.52). The content of the first film is interpretations of how different parts - the metopes, the Ionic Frieze, and the pediments - were placed on the Parthenon Temple. The interpretation of the Ionic Frieze concentrates on the significant meanings of the north Ionic Frieze. Depicted on the marble as continuous figures of chariots and horsemen, the animation analyses the sequences of constitutive layers of the figures on the north face of the Ionic Frieze, which helps to translate the meanings from overlapped marble depiction into highlighted perspectives.



Figure 4.50 Interior of the south information Gallery (Photo by researcher)

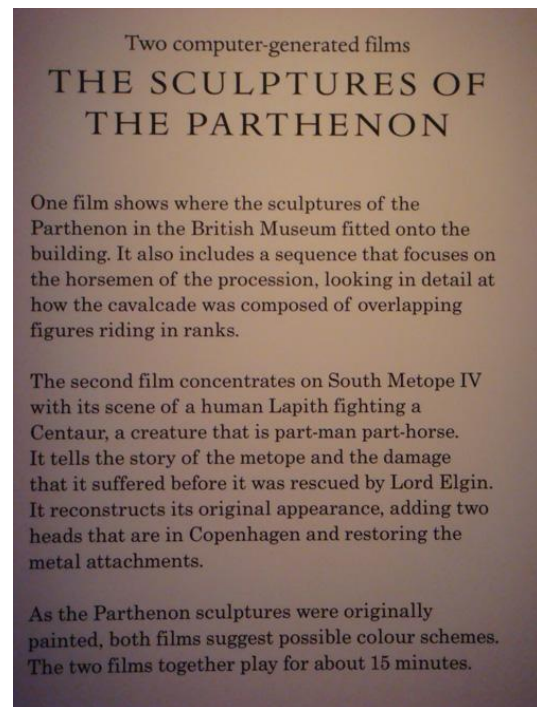


Figure 4.51 Text board of the film presentation (Photo by researcher)

In addition to the film presentation, there is a separate text board interpreting the content of the film (figure 4.51). The content of the text board is as follows:

Two computer-generated films

THE SCULPTURES OF THE PARTHENON

One film shows where the sculptures of the Parthenon in the British Museum fitted onto the building. It also includes a sequence that focuses on the horsemen of the procession, looking in detail at how the cavalcade was composed of overlapping figures riding in ranks.

The second film concentrates on South Metope IV with its scene of a human Lapith fighting a Centaur, a creature that is part-man part horse. It tells the story of the metope and the damage that it suffered before it was rescued by Lord Elgin. It reconstructs its original appearance, adding two heads that are in Copenhagen and restoring the metal attachments.

As the Parthenon sculptures were originally painted, both films suggest possible colour scheme. The two films together play for about 15 minutes.

The themes and intentions of both films are clearly presented through the above text.

The first film mediates the distance between the isolated sculptures and their original context. In addition, it emphasises that the film presentation focuses on the significant detail of the Ionic Frieze through the text. 'It also includes a sequence that focuses on the horsemen of the procession, looking in detail at how the cavalcade was composed of overlapping figures riding in ranks'.³⁴⁰ The statement of the colour theme on the Parthenon Temple mentioned at the end could also hint to visitors that the Parthenon sculptures were originally painted in colours. The second film successfully interprets the colour theme on one slab of metopes which effectively bridges the distance between the fragmentary sculptures and its original coloured condition.

In addition to this text board introducing the content of the film presentation, in order to emphasise the sequences of the overlapped figures, there is an image board of the content of the first film presentation displayed on the wall next to the animation (figure 4.53). If the general text board introducing the content of the film presentation mentioned above emphasises the significance of the Ionic Frieze by text, then the image board again emphasises the same significance of the Ionic Frieze by image. Therefore, the audiovisual interpretation allows a range of significant meanings of the Ionic Frieze to be constructed and conveyed: as symbols of the Panathenaia festival; as evidence of contemporary detailed marble carving skills. Also, the audiovisual presentations which interpret significant messages is varied from text interpretation into visual film presentation and finally into image. The combination of the text board, the film presentation and the image board successfully helps to interpret significances of the Ionic Frieze, not only in translating meanings, but also in meaningful ways of tangible presentation.

³⁴⁰ Text Board 'THE SCULPTURES OF THE PARTHENON', the Duveen Gallery, British Museum.

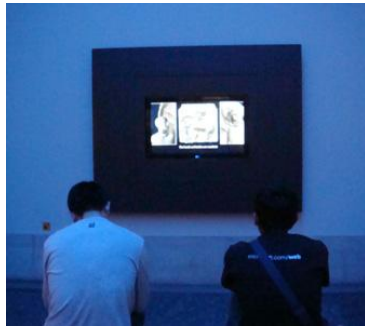


Figure 4.52 Film Presentation



Figure 4.53 Image board

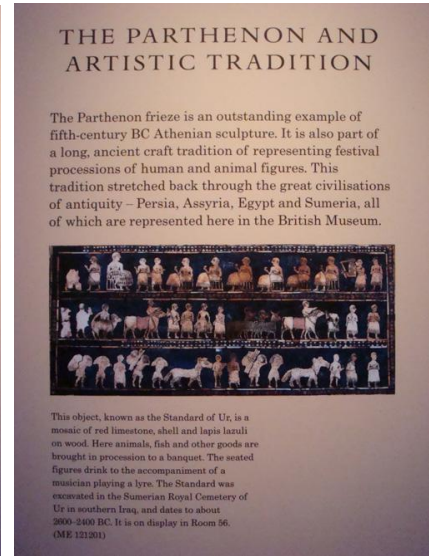


Figure 4.54 Text Board of Ionic Frieze in relation to other significant artefacts in the museum (Photo by researcher)

Removed from the Parthenon Temple and displayed in the British Museum, is there any relationship between the Ionic Frieze and other artefacts in the British Museum? There is one text board in this Gallery interpreting the relationship between the Ionic Frieze in relation to some other significant artefacts in the British Museum (figure 4.54).

The content of the text board is as usual divided into two parts. The upper part is the text, and the lower part is a coloured image with a short explanatory text below. The text introduces the tradition of the ancient craft of representing festival processions of human and animal figures which had already be seen on the Ionic Frieze. The following text introduces how this tradition stretched back to other ancient civilisations, such as the Persian and Egyptian. The coloured image presented in the lower section depicts another significant artefact with representations of human and animal figures. The short text below the colour image introduces the stories depicted on the artefact, the identities of different human and animal figures, and its location in the British Museum. Hence, symbolic cultural meanings contained by the Ionic Frieze are interpreted not only based on their significance in relation to the Parthenon Temple

or the Panathenaia festival, but also in relation to the origin and significance of this traditional representation. Messages of these significant artefacts are not separate or hidden any more, but are gradually revealed and developed into continuity over time.

4.3.4 In the Main Gallery



Figure 4.55 Central Text Board and Vertical Text Board in the Main Gallery (Photo by researcher)



Figure 4.56 Central Text Board (Photo by researcher)

The central text board is displayed in the central area of the main Duveen Gallery, which could be regarded as the focal point for visitors to enter the Gallery (figure 4.55). Approximately one metre above the Gallery floor, the content of the text board contains the information on the Parthenon Temple and the Ionic Frieze (figure 4.56). Besides the text board, there is a vertical text board with two small boxes filled with leaflets standing nearby.

The vertical text board explains the historic issues of the Elgin Marbles. It is presented in the form of five questions: Why are the Parthenon Sculptures always in the news?; What is the Parthenon and how did the sculptures come to London?; Where can the surviving sculptures from the Parthenon be seen?; What is the Greek Government asking for, and why?, and What is the British Museum's response? The leaflets contained in the boxes answer all these questions. If the general text board adopts a descriptive way to interpret the general significance of the Ionic Frieze, the vertical text board then adopts a dialogic approach to answer the questions relating to the cultural and political issues of the Ionic Frieze.



Figure 4.57 Text Board below the Ionic Frieze - red: roman number; blue: Latin number. (Photo and edited by researcher)

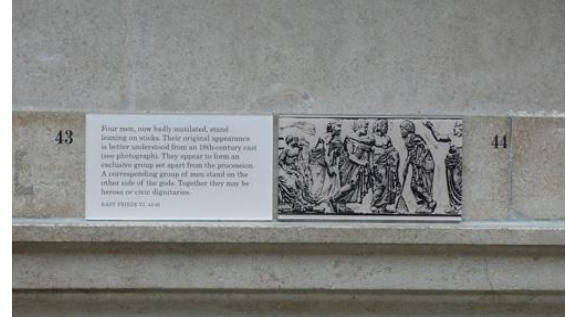


Figure 4.58 Detail of text board (Photo by researcher)

In the main Gallery, there is also a small text board presented below each original Ionic Frieze (figure 4.57). In order to make visitors understand the identity and activities of the figures depicted on the Ionic Frieze, there are Roman and Latin numerals presented below the frieze. The Roman numeral stands for the number of the slab in its original sequence and the Latin numeral stands for the figures presented on the marble. The majority of the text boards below the Ionic Frieze are written texts without images. Only a few sections of the Ionic Frieze have images below them.

The content of the text board below the Ionic Frieze is mainly an introduction to the identity and events depicted on the marble. With numbers presented below the marble, the content of the text board does not effectively connect the number with the marble Ionic Frieze. Take one small text board of the east Ionic Frieze for example (figure 4.58):

Four men, now badly mutilated, stand leaning on sticks. Their original appearance is better understood from an 18th-century cast (see photograph). They appear to form an exclusive group set apart from the procession. A corresponding group of men stand on the other side of the gods. Together they may be heroes or civic dignitaries.

From the above text, it can be inferred from the words ‘appear to’ and ‘may be’ that there is some uncertainty and speculation when curators are conducting the interpretations of the marbles. Hence, the content of the text board is rough. It does not reflect the numbers below the marble and their indication of marble presentation. By using the word ‘four’ to indicate the combined figures, the numbers presented below the marble Ionic Frieze are less effective. Even though there is an image next to the text board, with six figures presented on the image - one angel on the left, four men in the middle, and one man on the right - it is still difficult to determine the relationship between the image and the marble presentation because there is no number or highlight presented on the image. If there are four figures on the marble presentation, why are six figures presented on the image? The content of the image neither coincides with the content of the text board nor with the number presented below the Ionic Frieze. The image could be more effective if it is highlighted. However, it is not wise to have numbers in colour or highlighted images below the Ionic Frieze because it would destroy the entirety of the elevation of the Ionic Frieze in the central Duveen Gallery. The small text board below the Ionic Frieze appears as a series of patches along the wall.

As mentioned before, the Ionic Frieze could not be seen at close quarters because of the continuous railings installed in front of them in approximately 600 millimetres above the floor. Therefore, with the small size text presented on, the text board below each Ionic Frieze is difficult to be read.

Conclusion

As discussed in 4.2, in the main Gallery, the medium of space for interpreting the Ionic Frieze consists primarily of media of circulation, space layout, lighting and materials.³⁴¹ Even though audiovisual texts such as audio guides and text boards are also employed in the main Gallery for interpreting the frieze, the medium of space is more significant than the medium of audiovisual texts as it offers an effective

³⁴¹ See 4.2 Building and Content: The Duveen Gallery and the Ionic Frieze of Elgin Marbles, pp. 133-144.

background for the embodied experience of the Ionic Frieze. The successes of the space could be viewed in the use of the same material of the Ionic Frieze in the walls; and in the roof opening, imitating the original lighting conditions above the Ionic Frieze. The application of the audio guide is also an excellent way of helping visitors to communicate more effectively to the Ionic Frieze. However, the significance of the written and visual text interpretation seems to be dispersed. As discussed in 4.2.2, the Ionic Frieze is displayed in a new two-sided sequence rather than its original four-sided order so that the original sequence would be really difficult to be understood and imagined in the current situation. Therefore, even though the text board in the central area of the central Gallery presents the plan of the Parthenon Temple to introduce the original four-sided sequence of the Ionic Frieze, it would be impossible to relate the current sequence of the Ionic Frieze with the original sequence without the help of the audiovisual texts. Likewise, the small text board below the Ionic Frieze only tells the stories of each block rather than in original single-sided sequence or in four-sided sequence. The location of the railings, on the contrary, intentionally leads visitors to view the Ionic Frieze in its newly arranged single-sided and two-sided sequences. Therefore, compared with the audio guide, the written and visual text interpretation does not help to convey the meanings of the Ionic Frieze as effectively.

In the information Galleries, combined with the visual text interpretation such as the film presentation and the casts of the west Ionic Frieze, the written text plays a significant role in translating the meanings contained by the Ionic Frieze. The meanings are not only interpreted through the content of the written text but also by the cohesion of the written text with other interpretations, such as visual interpretation. In other words, the style and the content of each text interpretation, together with the spatial arrangements between different text interpretations, contribute to translating symbolic meanings of the Ionic Frieze from the general level to the detailed level. Examples are the general text board of the west Ionic Frieze in the north information Gallery, the casts, and the small text board below the casts. Their combination

effectively conveys the significant meanings contained by the west Ionic Frieze depicting the preparation of the Panathenaia festival from the general level to the detailed level. Visitors are able to choose to communicate with the artefacts either in their general or individual meanings. What is more, the text board interpreting the traditional representation of human and animal figures potentially connects the Ionic Frieze with other museum artefacts.

4.4 Summary - Scales of Context

4.4.1 Ionic Frieze as a Two-sided Sequence and the British Museum

As mentioned above, the Duveen Galley is located at the terminated area in the west wing of the British Museum. The only public access to the Gallery is by walking from the Great Court to the end of the west wing. Hence, could the experience of passing through the galleries before reaching the Duveen Gallery be considered as a journey through time? After viewing and engaging with hundreds of artefacts, the Duveen Gallery, full of unexpectedness, awaits the visitors at the end.

It is acknowledged that the sequence of the Ionic Frieze in the Duveen Gallery has been rearranged. As discussed previously, the dimension of the central Gallery is much larger than the transeptal Galleries where the metopes and the pediments are displayed.³⁴² With a larger roof opening, the central Gallery is brighter than the transeptal Galleries. The dimensional disparity, the material of the walls and the lighting prominence are all key aspects in emphasising the importance of the Ionic Frieze as a symbolic metaphor of the Panathenaia in the new Gallery space. Even though these aspects are all silent, they altogether compose a space which could be regarded as a valid background for the Ionic Frieze to recreate its original cultural and spatial meanings in a cognitive and embodied way.

Therefore, the design of the architectural space is not arbitrary. Superficially, it breaks

³⁴² See 4.2.2 Space Layout, p. 135.

the original spatial sequence of the Ionic Frieze from a four-sided sequence into a reverse two-sided sequence. In fact, it innovatively offers the general public an appropriate space to view and empathise with these significant artefacts, particularly the Ionic Frieze. This new spatial interpretation of the Ionic Frieze initially seems to be illogical; however it is reasonable. Without replicating the original structure of the Ionic Frieze, the spatial interpretation unfolds a world displayed by the Ionic Frieze. The correlation of the marble material between the wall and the Ionic Frieze contributes to revealing architectural significance of the Ionic Frieze in relation to its original condition on the Parthenon Temple. Within such a context, the meanings contained by the Ionic Frieze are not limited to its original ritual depiction of the Panathenaia festival, but can also be seen in its architectural achievement, the Elgin issue and other aspects of cultural and historical significance. The recreation of the architectural space offers both the museum design group and the general public a common space to discuss and determine the contextual value of the Ionic Frieze, both individually and collectively.

Drawing an analogy to poetry, Classical architecture is composed of rhythmic columns. The elements constructing the colonnaded space which holds up the Ionic Frieze consist of various architectural elements - the wall, the Doric columns along the four sides of the Parthenon Temple and in front of the east and west sides of the Parthenon cella, the architrave, the roof, the entrance door of the Parthenon cella, the steps, and the media - lighting and material. Therefore, when all these elements appear in the Duveen Gallery, especially in the central Gallery where the Ionic Frieze is installed, the space could be regarded as an innovative interpretation which metaphorically reveals some aspects of the nature of the original space. Despite this, individual dimensions and locations of these architectural elements alter: for example, the entrance door of the Parthenon cella was originally installed in the east side of the Parthenon cella, but it is now installed in the long wall facing the Gallery main entrance, the roof above the Ionic Frieze extends much wider than the original roof; and the numbers of the Doric columns standing on each short side of the Parthenon

cella have been significantly reduced from six to two standing on the short sides of the central Gallery. Obviously, the Gallery space neither replaces the historical monument, nor is a reproduction of the Parthenon Temple. Although less rhythmic, the central Gallery space successfully alludes to some aspects of the nature of the original space in a reconstructed way.

Without colonnaded space along the four sides and with artefacts being displayed in reverse, the new space is much more introverted than the original space. However, in dominating the widest and brightest area in the Duveen Gallery, it opens itself up to communicate with the general public. The audio guide helps the artefacts to ‘speak’, and to tell their stories to the visitors. The central text board helps to explain their original sequence, and the vertical text board at the same time explains the Elgin issues. The temporal distances of the Ionic Frieze between its original condition on the Parthenon Temple and the removal by Lord Elgin, between removal, and its present condition in the Duveen Gallery, are all mediated within the Gallery space. Besides, clearly presented as questions on the vertical text board and with explanations contained in the leaflet, the vertical text board opens up the issues to be judged and answered by visitors themselves.

Contained within the British Museum, the identity of Elgin Marbles is slightly different from other colonial artefacts. Such sensitive identity is not only conveyed by previous conversations as in various media such as publications, the internet and audiovisual materials, but is also mediated by the Gallery space in which the Ionic Frieze of the Elgin Marbles has been displayed, prominently in a reconstructed space, as an part of the architectural space.

4.4.2 Ionic Frieze as a Two-sided Sequence and the Duveen Gallery

Instead of occupying four sides of the upper section of the exterior wall of the Parthenon cella, the new arrangements of the Ionic Frieze are displayed on the long

walls in the central Gallery of the Duveen Gallery (figure 4.59). This new arrangement could only offer visitors a perception of the original Ionic Frieze as a continuous ribbon. Even though fragments of the four sides are combined into a two-sided sequence, the original sequence representing the routes of the Panathenaia procession which starts from the southwest corner, divides into two routes and finally meets in the centre of the east Ionic Frieze, it could never be traced and imagined. In other words, the original structure of the Ionic Frieze could not be understood by the current representation. Hopefully the central text board can help visitors to understand the original sequence of the Ionic Frieze as a four-sided sequence rather than a two-sided sequence.

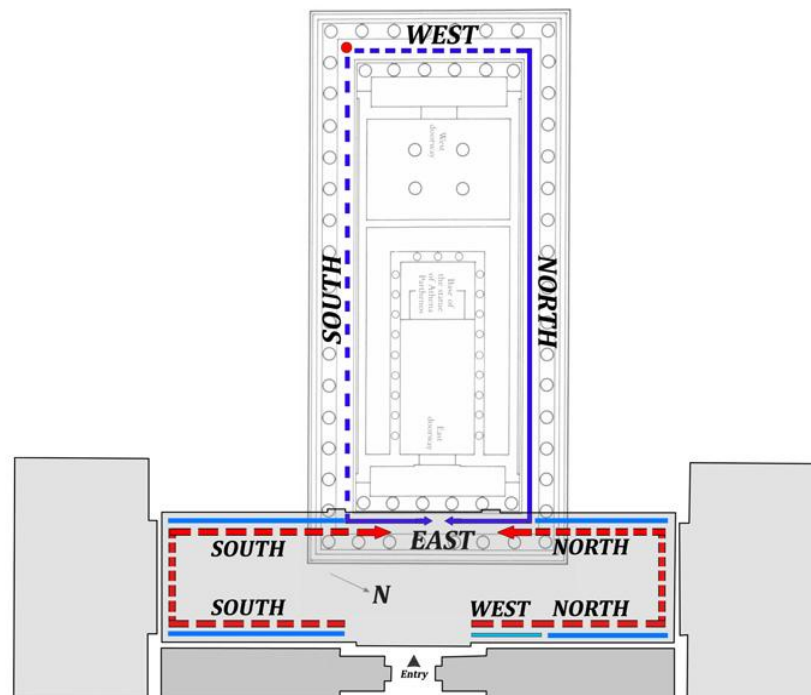


Figure 4.59 Diagram presents the routes of the Ionic Frieze - red: routes (Source: Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 16, edited by researcher)

Originally, each direction depicts different meanings of the Panathenaia festival; for instance, the west Ionic Frieze depicts the preparation of the procession, the north and the south depict the process of the procession, and the east Ionic Frieze depicts the climax of the procession - the dedication of the peplos to the Goddess. Even though the original four-sided sequence is rearranged into a two-sided sequence, the spatial

significance of the Ionic Frieze as a continuous ribbon is retained. Moreover, as discussed previously,³⁴³ this new interpretation of the spatial sequence does not disrupt the symbolic meanings contained by the east frieze as the most important part depicting the Panathenaia festival. The east Ionic Frieze is retained in the most important location facing the entrance of the Gallery space for the general public to view and engage with its content.

Entering into the Gallery, the west Ionic Frieze is displayed on the right hand side wall; then the north Ionic Frieze is displayed on the same wall, and continuous on the opposite wall, followed by the east Ionic Frieze. If the above depiction is one route of the procession, then another route starts at the left hand wall, where the south Ionic Frieze occupied the left hand wall of the central Gallery, continues to the opposite wall, and ends where it meets the east Ionic Frieze. The most important part - the east Ionic Frieze - is displayed in the central area of the wall facing the main entrance, with its significant representation of the dedication of the peplos.

Undoubtedly, the understanding of the original structural representation of the Ionic Frieze is highly affected by the new interpretation, however, some meanings have survived. Presented on the Duveen Gallery plan on the central text board in the Gallery space, the words 'south', 'north', 'east' and 'west' no longer refer to their original function, which depicts the direction of each face of the frieze; instead, each symbolically stands for the original sequence of the Ionic Frieze, and metaphorically helps this new spatial interpretation of the Ionic Frieze to reveal various meanings contained on each side of the original Ionic Frieze, and also of the Panathenaia festival as a whole.

4.4.3 Ionic Frieze as a Two-sided Sequence and Other Parthenon Sculptures

Known as the Parthenon sculptress, the pediments, the metopes and the Ionic Frieze

³⁴³ See 4.2.2 Space Layout, p. 139.

are actually the three most important parts over and above the sculptures as a whole. Besides these three groups of sculptures, as discussed in Chapter Three, there are other sculptures on the Parthenon Temple.³⁴⁴ There are displays on other fragmentary sculptures such as the akroterion in the south information Gallery. There is also a model of reconstruction of the north-west corner of the Parthenon Temple displayed in the north information Gallery. However, the text board next to the reconstructed model focuses on interpreting the Doric order on the Parthenon rather than the sculptures. Therefore, with only the pediments, the metopes and the Ionic Frieze contained in the Duveen Gallery, the original spatial relationship between all these sculptures on the Parthenon Temple could not be understood by either the spatial interpretation or the audiovisual texts.

4.4.4 Ionic Frieze as a Single-sided Sequence and the Central Wall of the Duveen Gallery

Entitled ‘west’, ‘north’, ‘south’ and ‘east’, the character of the Ionic Frieze in sequence is partially preserved. Composed as a new sequence which occupies the long walls of the central Duveen Gallery, they all become a part of the central wall. The space metaphorically inherits the nature of the Parthenon Temple, and the two-sided sequence remains the symbolic meanings of the Ionic Frieze. The Panathenaia festival therefore has been displayed in the Duveen Gallery from the moment the Duveen Gallery was constructed, to contemporary times, and will continue to be displayed into the unknown future.

Conclusion

To summarise, in this chapter, in addition to introducing the background information on the British Museum and the Duveen Gallery, the writing has analysed the significance of the media of architectural space and audiovisual texts which contribute to communicate the meanings of the Ionic Frieze of the Elgin Marbles. The next

³⁴⁴ See 3.2.1 The Parthenon Temple from a Historic View, p. 100.

chapter will introduce the background information on the New Acropolis Museum and the NAM Parthenon Gallery, and undertake an analysis of the significance of the media of architectural space and audiovisual texts which contribute to communicate meanings of the 'complete' Ionic Frieze.

Chapter Five The Parthenon Gallery in the New Acropolis Museum

Introduction

This chapter contains four sections. The first section introduces the background to the New Acropolis Museum and the NAM Parthenon Gallery, including the content of the ‘complete’ Ionic Frieze which is displayed in the Gallery. The second section is the analysis of the medium of the Gallery space, which helps to mediate the ‘complete’ Ionic Frieze. The third section is the analysis of the medium of audiovisual texts in the Gallery space which contribute to meanings delivery of the Ionic Frieze within the Gallery space. The fourth section is the summary of the medium that contributes to the communication of cultural meaning of the ‘complete’ Ionic Frieze in terms of different scales. The research methods applied in this chapter are observation and architectural analysis.

5.1 Background Introduction

5.1.1 The New Acropolis Museum

Designed by Greek architect Panages Kalkos, the foundations of the first Acropolis museum were laid in 1865. It is said that there was a debate about its location on the sacred Acropolis site where it had stood for about 30 years. After 1885, due to more discoveries on the Acropolis site, the decision to construct a second museum, the so-called small Acropolis Museum was taken. The small Acropolis Museum was completed in 1874; however, with much of its exhibition space underground, it is largely invisible from outside. Although housing invaluable relics from the temples of Acropolis and the surrounding excavated sites for such a long time, part of the building was eventually demolished after the Second World War. Afterwards, executed by renowned Greek modern architect Patrolos Karantinos, the museum was expanded into a modern building in 1965.

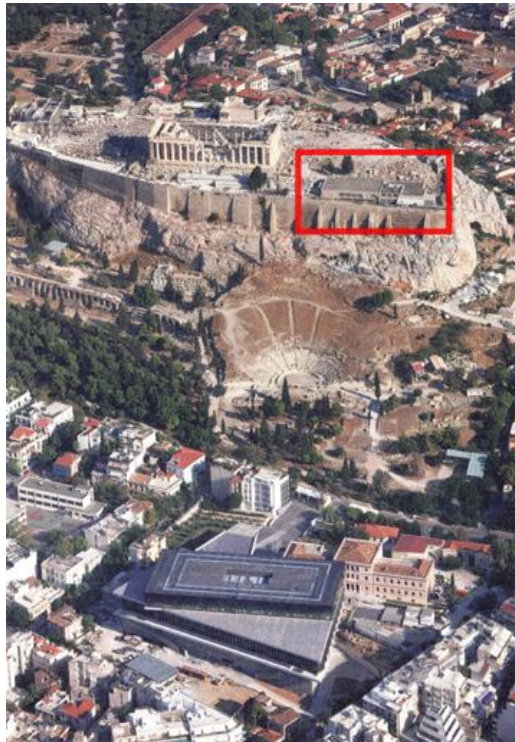


Figure 5.1 Aerial view of the Acropolis Museum and surrounding area - red: old-Acropolis Museum (Source: Poligrafa, E. *Bernard Tschumi: Acropolis Museum, Athens*, 2010, p. 7, edited by researcher.)



Figure 5.2 Aerial view of the location of the selected museum site - Makriyianni site for the third competition (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 12.)

Following successive excavations, more and more significant artefacts were found on the Acropolis site. These new discoveries had already exceeded the spatial tolerance within the Old Acropolis Museum, and modern pollution problems aggravated the damage already caused to the original environment of the sculptures. This resulted in the call for the removal of the sculptures of the Parthenon Temple to an alternative site, and the proposal for the building of a new museum, as a matter of urgency. In addition to these two reasons, last, but of equal important, the long-standing request from the Greek government for the return of the Elgin Marbles from the UK has been refused due to lack of a suitable place to display them. Therefore, creating a specific gallery for displaying the Elgin Marbles has become the key drive behind all recent proposals for the design of a new museum.

During the holding of four competitions, the route towards achieving the new Museum

was full of twists and turns. The first and the second competitions which were held in 1976 and 1979 both failed to produce any results for the reason that the selection of the land for proposed construction was completely unsuitable. What is more, both competitions were limited to participants from Greece. The third competition was announced internationally in 1989 which drew the submission of 438 architectural proposals. The Makriyianni site opposite the Theatre of Dionysos was selected for the location of the new museum (figure 5.2). The first prize was awarded to the Italian architect Manfredi Nicoletti and Lucio Passarelli.

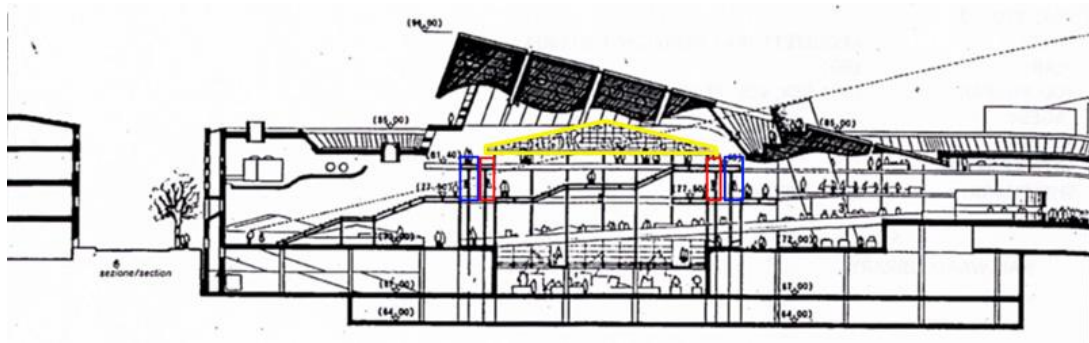


Figure 5.3 Museum Section presents the location of the Parthenon sculptures - yellow: pediment; red: Ionic Frieze; blue: metope. (Source: Nicoletti, M. Athens: The New Acropolis Museum. *Architettura Cronache e Storia*, 1991, p. 192, edited by researcher.)

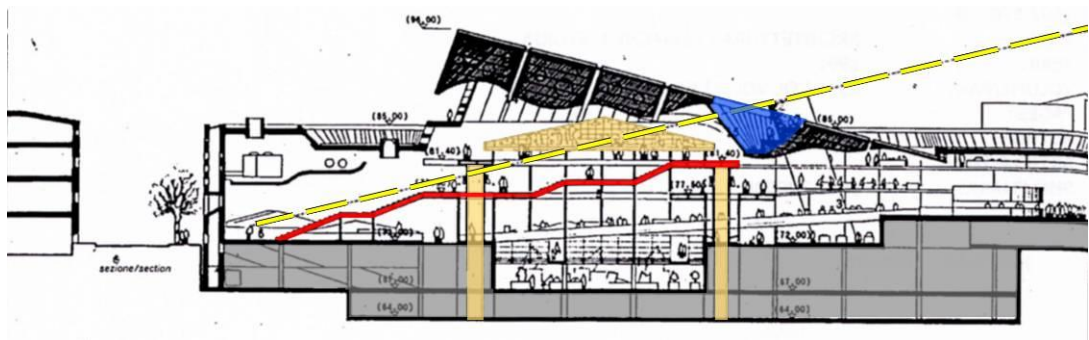


Figure 5.4 Museum section presents key architectural elements of the design - yellow: visual link with the Parthenon and the Acropolis; red: slope; light beige: replica of Parthenon Temple; blue: 'eye' piercing the roof. (Source: Nicoletti, M. Athens: The New Acropolis Museum, *Architettura Cronache e Storia*, 1991, p. 193, edited by researcher.)

The winning design was generated by three key ideas. Firstly, the museum abstractly

‘invites’ the significant Parthenon sculptures to be seen exactly in their original spatial and architectural positions on the Temple rather than from below - the ground level, the pediments and the Ionic Frieze are inverted to be viewed by visitors one level below the pediments; the metopes, however, remain in their original position, facing the exterior of the Parthenon Temple (figure 5.3). Secondly, with much of its exhibition space underground, a slope, the most important transportation element within the gallery space, successfully connects the space between the pediments displayed on the highest level, the metopes, and the Ionic Frieze displayed on the middle level, and other archaeological artefacts on the lower level (figure 5.4). Directed by the slope to the lower ground, an ‘eye’ piercing the great roof slab dramatically creates a visual link between these significant artefacts, especially between the Parthenon sculptures and their original context - the Acropolis and the Parthenon Temple. Thirdly, as an artificial ‘geological’ feature, the podium outside the museum building ‘gives continuity to the urban tissue and the ideal contour level of the Holy Rock’ (figure 5.5).³⁴⁵

The construction halted, however, due to the discovery of previously unknown remains of an ancient Athenian city on the site. Although over 43,000 square metres had already been dug, there was no way that the construction could continue, so the plan was cancelled in 1990. Subsequently, a new plan was proposed in order to integrate the archaeological remains of the site with the new museum. Based on the selection and discoveries of the Makriyianni site, the fourth competition, launched in 2000, was opened only to architectural practice by invitation for 12 entries. The competition was finally won by New-York-based architect Bernard Tschumi architects, in collaboration with Greek architect Michael Photiadis.

³⁴⁵ Nicoletti, Manfredi. The new Acropolis Museum in Athens, *Architecture méditerranéenne*, 1992, no. 39, p. 76.



Figure 5.5 Museum site plan - Red: Parthenon Temple; Blue: museum site; Green: podium outside the museum; Purple: The Weiler Building (Source: Nicoletti, M. Athens: The New Acropolis Museum. *Architettura Cronache e Storia*, 1991, p. 193, edited by researcher)

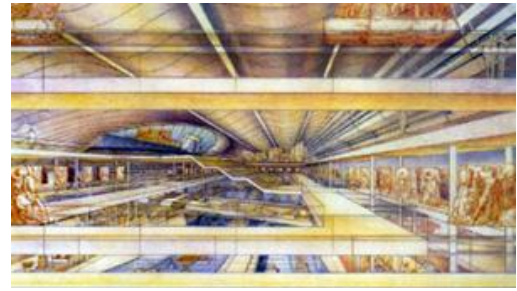


Figure 5.6 Interior perspective of Nicoletti's design (Source: <http://www.manfredinicoletti.com/>)



Figure 5.7 Physical model represents the museum site - Nicoletti's design (Source: <http://www.manfredinicoletti.com/>)

With three sides surrounded by a large residential area, the new museum site is an area containing many unused military barracks. Built in 1836 by the German engineer Wilhelm Weiler, the Weiler building was a Neo classical building located on the barracks, and was previously used as a military hospital (figure 5.8). The architectural style of this building is a central three-storey core flanked symmetrically by two-storey wings.³⁴⁶ The facade of the building was originally white cement. During the battle between left-wing forces and the city police, the external walls of the building suffered extensive damaged. Exposed with its internal structure made of stone blocks framed with bricks, when the Weiler building was renovated into the Museum of the Centre of Acropolis Studies from 1985 to 1987, the museum professionals decided to leave the

³⁴⁶ Pandermalis, Dimitrios. The Museum and Its Content, in: Tschumi, Bernard, *New Acropolis Museum*, New York: Rizzoli International Publications, 2009, p. 28.

building in its current status rather than having it repainted. The ownership of the Weiler building was transferred to the Greek Ministry of Culture in 1977, and the Centre for Acropolis Studies soon moved into the building, followed by the First Ephorate for Prehistoric and Classical Antiquities and the Organisation for the Construction of the New Acropolis Museum.³⁴⁷ During the design and construction of the new Museum, the ground floor of the Weiler building and the Museum was connected harmoniously by the surrounding landscape.



Figure 5.8 The Weiler building as seen from direction of the Acropolis direction - red: The Weiler Building
(Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 28, edited by researcher)

Born in January 1944 in Switzerland, Bernard Tschumi is known to the public as an architect, writer and educator. As the development of postmodern architecture began in the 1980s, Mark Wigley wrote in his catalogue to the 1988 show at the Museum of Modern Art, New York, entitled *Deconstructivist Architecture*,

The form is distorting itself. Yet this internal distortion does not destroy the form. In a strange way, the form remains intact. This is an architecture of disruption, dislocation, deflection, deviation and distortion, rather than one of demolition, dismantling, decay, decomposition and disintegration. It displaces structure instead

³⁴⁷ Ephorate was the leader of ancient Sparta and shared power with the Spartan kings. Sparta was a prominent city-state in ancient Greece, situated on the banks of the River Eurotas in Laconia, in south-eastern Peloponnese.

of destroying it.³⁴⁸

From Wigley's writing, the development of deconstructivist architecture can therefore be understood in an autonomous condition rather than a situated context. Associated with deconstructivism, how Bernard Tschumi would take on such a task in the face of so many constraints on the context of the development aroused great public interest? Would the architect choose to follow the context or to ignore it?

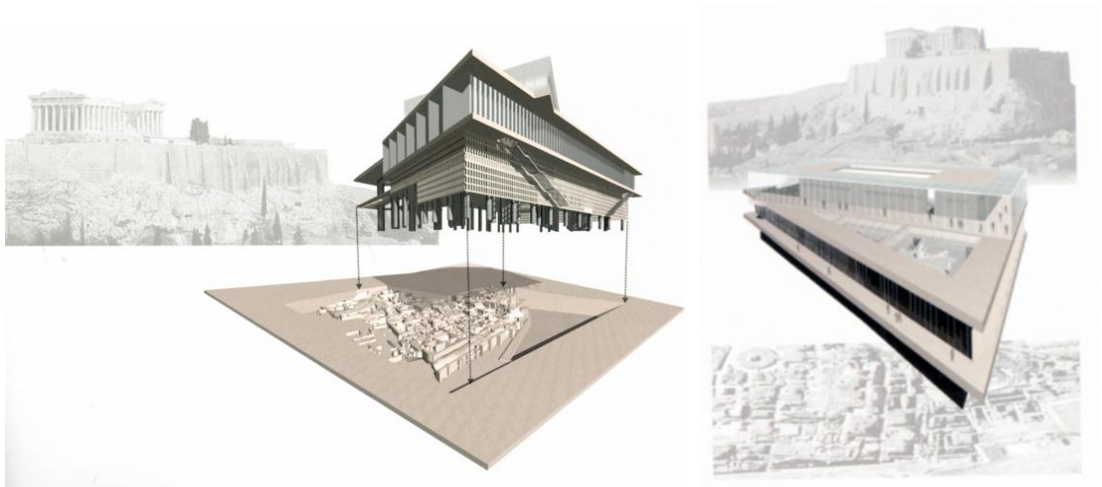


Figure 5.9 Computer model shows the relationship between the new museum and the archaeological excavation below, and the visual link between the new museum and the Parthenon Temple. (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 29, edited by researcher.)

According to the architect, the design for the New Acropolis Museum was motivated by a simple question consisting of three parts: 'How does one design a building located only 300 metres away from the most influential building in Western civilisation?; How does one design a building when its site is an extraordinary archaeological graveyard containing the remains of many centuries of civic life in Athens?; How to design a structure whose unstated mandate is to facilitate the reunification of the Parthenon Frieze, when half of it is still on display at the British Museum in London?'³⁴⁹ The answers to these questions were contained within the

³⁴⁸ Frampton, Kenneth. *Modern Architecture: A Critical History*, 3rd ed. Thames and Hudson Ltd, London, 1992, p. 313.

³⁴⁹ Tschumi. *The New Acropolis Museum*, p. 82.

irreducible context of the new museum. Determined by the prominent archaeological site and the Acropolis site, the museum concept ‘consists of three superimposed and autonomous parts: a base, a middle, and a top made out of three main materials, marble, concrete and glass’.³⁵⁰

Founded in 2003 and located in the historical Makryianni district, situated 300 metres south of the Acropolis, the New Acropolis Museum opened its doors to the general public in the summer of 2009. Supported by more than 100 concrete pillars, the new Museum is like a ‘time machine’ anchored on the site of archaeological excavation.³⁵¹ Covering a total area of 25,000 square metres, the New Acropolis Museum has more than 14,000 square metres of exhibition space. As an archaeological museum exhibiting more than 4,000 artefacts, the Museum adopts quadrilateral form as its main exhibition area with the exception of the rectangular space of the Parthenon Gallery on the top.

There are three requirements in dictating the architectural form of the Museum: to establish a visual link between the Museum artefacts and the monuments of the Acropolis; to exhibit the Parthenon sculptures in their entirety; and to adapt a new building to the archaeological site that extends above its foundation.³⁵² The new Museum consists of five floors:

- The basement floor contains the on-going archaeological excavation, offices and Museum storerooms (figure 5.10);
- The ground floor is the main entrance, the ticket and information area, the Museum shop, the cloakrooms, and the gallery named ‘the slopes of the Acropolis’, where visitors can look down through many areas of the ground floor while archaeologists are working on the excavation site below (figure 5.11);
- The first floor is a columned exhibition space which consists of two contractive areas: the Archaic Gallery which is two stories high; the post-Parthenon Gallery

³⁵⁰ *ibid.*, p. 84.

³⁵¹ Lumly.

³⁵² Anon. *New Acropolis Museum Map*, Athens: The New Acropolis Museum, 2011.

and the Roman Gallery which are each one storey in height (figure 5.12);

- The mezzanine floor consists of the Museum restaurant and shop, and the exterior terrace and the balcony are just above the Archaic Gallery (figure 5.13);
- The third floor is the NAM Parthenon Gallery housing the information centre and the main Gallery space (figure 5.14).



Figure 5.10 Basement floor plan - red: archaeological excavation; black: offices and storerooms (Source: Polígrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 22 edited by researcher)

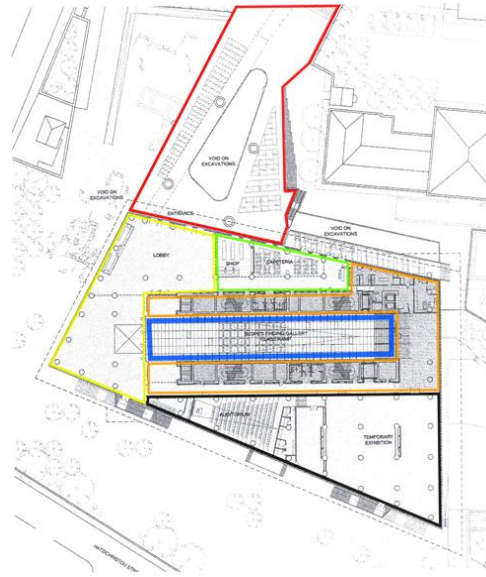


Figure 5.11 Ground floor plan - red: museum entrance; yellow: ticket office and information centre; green: museum shop; orange: supplementary rooms; blue: gallery of slopes (Source: Polígrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 23, edited by researcher)



Figure 5.12 First floor plan - blue: Archaic gallery (two-storey high); yellow: post-Parthenon gallery (one-storey-high); green: Roman gallery (one storey-high); orange: supplementary rooms (Source: Poligrafa, E. *Bernard Tschumi: Acropolis Museum, Athens*, 2010, p. 24, edited by researcher)

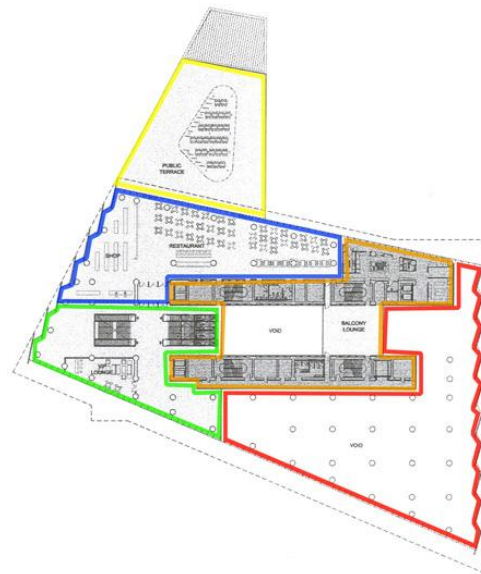


Figure 5.13 Mezzanine floor plan - yellow: public terrace; blue: restaurant and shop; green: public area; red: void above Archaic gallery; orange: supplementary rooms (Source: Poligrafa, E. *Bernard Tschumi: Acropolis Museum, Athens*, 2010, p. 25, edited by researcher)

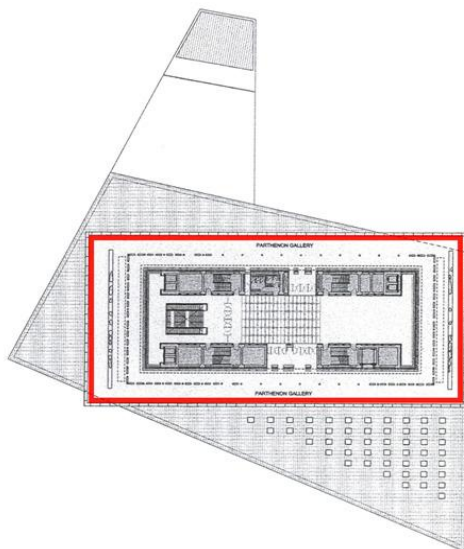


Figure 5.14 Third floor plan - red: Parthenon gallery (Source: Poligrafa, E. *Bernard Tschumi: Acropolis Museum, Athens*, 2010, p. 26, edited by researcher.)

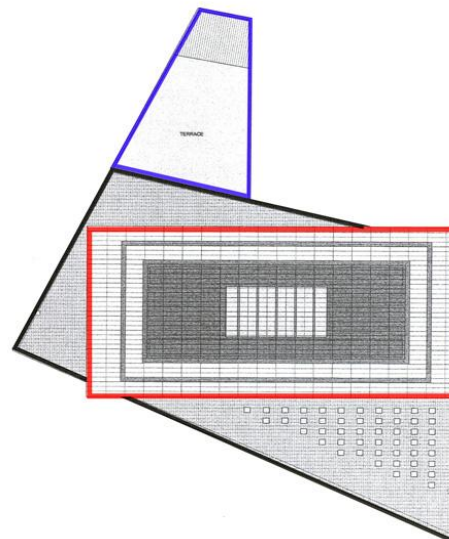


Figure 5.15 Roof plan - red: Roof of Parthenon gallery; black: other galleries; blue: roof of terrace (Source: Polí grafa, E. *Bernard Tschumi: Acropolis Museum, Athens*, 2010, p. 27, edited by researcher.)



Figure 5.16 The Gallery of Slopes - Slope area have glass openings could see the excavations below, and the big steps leading to the first floor galleries. (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 110.)



Figure 5.17 The Archaic Gallery seen from the mezzanine balcony. (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 59.)

The new Museum is home to both permanent and temporary collections. Based on the content of different artefacts, the permanent collection is grouped into five sections:

- The Gallery of the Slopes of the Acropolis, located on the ground floor, mainly houses archaeological findings varying from the sanctuaries that were once established along the slopes of the Acropolis, to the objects used by Athenians in everyday life from all historic periods (figure 5.16);
- The Archaic Gallery, occupying the east and south sections of the first floor, hosts the magnificent sculptures which once graced the first temples on the Acropolis. It also displays votive offerings dedicated by worshippers (figure 5.17);
- The NAM Parthenon Gallery, the culmination of the Museum's whole exhibition situated on the third floor, contains the low relief sculptures of the Parthenon Frieze depicting the Panathenaia festival, the high relief of metopes with

representations of Greek Mythology, and the carved-in-round sculptures of pediments depicting stories of the Goddess Athena;

- The last galleries located on the north wing of the first floor are post-Parthenon Gallery and the Roman Gallery. Its displays ranges from classical sculptures and their Roman copies, votive and decree reliefs dating to the fifth and the fourth century BC, relief bases of sculptures and portraits, and selected works dating from the end of antiquity and the early Byzantine period.

5.1.2 The NAM Parthenon Gallery

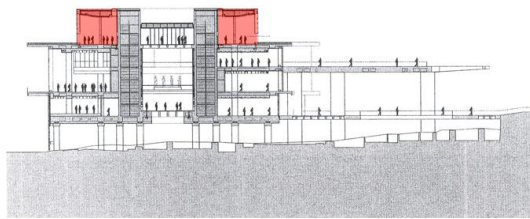


Figure 5.18 Transversal section

- red: Parthenon gallery. (Source: Poligrafa, E.

Bernard Tschumi: Acropolis Museum, Athens, 2010, p. 28, edited by researcher)

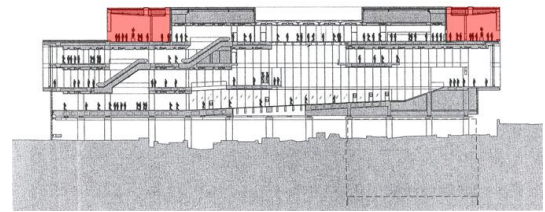


Figure 5.19 Longitudinal section

- red: Parthenon gallery. (Source: Poligrafa, E.

Bernard Tschumi: Acropolis Museum, Athens, 2010, p. 29, edited by researcher)

Located on the top floor of the new Museum, the NAM Parthenon Gallery is a rectangular glass-encased space. The Gallery is divided into two main parts: the space *within* the central concrete core and the space *embracing* the central concrete core. The space within the core consists of the transportation area, the atrium and the information centre (figure 5.20). The space embracing the core is the main Gallery space where the Parthenon sculptures are displayed. Hosting the originals and replicas together, the artefacts of the NAM Parthenon Gallery are mainly sculptures of the Parthenon Temple which are generally known as the Ionic Frieze, the metopes and the pediments. In the main Gallery space, the Ionic Frieze is displayed 1,500 millimetres above the Gallery floor along the central concrete core, the metopes are displayed in the niches 2,500 millimetres high, and the pediments are displayed on the marble pedestals 800 millimetres high. Besides these three main groups of sculptures of the

Parthenon Temple, there are a few fragments of other sculptural decorations of the Parthenon Temple displayed in the Gallery, such as the Akroterion as flora, the cornice as a lion's head, etc.

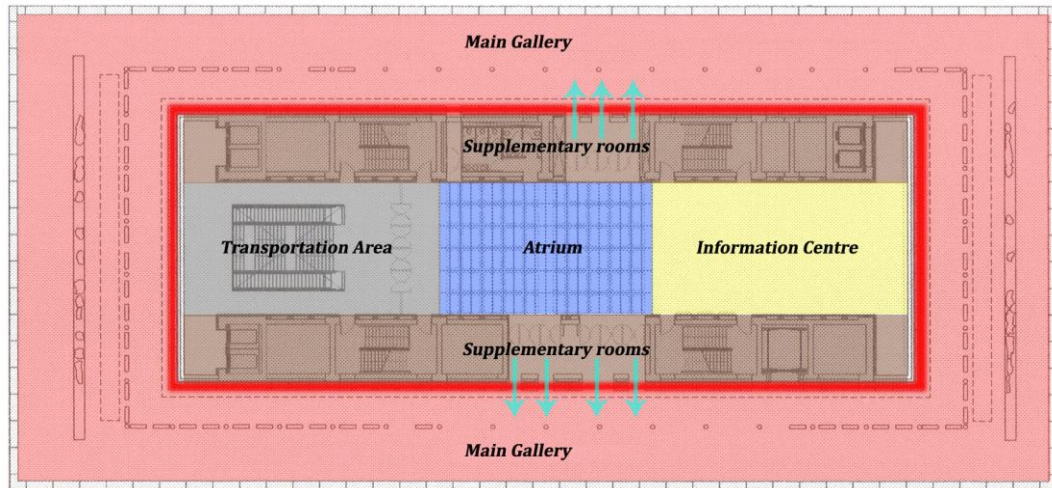


Figure 5.20 Floor plan of NAM Parthenon Gallery with functions - red: central concrete core; yellow: information centre; blue: Atrium; grey: transportation area; brown: supplementary rooms; pink: Parthenon gallery; cyan: entrance (Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

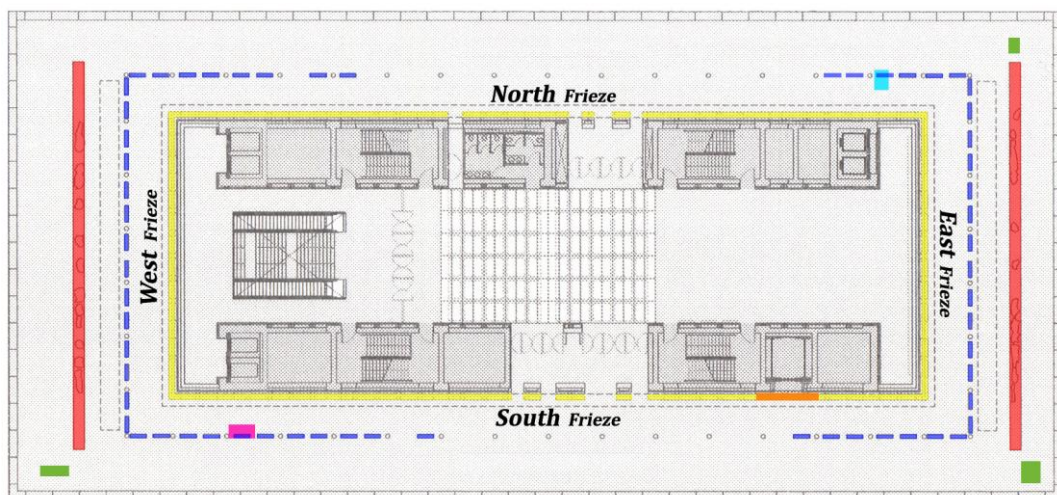


Figure 5.21 Floor plan of the NAM Parthenon Gallery with displayed artefacts - red: Pediments; blue: Metopes; yellow: mixture of original Ionic Frieze and replicas; orange: missing Ionic Frieze; cyan: fragment of Ionic Frieze on loan from the Vatican Museum; purple: original back of Ionic Frieze from which the surface was removed by Elgin; green: other fragments of the Parthenon sculptures, e.g. lion head and Akroterion. (Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

5.1.3 The Content of the Ionic Frieze in the NAM Parthenon Gallery

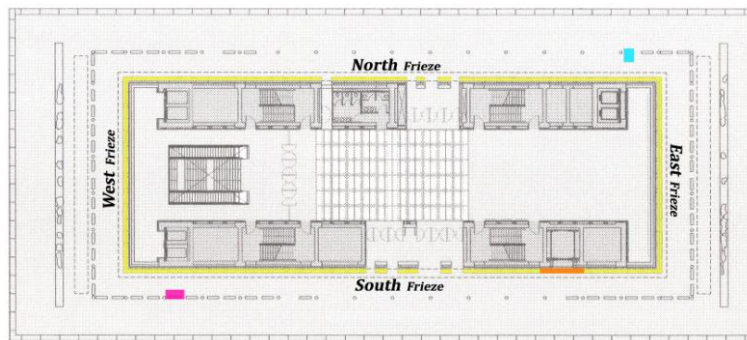


Figure 5.22 Floor plan of the NAM Parthenon Gallery with Ionic Frieze - yellow: mixture of original Ionic Frieze (both yellowish and white) and replicas; orange: missing Ionic Frieze; cyan: fragment of Ionic Frieze on loan from the Vatican Museum; purple: original back of Ionic Frieze from which the surface was removed by Elgin. (Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

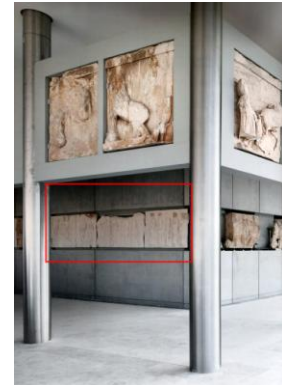


Figure 5.23 The white replicas of the east Ionic Frieze - red. (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 46.)

During the historic transformations of the Parthenon Temple in the last 250 years, the Ionic Frieze underwent several transformations; from its original entirety into archaeological fragments, and from fragments back into ‘complete’ artefacts again in terms of six different types in the NAM Parthenon Gallery.

These six different types are (figure 5.21): (1) original fragments in yellowish colour; (2) original fragment in white colour (figure 5.24); (3) original fragment on loan from the Vatican Museum; (4) original remains of the back of the replica; (5) white replicas made of plaster given by the British Museum with stamps (figure 5.23) and given by the Louvre Museum of Paris, the Vatican Museums of Rome, the Kunsthistorisches Museum of Vienna, the Glyptothek of Munich, the Heidelberg University’s Museum, and the Palermo Museum in Italy; and (6) the ones that went missing during the transformations of the Parthenon Temple. Because there are missing sections, the Ionic Frieze of the Parthenon Temple could never be completed again in the real sense. Therefore, in the following text, the ‘complete’ Ionic Frieze stands for the fragmentary

Ionic Frieze whose parts exists together in the NAM Parthenon Gallery as tangible materials of either original marble material or plaster replicas.



Figure 5.24 The original ninth block of the west Ionic Frieze in both yellowish colour and white colour (see right corner below) (Source: postcard New Acropolis Museum 2010)

5.2 Building and Content: The NAM Parthenon Gallery and the ‘Complete’ Ionic Frieze

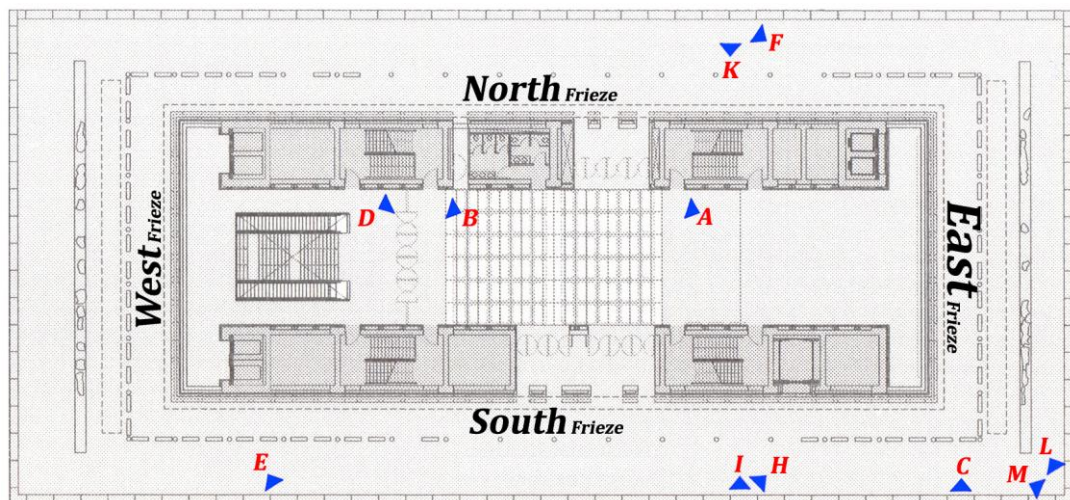


Figure 5.25 Sketches of perspectives in the NAM Parthenon Gallery in the museum (these sketches will all be mentioned in the following text, therefore, the image is retained for reference) - red: view points (Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

5.2.1 Circulation

Compared with the Museum plan used at the very beginning of construction, the latest Museum map not only shows the plan of each floor with Gallery spaces, but also presents a coloured exhibition route with arrows clearly directing visitors. Picking up a Museum map leaflet at the information desk next to the main entrance, visitors can easily follow the route to visit the Museum.

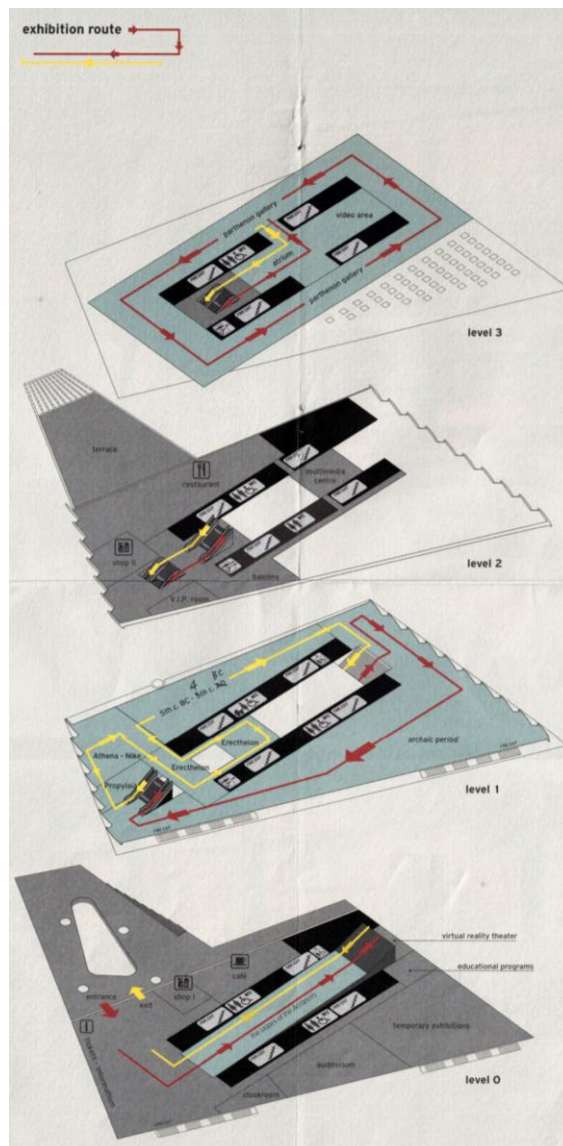


Figure 5.26 Museum map: bottom-top: level 0 - level 3 (Source: New Acropolis Museum 2011)

Seen from the image of the Museum map (figure 5.26), the red route starts from the

entrance, connecting the Gallery of the Slopes of the Acropolis on the ground floor, the Archaic Gallery on the first floor, and the NAM Parthenon Gallery on the third floor; the yellow route starts from the NAM Parthenon Gallery, connecting displays of surrounding temples of the Parthenon and collections of the fourth and fifth centuries BC on the first floor. Culminating at the top floor of the NAM Parthenon Gallery, the circulation metaphorically indicates the original experience of visiting the Parthenon Temple which was situated on the top of the Acropolis. In ancient times, people needed to climb up the slopes of the Acropolis and finally arrived at the sacred site of the Parthenon Temple. The sketch drawn by the architect strongly indicates that the intention of organising the gallery spaces is actually to replicate the original experience of going to the Parthenon Temple (figure 5.27). The Gallery of Slopes on the ground floor and the galleries on the first floor are connected by several big steps. However, the galleries on the first floor, the mezzanine floor, and the NAM Parthenon Gallery on the third floor are connected by two groups of escalators. Thus, the experience of climbing the sacred Acropolis on foot cannot be replaced by this easy and relaxed method of taking the escalator. Equally, the experience of going up to the Parthenon Temple on foot is absolutely different from going up by escalator.

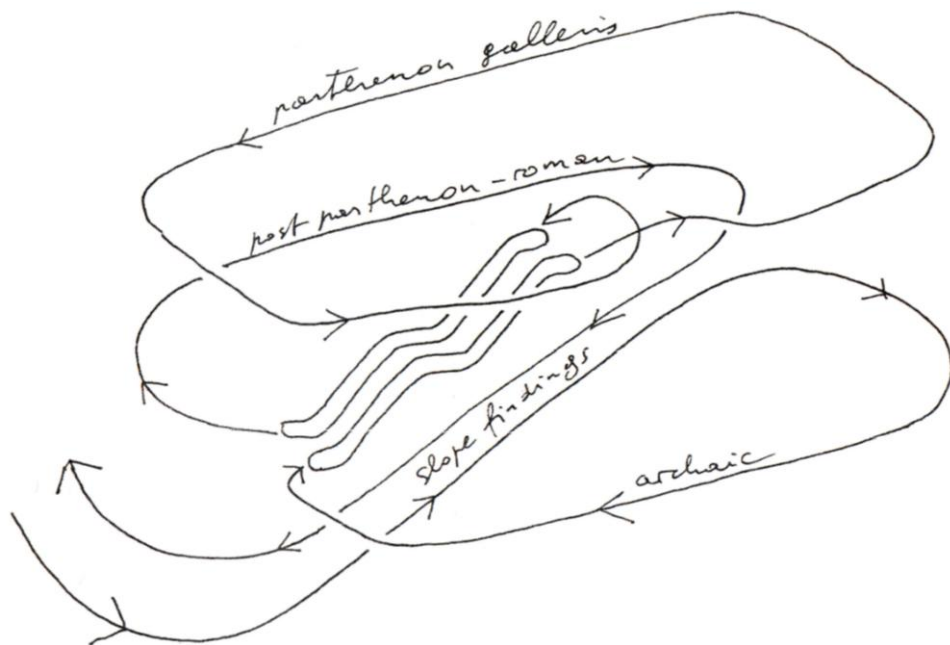


Figure 5.27 Circulation diagram by Bernard Tschumi (Source: Poligrafia, E. *Bernard Tschumi: Acropolis Museum*, Athens, 2010, p. 17.)



Figure 5.28 Entering into the NAM Parthenon Gallery and seeing the Parthenon Temple and the Acropolis (Source: Tschumi, B. *New Acropolis Museum*, 2009, pp. 22-23.)

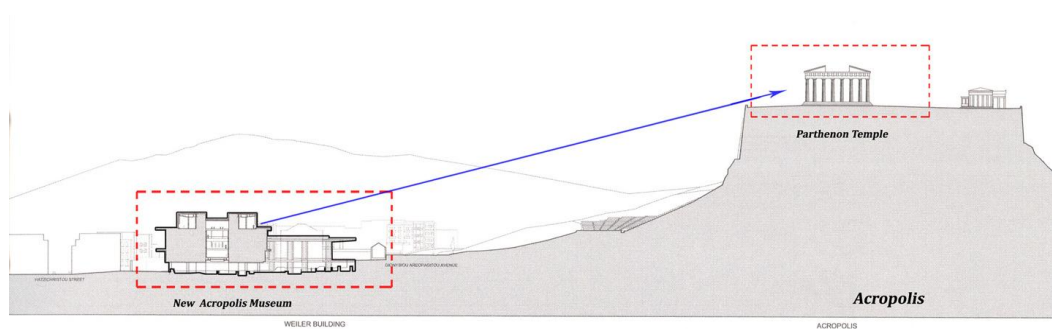


Figure 5.29 Visual link between the NAM Parthenon Gallery and the Parthenon Temple (Source: Poligrafa, E. *Bernard Tschumi: Acropolis Museum, Athens*, 2010, p. 21, edited by researcher)

In order to establish the relationship between the Parthenon Temple on the Acropolis and the NAM Parthenon Gallery of the new Museum, the Gallery is designed as a rectangular glass-encased space welcoming multi-perspectives from the Acropolis site, the surrounding historic hills and the modern city of Athens. For the purpose of emphasising the strong visual link between the Parthenon Temple and the NAM Parthenon Gallery, the red route indicates entering into the Gallery from the north side of the inner core. Stepping into the Gallery from the north sides of the Gallery, along with the breathtaking view of the Parthenon Temple and the Acropolis (figure 5.28), there is an obvious lack of sculptures with empty spaces both along the north wall of

the central concrete core and between the steel columns (figure 5.30). According to Ms. Evelyn Vouza, the archaeologist of the NAM Parthenon Gallery, many of the visitors are very frustrated while they see so many empty spaces which should be filled with significant sculptures. Following the route, towards the west side of the Gallery, visitors can see the largest ‘complete’ part of the original Ionic Frieze - the west Ionic Frieze (figure 5.31), the west metopes and the west pediments. The route then leads visitors to the south and the east sides of the Gallery space. After seeing the other part of the north side of the Gallery, visitors can finally leave the Gallery from the north side where they first entered.

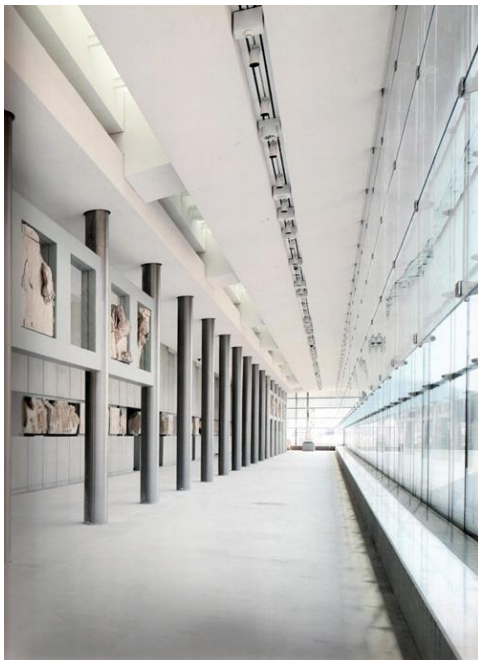


Figure 5.30 Loss of the space between the columns (Source: Tschumi, B. *New Acropolis Museum*, 2009, pp. 47.)

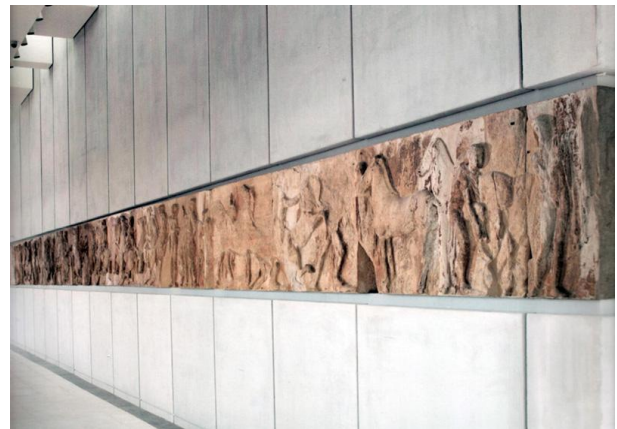


Figure 5.31 West Ionic Frieze - most complete original part of Ionic Frieze. (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 59.)

Besides creating sufficient visual links with the Parthenon Temple and the Acropolis site, the central concrete core of the NAM Parthenon Gallery is precisely the same dimensions and orientation as the Parthenon cella, and the 46 steel columns are exactly the same number as the original Doric columns along the four sides of the Parthenon Temple. The Gallery space is approximately six metres high. The architect did not

want to imitate the architecture of the ancient monuments but to make silent reference to them.³⁵³ Therefore, the materials of the central core and the columns, the dimension of the columns, and the height of each group of Parthenon sculptures and some other aspects are all distinguished from their original conditions. As long as visitors leave the Gallery, the yellow circulation route of the Museum map directs them to take the escalators downstairs. After visiting the post-Parthenon Gallery and the Roman Gallery on the west and north side of the first floor, visitors can then take the big steps to return to the slopes of the galleries on the ground floor and finish their visit.

5.2.2 Space Layout

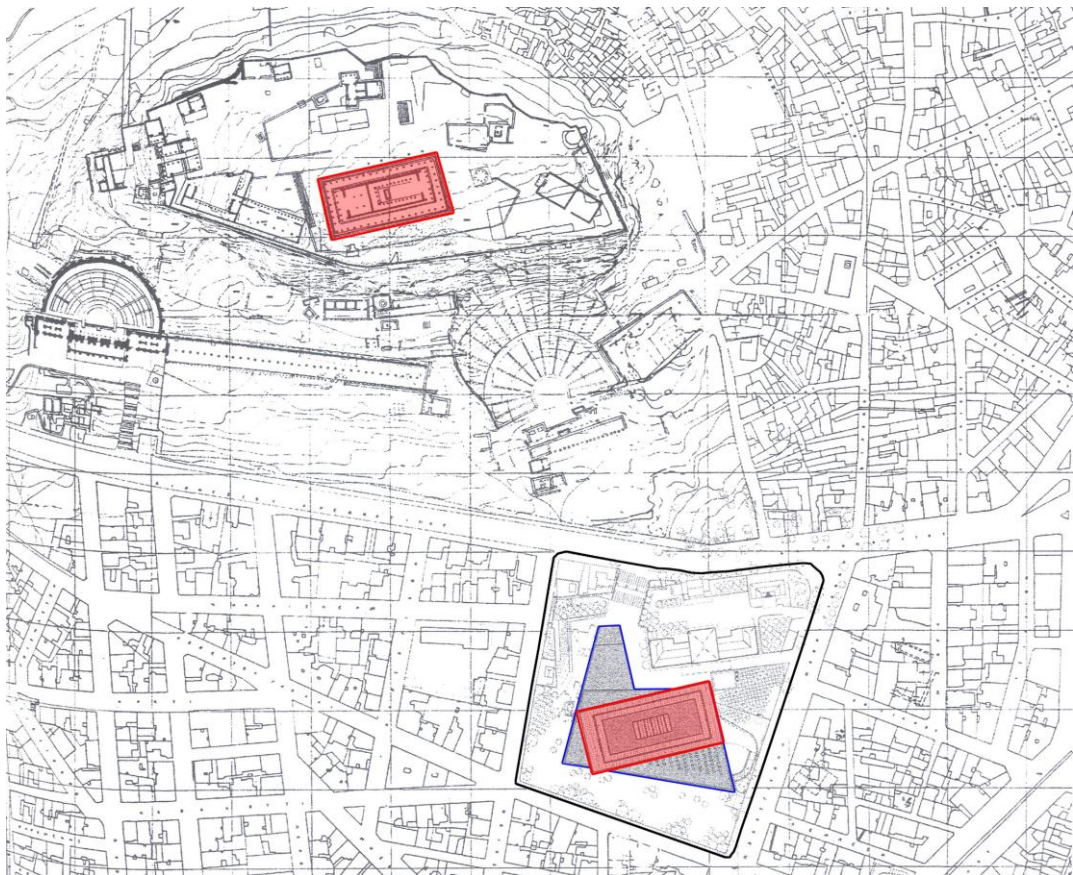


Figure 5.32 Site plan of the New Acropolis Museum and the Acropolis - red area above - Parthenon Temple; red area below - the NAM Parthenon Gallery; blue area - outline of the New Acropolis Museum; black: outline of the new museum site. (Source: Poligrafa, E. *Bernard Tschumi: Acropolis Museum, Athens*, 2010, p. 21, edited by researcher)

³⁵³ Poligrafa, Ediciones. *Bernard Tschumi: Acropolis Museum, Athens*, Barcelona: Novoprint, 2010, p. 8.

Through the site plan of the new Acropolis Museum, it would not be difficult to find that the inner core of the rectangular NAM Parthenon Gallery space is actually in parallel with the cella of the Parthenon Temple (figure 5.32). In order to bridge the distance between the original Temple and the new Gallery space, dimensions and directions of the original cella were both adopted in the central core of the Gallery design. Rotating 23 degrees in relation to the rest of the building, the NAM Parthenon Gallery is positioned on top of the new Museum. This is the reason why, viewed from the outside, the Gallery does not follow the same quadrilateral form of the main Museum space but rather is distinguished as a rectangular space. However, there is no such plan displayed within the Gallery to interpret this significance. Therefore, visitors are unable to clearly understand that the reason why the architectural form of the Gallery is different from other parts of the Museum is because of this strong indication of the original form of the Parthenon Temple and the establishment of the effective visual link between the NAM Parthenon Gallery and the Parthenon Temple.

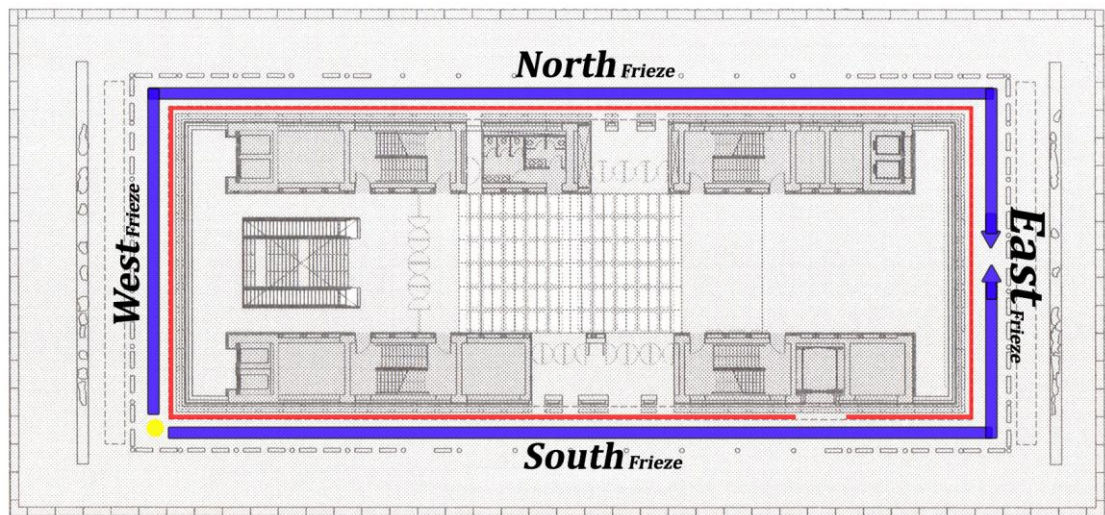


Figure 5.33 Routes of the 'complete' Ionic Frieze - yellow: start point; red: 'complete' Ionic Frieze; blue: routes.
(Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

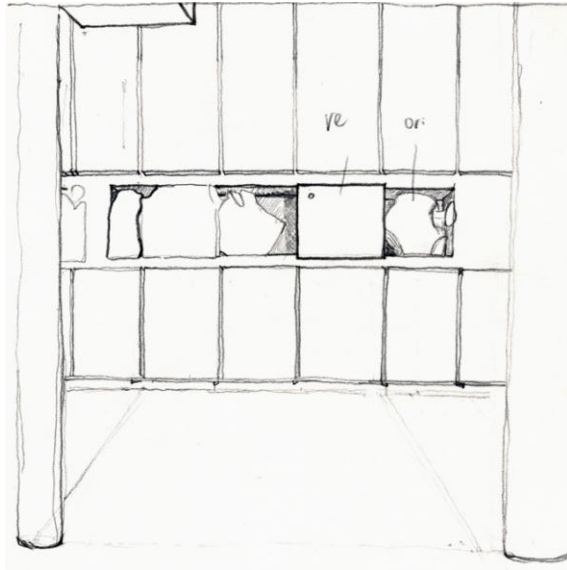


Figure 5.34 Sketch presents the difference between the original Ionic Frieze and the replica, the shades distinguished the difference - perspective K. (Sketched by researcher)



Figure 5.35 Photo presents the difference between the original Ionic Frieze and the replica - red: replicas; blue: originals (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 46, edited by researcher)

Known as the most significant part of the Parthenon sculptures, the Ionic Frieze is exhibited continuously in its original order and sequence along the perimeter of the surface of the central core. With reference to the depiction of the Panathenaia procession on the Ionic Frieze, the sequence of the procession starts at the southwest corner of the core. Divided into two routes, one route of the sequence progresses along the west and the north side of the core and the other route progresses along the south side of the core. These two routes meet at the centre of the east side of the core. The height of the Ionic Frieze is reduced from its original 12,000 millimetres high to 1,500 millimetres. The east and west sides of the central concrete core do not replicate the original condition of the Parthenon cella - to have six columns standing on east and west sides of the cella respectively. Therefore, the central concrete core is composed of solid walls on four sides. Visitors can view the Ionic Frieze at normal eye level.



Figure 5.36 Sitting on the east platform, looking northwest, the Photo presents from the furthest to the nearest: Ionic Frieze, metopes, pediments, and some fragments (Source: postcard New Acropolis Museum 2010)

Displayed 1,500 millimetres above the NAM Parthenon Gallery floor, the installations of the Ionic Frieze are different. About 60 millimetres thick, replicas donated by different museums from other places of the world hang on the surface of the core. The original Ionic Frieze carved on the wall of the cella measured 600 millimetres thick together with the wall of the Parthenon cella, and is inserted into the concrete core. Like its original condition on the Parthenon Temple, the Ionic Frieze is enclosed by a semi-opened colonnaded space consisting of 46 steel columns. Each with a diameter of 400 millimetres, the steel columns are much thinner than the original Doric columns of which the diameters were in 1,900 millimetres. About 2,500 millimetres above the Gallery floor, the metopes are displayed in the niches between every two columns. The pediments are displayed on marble pedestals about 850 millimetres high. A few fragments are also displayed on marble pedestals almost the same height as the pediments.

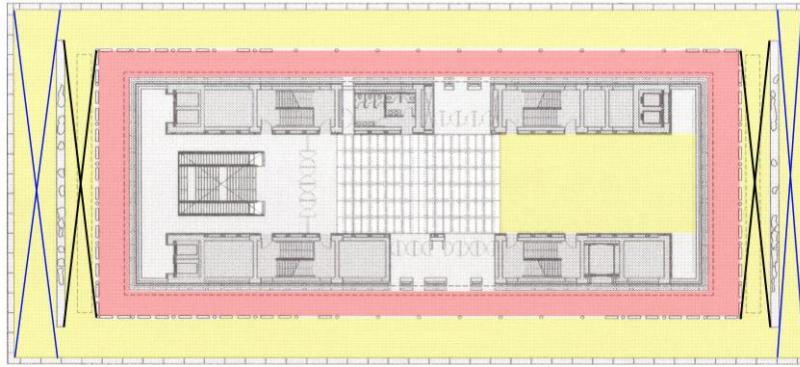


Figure 5.37 Floor plan of the NAM Parthenon Gallery is divided into several tunnel-like spaces - red: tunnel area embracing the Ionic Frieze; yellow: tunnel area of other sculptures; Black Cross: tunnel space in front of metopes; blue cross: tunnel space in front of pediments (Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

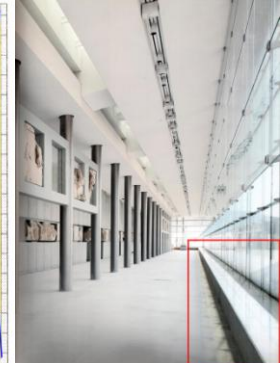


Figure 5.38 Photo presents the north platform - red: platform (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 47.)

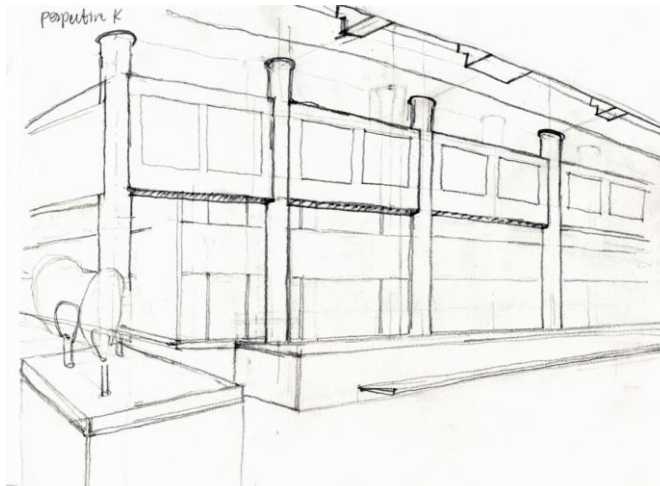


Figure 5.39 Sitting on the east side platform, the Sketch presents three levels of locations of sculptures: metopes on the highest level, pediments on the lowest level, and Ionic Frieze in the middle level - Perspective L. (Sketched by researcher)

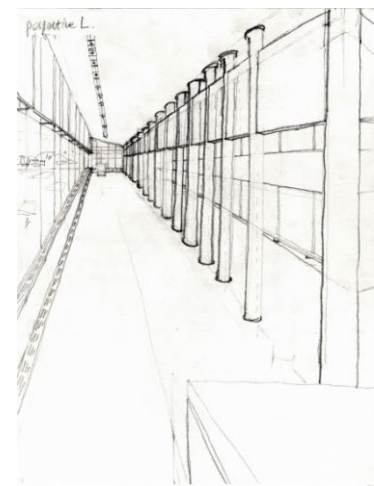


Figure 5.40 Sketch presents the tunnel-like space between the long side platform and metopes - Perspective M. (Sketched by researcher)

The main NAM Parthenon Gallery space is divided into several layers. These layers are all tunnel-like spaces for passing through, rather than enclosed areas for gathering (figure 5.37). Along the four sides of the window facade within the Gallery space, there is a continuous marble platform, 500 millimetres high and 540 millimetres wide (figure 5.38). It is convenient for visitors to sit on and to look at the Parthenon sculptures. Positioned on the north and the south sides of the platforms, metopes, displayed between the steel columns, could be viewed as the first layer of the space.

Therefore, the Ionic Frieze could be viewed in almost its original condition, through the screens formed by the columns.

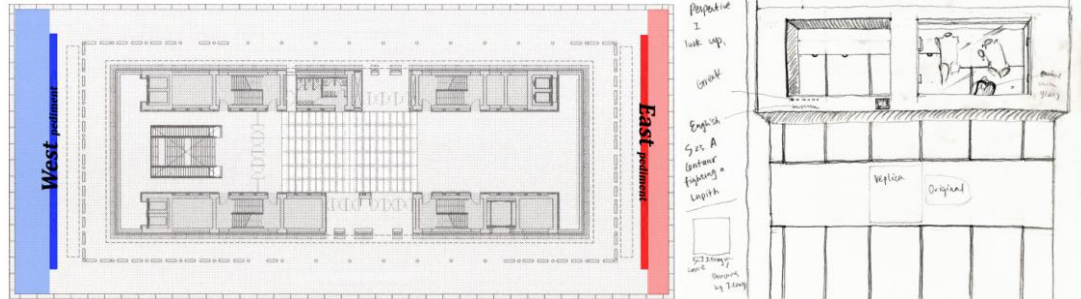


Figure 5.41 Floor plan of the NAM Parthenon Gallery presents the difference between the area in front of the west pediments is wider than the area in front of the east pediments - blue: area between west pediments and platform; red: area between east pediments and platform. (Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

Figure 5.42 Sketch presents the Ionic Frieze be seen through the formed by the steel columns - Perspective I. (Sketched by researcher)

Compared with the north and the south sides of the platform, visitors are apparently willing to stay longer on the east and the west sides of the platform (figure 5.41). Probably they find these two areas are the best place to see an interesting interpretation of spatial relationship between the main Parthenon sculptures: the first layer of pediments on the lowest level, the second layer of metopes on the highest level, and the third layer of Ionic Frieze seen through the screen on the middle level. What is more, the area between the west platform and the west pediments is slightly wider than the area between the east platform and the east pediments. However, such a small dimensional difference is enough to prove that the spatial arrangement of the Parthenon sculptures displayed on the east side of the Gallery space is more coherent and focused. On the contrary, the area between the long-side platforms and the long-side metopes are less-focused. Many times even though visitors choose to sit on the platforms along one of the long sides of the Gallery, their attentions are distant rather than focused. On one hand, the design of the platform helps visitors to view the Parthenon sculptures in an ordered way. On the other hand, the space embracing the significant Ionic Frieze is however left behind by most visitors.

It seems that the Ionic Frieze is displayed as the background of other sculptures rather than as the most important part. Those memorable underlying stories depicted on the Ionic Frieze are a long way from challenging the fascinating scenes which can be seen through the window façade of the Gallery.

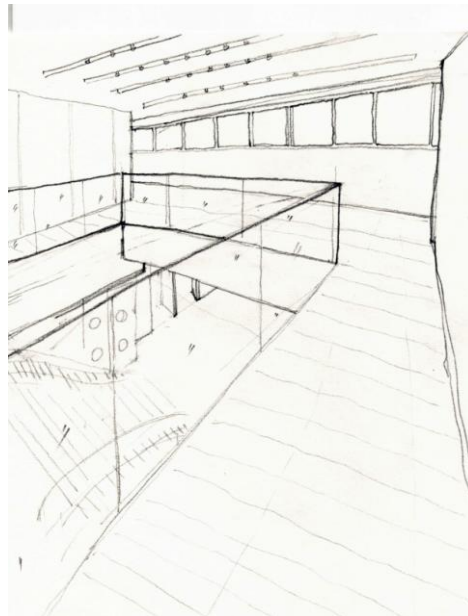


Figure 5.43 Sketch presents the back of the west Ionic Frieze - Perspective D (Sketched by researcher)

Following observations of visitors' movements, the area in front of the east Ionic Frieze is visited far less often. According to the archaeologist Ms. Vouza, even though the west Ionic Frieze is presented as the most 'complete' part of the original Ionic Frieze, it has the same problem, attracting only a few visitors who would prefer to see it standing in the space behind the metopes. Moreover, the text board below the Ionic Frieze is presented in a tedious way. How could spatial design and text board both attract visitors' attentions in order to translate significant meanings of the Ionic Frieze from a general level to a more detailed level? Except for the pediments which are displayed in the east and west sides of the Gallery, the four sides of the spatial structure of the Ionic Frieze and the metopes are almost the same, which means that without knowing the content of the Ionic Frieze or the metopes, every slab of the 'complete' Ionic Frieze or metopes is located in the same location and same situation

as the other slabs. Even though this is the depiction of their original condition on the Parthenon Temple as individual sculptures within the whole, there still could be some new opportunities to see their uniqueness either on the grounds of their original significant presentation or their transformation in the Parthenon Temple in different times.

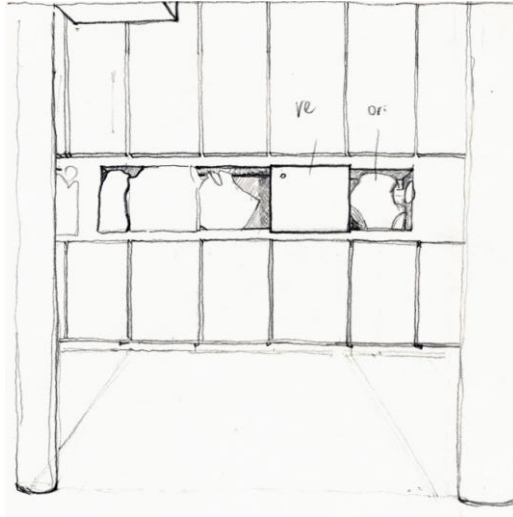


Figure 5.44 Sketch presents the difference between the original Ionic Frieze (with shades) and the replica - Perspective K. (Sketched by researcher)

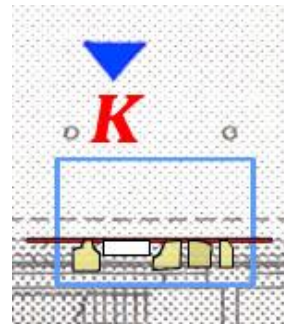


Figure 5.45 Present interpretation - red line: current surface of Ionic Frieze; beige: original marble; white: replica; blue: sketched area. (Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

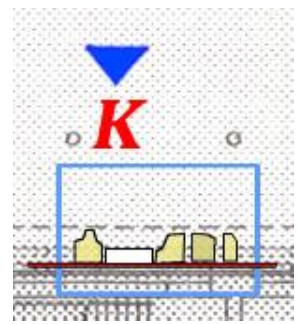


Figure 5.46 Suggested interpretation - red line: surface of Ionic Frieze; beige: original marble; white: replica; blue: sketched area. (Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

For example, the original Ionic Frieze is much thicker in depth than the replicas donated by different museums. Therefore, based on the original situation, these two artefacts should be displayed together in order to replicate the original order and sequence. So the question arises: should these two artefacts be displayed with their front façades on the same vertical plan or with their backs on the same vertical plan? Apparently, the actual display in the NAM Parthenon Gallery chooses the former one, which is to have each slab of Ionic Frieze displayed with its front façade at the same vertical plan (figure 5.45). It is not deniable that the whole ‘complete’ Ionic Frieze needs to be presented in its original sequence; however, this is not the only significant

meaning contained by the Ionic Frieze. This is just one important aspect within the stories of the Ionic Frieze. Could other stories actually be hidden within the Ionic Frieze? In keeping this prominent sequence of the Ionic Frieze, the Gallery design could seek for detailed spatial interpretation of other significant aspects such as the differences in thickness on a small area. The plane of this area could be designed as artefacts displayed with their back at the same vertical plane (figure 5.46). The small changes of the plan would definitely create spatial change which could lead to the new visual effect of viewing slightly different while walking in the tunnel space. Seen from the front of this area, the sequence of the Ionic Frieze remains the same, but a slightly different interpretation draws different stories from the artefacts.

Based on the above analysis, the current situation is that on one hand, the recreation of the original sequence of the Ionic Frieze more or less ‘hidden’ other stories contained by the frieze such as the Elgin issues, while on the other hand, the spatial quality of the tunnel space which embraces four sides of the concrete core feels almost the same. With one side composed as the Ionic Frieze but the other side composed as steel columns, the tunnel space is smooth but tasteless. They are in different lengths, but their quality is not tightly associated with various contents depicted on each face of the Ionic Frieze in the concrete core. Therefore, the space could not effectively direct visitors to view various representations depicted on different faces of the Ionic Frieze. Moreover, some visitors even lose their orientation while walking within this area.

Even though the design of the NAM Parthenon Gallery replicates the original orientation of the Parthenon Temple, which significantly reveals the original conditions of the sculptures and other points of obvious significance, it should also reveal the previous unexpected events, such as the events during the transformations of the Temple or the Elgin issues, and etc. As a part of the history of the Ionic Frieze, these unexpected stories likewise add meanings to the sculptures. In the new Gallery, to some extent that the ‘complete’ sequence of the Ionic Frieze could contribute to revealing symbolic meanings contained by the frieze as a cultural and historical

metaphor of the Panathenaia festival in its entirety. Many questions still remain though. Within the whole, however, what happened to the original fragmental Ionic Frieze in different colours? Are the white sculptures the original marbles? (Many visitors mistake the white replica for the original marbles, and are only able to recognise the original marbles when they see them from close up). What happened to the fragmental Ionic Frieze of apparently different thickness which could be viewed clearly in some areas in the NAM Parthenon Gallery space? What happened to those replicas of the Ionic Frieze with a small stamp on its left upper corner? What happened to those missing segments of the Ionic Frieze? Was some of the missing Ionic Frieze, such as the area replaced by a window, due to the transformational functions of the Parthenon Temple, such as a Christian Church? Some of these questions are answered by the audiovisual interpretations in the Gallery; however, the spatial design of the Gallery space more or less fails to reflect these aspects either in directing visitors to some areas to see the significance. In other words, the space could not reveal these aspects effectively. The tunnel space that embraces the Ionic Frieze is more or less meaningless. The loss of spatial interpretations of those hidden significance of the Ionic Frieze unavoidably expands the distance between the Ionic Frieze and the visitors.

Generally speaking, many of the visitors enjoy walking around the NAM Parthenon Gallery in a free way rather than viewing the artefacts of the Parthenon sculptures for the reason that the tunnel space is essentially for passing through rather than for staying and gathering in. For those who really pay attention to the artefacts, there are gaps between the translations of meanings of the artefacts and visitors who wish to understand artefacts at face value only. The 'complete' Ionic Frieze would probably only be interpreted as a symbol of the Panathenaia festival at a general level. Other significant stories, such as various representations contained by each face of the frieze, the transformations of the Parthenon Temple and etc, would remain unknown to them at more detail levels. Even though the legible spatial interpretation of the original orientation of the Parthenon sculptures is successful, visitors without much

background knowledge still ask questions such as; ‘Where are the original locations of the sculptures on the Parthenon Temple?’ while they are visiting the Gallery. According to the archaeologist Ms. Vouza, it is probably useful to not only highlight images of the sculptures in their original conditions on the Parthenon Temple, but also to present the inner link between the plan of the Parthenon Temple and the plan of the NAM Parthenon Gallery. However, Ms. Vouza was not quite certain to what extent these images would help visitors to understand basic questions, such as those listed above.

5.2.3 Lighting

As the principle architect of the New Acropolis Museum, Bernard Tschumi considered the lighting design to be an important aspect both for the new Museum and the NAM Parthenon Gallery. In his book, he noted that ‘the new museum can be described as an environment of ambient natural light, concerned with the presentation of sculptural objects within it, whose display changes throughout the course of the day’.³⁵⁴ Considered to be the most significant Gallery within the whole Museum, the NAM Parthenon Gallery where the Parthenon sculptures were to be displayed was constructed with sufficient glass windows and skylights which are used directly as a function of the light.³⁵⁵ However, do visitors realise such emphasis on spatial design while visiting the Museum? According to Ms. Vouza, the Archaic Gallery on the first floor was an example of the success of the lighting design within the Museum. The original idea of designing the Archaic Gallery was to collect all the sculptures from different temples on the Acropolis, and put them into a new gallery space with sufficient skylight. Originally, these sculptures were all immersed in the sufficient Athenian sunlight while they were located on the temples on the slopes of the Acropolis.

³⁵⁴ Poligrafa. *Bernard Tschumi: Acropolis Museum*, p. 72.

³⁵⁵ *ibid.*, p. 19.

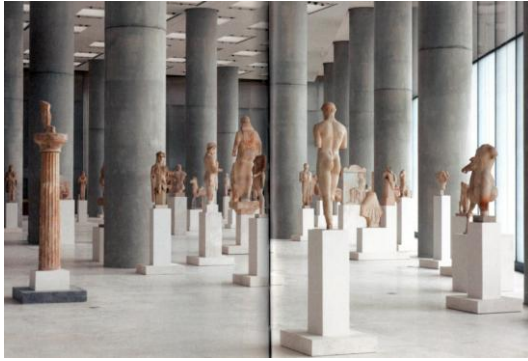


Figure 5.47 Archaic Gallery during the day
(Source: Poligrafa, E. *Bernard Tschumi: Acropolis Museum, Athens*, 2010, pp. 46-47.)



Figure 5.48 Archaic Gallery during the night
(Source: Poligrafa, E. *Bernard Tschumi: Acropolis Museum, Athens*, 2010, p. 51.)

As two stories high, the façade of the Archaic Gallery is divided into two parts. The lower part is frosted glass, in contrast with the shaded transparent glass on the high part. The skylights are also made of frosted glass. Therefore, the direct sunlight can be mediated to a gentle level through openings from aside and above. The area of the windows and the skylights are generally in equilibrium. The condition of light is steady and vivid. Therefore, when visitors visit the Archaic Gallery, sufficient sunlight is gently projected on the artefacts, which contributes significantly to the understanding of the original condition of the artefacts and their new condition within the gallery space. What is more, collecting all these artefacts once scattered across the Acropolis offers a new interpretation on the relationship between each artefact. They are no longer separate objects, but rather interact as a whole.

Based on the understanding of the lighting design in the Archaic Gallery, the lighting design in the NAM Parthenon Gallery likewise consists of two main parts (figure 5.49). During the daytime, the double glass façade enclosing the Gallery is the largest area where the natural light comes in. It also has shades which could be drawn in order to protect sculptures from being too exposed to the direct sunlight (figure 5.50). There is also a loop of skylight on the roof above the Ionic Frieze to let the natural light in (figure 5.51). With dominated sunlight coming from the vertical openings of the four sides, the area of the skylight above the Ionic Frieze is too narrow to exert influence on

the frieze.

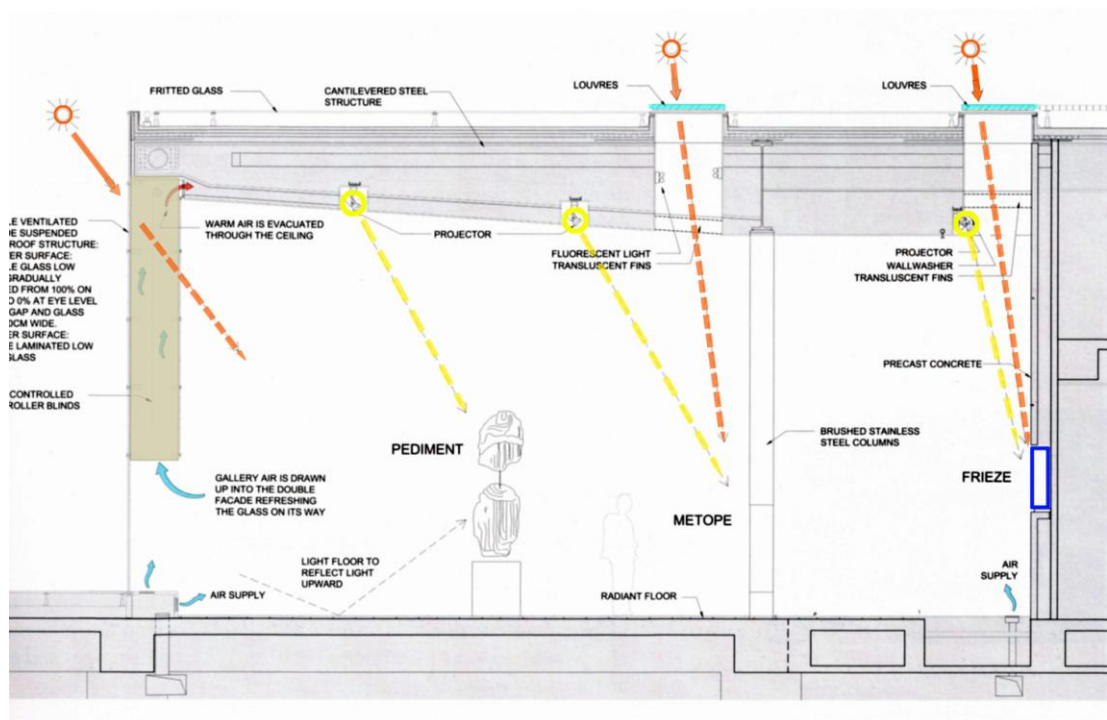


Figure 5.49 Lighting system of the NAM Parthenon Gallery - brown: double glass façade; orange: sunlight; yellow: artificial light; blue: 'Ionic Frieze'; cyan: louvre. (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 81, edited by researcher)



Figure 5.50 Detail of double-glass façade (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 117.)

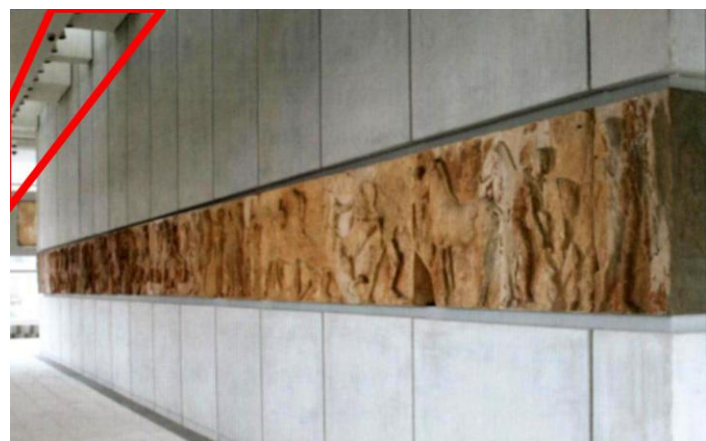


Figure 5.51 Area in front of the west Ionic Frieze - red: skylight. (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 59.)

In addition to natural light, there are many small installations of artificial light on the roof of the NAM Parthenon Gallery. These artificial lights usually turn on at six o'clock in the evening, but when the weather conditions are not ideal, such as on a rainy day or winter time, the artificial lights would be turned on earlier. Because of the installation of the artificial light, the Gallery looks absolutely different during the day and at night. The Gallery during the day is filled with sunlight and brightness. During most of the day, with children sometimes running along the columns, and adults strolling in front the sculptures, the Gallery space is busy and full of excitement and chaos under direct sunlight from the window façade.

Except for the legible and prominent spatial interpretation of the orientation of the Gallery, other interpretations all seem to be indifferent and ambiguous. During the night, the darkness conceals most views of the exterior so that the visitors can at least pay more attention to the sculptures. The visual link between the Parthenon Temple and the NAM Parthenon Gallery could not be closer and clearer with no disturbance from the surrounding landscapes. With gentle artificial light projecting on the sculptures, significant stories start to emerge from behind the marbles. The Gallery during the night is quiet but willing to communicate. As most visitors have the opportunity to visit the Museum both during the day and at night, their experiences of the Gallery could be very different.

Once stepping into the Gallery space, most of the visitors are drawn by the outside view of the Gallery space. Sometimes they are so excited about seeing the exterior scenes that they ignore the Parthenon sculptures, besides not paying attention to the lighting design of the Gallery space. Probably the architect's intention behind the lighting design of the Museum may only be understood and remembered by visitors' experience in the Archaic Gallery rather than in any other galleries.

5.2.4 Material

According to Tschumi, in order to achieve simplicity and sobriety, the main materials of the new Museum are concrete, steel and marble.³⁵⁶ The material of the structure is reinforced concrete. The glass facade is made of ‘purified low iron glass with an invisible selective UV coating and printed frit’.³⁵⁷ The inner core of the Museum is constructed with ‘precast and cast-in-place concrete with acoustical dampening perforations’.³⁵⁸ The skylights are frosted glass panels. The railings are made of glass panels with steel handrails. The floor of the Museum is marble. Beige marble is used for gallery spaces, and dark marble is used for circulation areas. In the NAM Parthenon Gallery, the columns are made of steel; the ceiling and the beams of the Gallery are concrete structures covered with plywood; the material of the inner core where the Ionic Frieze is located is concrete covered with cement; the pediments are displayed on marble pedestals; and the metopes are installed in steel niches.

Generally speaking, the materials used in the NAM Parthenon Gallery contrasts significantly with the materials used in the original Ionic Frieze. The original Ionic Frieze is made of marble; however all the material above and below it in the Gallery is concrete. When visitors see such a contrast, they start to look for the reason why the Ionic Frieze is displayed in such a way. When they learn how the architect interpreted it, they then understand that originally, as a continuous part, the Ionic Frieze was carved along the top of the Parthenon cella. Visitors may subsequently ask; if the Ionic Frieze is originally a part of the wall, why not display it on the marble wall or in a Neo classical gallery space rather than in such a modern gallery space? Ms. Vouza (archaeologist of the NAM Parthenon Gallery) stated that the Museum professionals do not want to copy the Duveen Gallery in the British Museum where the Elgin Marbles are displayed in what could be regarded as a Neo classic gallery. Therefore,

³⁵⁶ Tschumi, Bernard. *Construction fact sheet* [online]. New Acropolis Museum Website, 2008 [viewed at 26 Oct 2011], available from:

http://www.theacropolismuseum.gr/default.php?pname=PressReleases&art_id=9&cat_id=1&la=2

³⁵⁷ *ibid.*,

³⁵⁸ *ibid.*,

the design of the NAM Parthenon Gallery chooses to use the material in contrast with the marble material. It is also believed that the sculptures could be viewed more clearly against such a contrasting background. However, as mentioned above, there are six different types of Ionic Frieze in the Gallery.³⁵⁹ Their materials mainly vary from original aged yellowish marble, original white marble and white plaster. Hence, the cement and the concrete materials do not have any relationship with one of these materials - the yellowish marble, the white marble, or the white plaster. As discussed in Chapter Three, on its original context of the Parthenon Temple, the Ionic Frieze could be regarded as a ritual product of the activity of weaving.³⁶⁰ Compared with modern materials which stand for the beauty of machine and efficiency, traditional marble material symbolises the beauty of the craftsmanship. Thus, installing with modern materials, such a central concrete core could not be fully and reasonably considered as a proper background for displaying the ‘complete’ Ionic Frieze. It is certainly that in some museum cases that the museum frame could remain distinct from the artefacts. However, in this case, the materials used in constructing the Gallery space should consider relevance with the original context of the Ionic Frieze in order to reveal its cultural, historical and architectural significance of the Parthenon Temple.



Figure 5.52 Ionic Frieze of The Elgin Marbles in the Duveen Gallery in the British Museum (Source: Photo by researcher)

³⁵⁹ See 5.1.3 The Content of the Ionic Frieze in the Parthenon Gallery, p. 179.

³⁶⁰ See 3.2.3 Weaving the Culture: Significance of Spatial-Storytelling, p. 113.

The present colour of the Ionic Frieze of the Elgin Marbles which are displayed in the Duveen Gallery could never be compared with the original Ionic Frieze contained in the NAM Parthenon Gallery. According to Ms. Vouza, archaeologist in the NAM Parthenon Gallery, the Elgin Marbles in the British Museum were cleaned by a specific acid which could meanwhile damage the natural structure of the marble material. Therefore, it would not be difficult to observe that there are many dark areas on the Elgin Marbles in the Duveen Gallery. On the contrary, the Ionic Frieze displayed in the NAM Parthenon Gallery has been cleaned with laser technology. The Museum now has a programme called 'Conserving the Caryatids' which is about 'watching conservators do the delicate work of cleaning the Caryatids with advanced laser technology'.³⁶¹ Regardless of the original yellowish marble or the original white marble, the marble material can retain its originality and naturalness through this method. The passage of time has left traces on different types of the original materials. Whenever these original parts of the Ionic Frieze are noticed and observed, the sense of the past would come back. Hence, the contemporary material could not provide effective support in mediating the distance between different types of the original marble material, between the original marble material and the plaster, or between the original marble material and the concrete core, which is constructed completely with the 'unreasonable' materials of concrete and cement.

The main focus of this section has been on the spatial interpretation of the Ionic Frieze. In the next section, the focus is on an analysis of the audiovisual texts of the Ionic Frieze in relation to their location and presentations in the NAM Parthenon Gallery.

³⁶¹ Anon. *A Day at the Acropolis Museum*, Athens: The New Acropolis Museum, 2011.

5.3 Communicating in the Museum: Audiovisual Texts Translate Significant Meanings of the Ionic Frieze

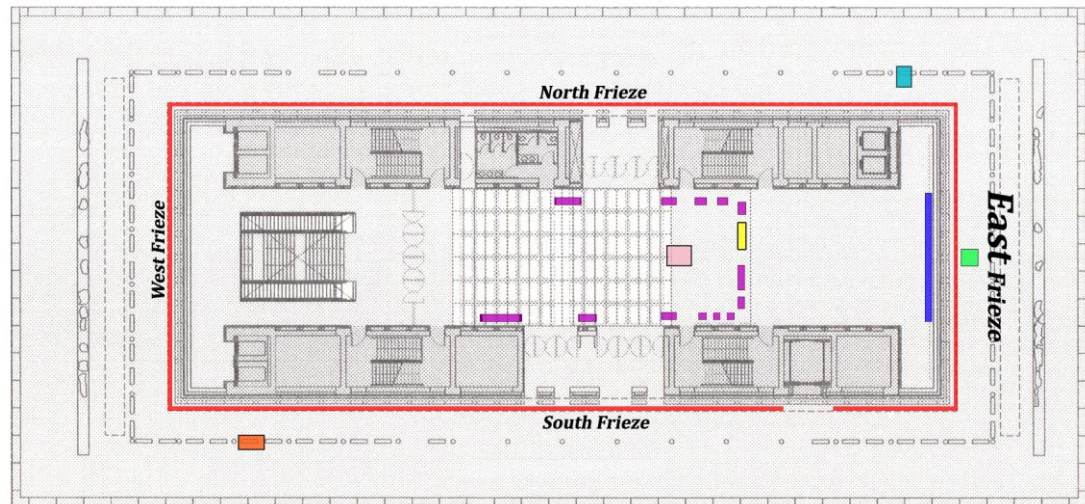


Figure 5.53 Floor plan of the NAM Parthenon Gallery with Audiovisual Interpretation on Ionic Frieze

In the atrium: yellow: general text board of Parthenon sculptures; pink: model display of the Parthenon Temple with detailed sculptures; purple: other displays of the Parthenon Sculptures (excludes the Ionic Frieze)

In the information centre: blue: animation;

In the gallery space: red: general text board below Ionic Frieze; green: special text board of presentation of the Goddess Athena identified on the east Ionic Frieze; cyan: original fragment of north Ionic Frieze on loan from the Vatican Museum; orange: original back of Ionic Frieze from which the surface was removed by Elgin
(Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

5.3.1 On-site

There are eight archaeologists working in the New Acropolis Museum - one in the NAM Parthenon Gallery and seven in other galleries. Wearing white badges as identification, they work six days a week from nine am to five pm. Since the Museum opened on October 2008, the Archaic Gallery on the first floor has achieved great success in combining the architectural space and the artefacts, drawing much attention from the visitors. Therefore, most of the time, the seven archaeologists are all needed in the Archaic Gallery to meet with the visitors.

It is really wise to have archaeologists present in the gallery space to communicate

with the general public during regular visiting times. On one hand, the traditional image of archaeologists as those whose job sets them apart from normal daily life is already out of date. The image of these who spend most of their time dealing with antiquities has been transformed into the image of a group with modern and frequently-participating professionals who are willing to deliver their knowledge to the general public. On the other hand, through exchanging ideas with the general public, archaeologists also could gain useful insights not only on the artefacts and museum collections, but also on how the modern people experience their lives as they are led in the museums. Compared with many other museums which do not have archaeologists in the gallery spaces, the visitors' experience can be very different by having the chance to talk with museum professionals. Many underlying stories of the artefacts could be translated through dead texts into a lively dialogue, or through written texts into verbal texts in terms of questions and answers, which helps the general public to better understand the significance of the artefacts.

In the new Museum, all the tour guides are independent, since the Museum does not offer such a service. According to Ms. Vouza (the archaeologist in the NAM Parthenon Gallery), the guides are usually trained for two years. Therefore, most of them have the relevant knowledge on how to interpret the significant stories contained within the Ionic Frieze, as a result of which visitors who participate in tours can be led through the Museum in an organised way.

5.3.2 In the Atrium

Being exhibited within a glass vitrine, there is a physical model of the Parthenon Temple at a scale of one to 75 in the information centre of the NAM Parthenon Gallery. Made of white plaster, the physical model is sitting on a base with dimensions of 1,100 millimetres long, 600 millimetres wide and 1,200 millimetres high (figure 5.55). With every detailed sculpture and architectural element carved on it, such a physical model should be able to offer visitors a prominent experience of the original condition of the

Parthenon Temple and its sculptures. However, there is no indication of the significant material of marble or the colour theme used on the Ionic Frieze. It would be very easy to mistake the single colour representation of the model for the original condition of the Temple. Besides, it is very difficult to see the Ionic Frieze because its original location is behind the metopes.

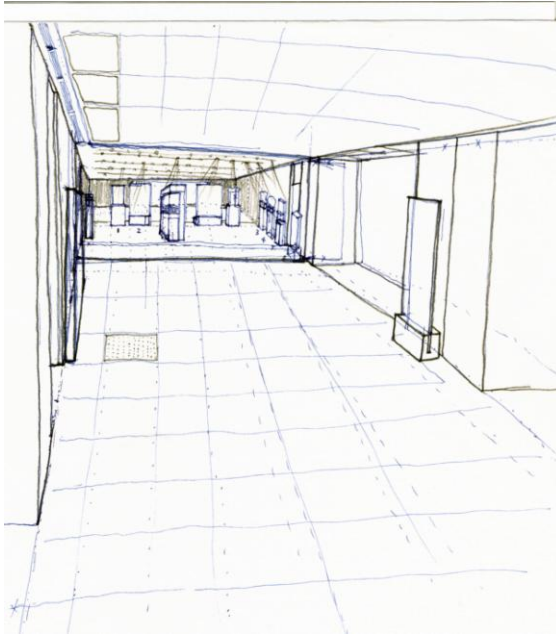


Figure 5.54 Sketch of the physical model and other displays in the atrium - Perspective B. (Sketched by researcher)

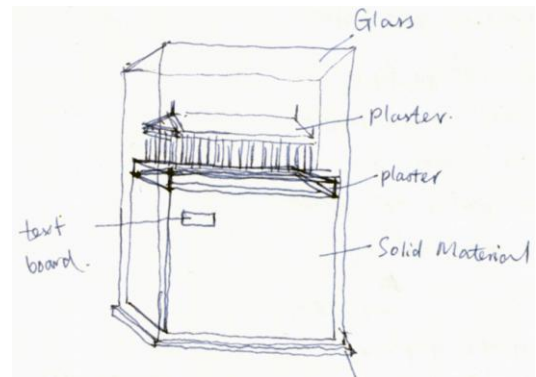


Figure 5.55 Model display (Sketched by researcher)

Displayed on the 1,200 millimetres high base, adults need to bend down to see the Ionic Frieze and the detailed grid-style interior roof above it. If visitors have some background knowledge of the Parthenon Temple, it would not be a problem for them to realise the location of the Ionic Frieze. However, visitors without much background knowledge may encounter some problems; such as how could they understand the significance of this model display in relation to the Ionic Frieze? Furthermore, without using the original marble material, how could visitors understand the significance of the roof made of marble above the Ionic Frieze which once allowed sunlight in for those ancient observers of the original Ionic Frieze?

The Parthenon Temple is a functional building rather than a shelter. With every detailed exterior architectural element and sculpture presented on it, the interior of the physical model cannot be seen. Therefore, within all significant messages of the Parthenon Temple, only those presented on the exterior of this model can be read by the visitors. A small part of the messages of the Ionic Frieze in the semi-opened space behind may also be clear to visitors with some background knowledge. However, the message relating to the interior of the Parthenon Temple could never be conveyed through this model display.

Excluded from clear indications of colour, original marble material and light on the model display, the message-conveying process becomes harder when visitors change their view from the exterior of the model to the interior. According to the observations made of the visitors, many of them leave after just a quick look. Fortunately, some of the messages presented through this model are acknowledged from the video presentation displayed in the information centre nearby. However, should the significance of the model display in conveying the messages be replaced by animation? It appears that the model display produces ambiguities and uncertainty, some of which can only be confirmed from the content of the video presentation.

Every interpretation should have its own significance in conveying the messages. It should not be designed or presented as a riddle for the visitors to guess. It should not throw ambiguities from one interpretation to another, which may result in confusion in the process of communication. For the purpose of communication in the museum space, the significant messages should be ‘repeatedly’ emphasised in terms of different interpretations, rather than presented ambiguously in one interpretation, and then having to seek for explicitness in another interpretation.

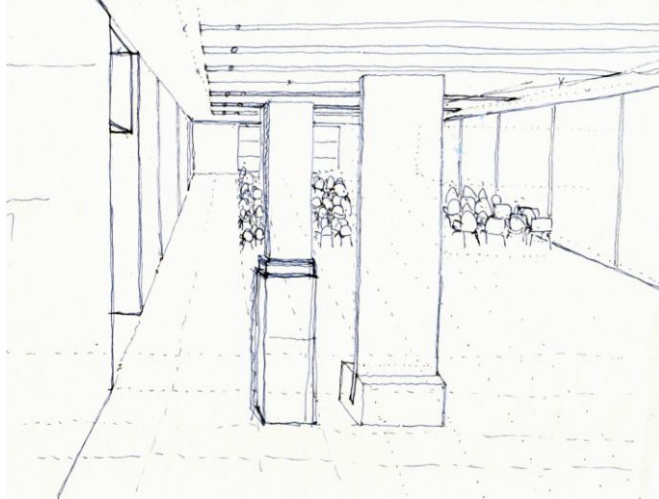


Figure 5.56 Sketch of the text board and the information centre -
Perspective A. (Sketched by researcher)

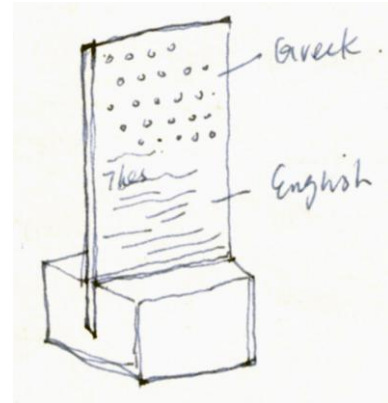


Figure 5.57 Sketch of text board
(sketched by researcher)

The text board in the information centre is entitled 'The Parthenon Sculptures' (figure 5.57). It is a frosted glass board with written text located on a base with dimensions of 340 millimetres wide, 900 millimetres long and 300 millimetres high. The text written on the text board consists of Greek on the upper section, and English on the lower section. The content of the text relates mainly to the three groups of the Parthenon sculptures: the metope, the pediments and the Ionic Frieze. The text for interpreting the Ionic Frieze focuses on the artefacts' underlying significant meanings: the city's major celebration - the Great Panathenaia festival. Detailed descriptions of all important aspects of the festival are narrated as:

This festival was held every four years and entailed: religious rites, sacrifices, athletic contests and musical competitions. The most important and official day of the festival on the 28th day of the attic month Hekatombaion, in the middle of August, and was celebrated as the birthday of the goddess. On this way, Athens's citizens and metoikoi (foreign residents) formed a procession that traversed the city and ended at the temple of the Athenia Polis (the Old Temple that was later replaced by the Erechtheion) in order to present a new peplos to the cult statue at the goddess. It is this procession which unfolds across the 160 metres of Parthenon frieze.

Although the significance of the meanings of Ionic Frieze is fully offered by the content of this text board, the board is less effectiveness when read because all text is

monotone, with no highlight or contrast between sections of text which should be emphasised for specific understanding.

5.3.3 In the Information Centre

The video presentation is installed in the information centre, directly facing the escalators where visitors come up from the lower galleries. It is presented as a film with sound lasting about 15 minutes; there is an English version with Greek subtitles and vice versa. There are two main parts to the video presentation. The first part which focuses on interpreting the background information on the Parthenon Temple lasts about seven minutes. The second part, which also lasts about seven minutes, focuses on interpreting the Parthenon sculptures. By watching and listening to the audiovisual interpretation in the film presentation, visitors can also see some analysis with colourful visual highlights; for instance, the Doric columns are highlighted while the film is interpreting the refinements of the Parthenon Temple, the pediments revolve while interpreting how they were originally carved in the round, a colourful model of the Parthenon Temple and the surrounding site with movements of human figures are displayed for interpreting succeeding transformations of the Parthenon Temple, and so on.

Within all these highlights presented through the video presentation, the colourful model interpreting transformations of the Parthenon Temple has a very good visual impact on relating to visitors what happened to the Temple during different historical time periods. These remote stories are no longer just images in visitors' minds, but are presented as a reliable and understandable visual-story. Regarded as the most important part of the Parthenon Temple, such effective visual analysis is however not applied frequently when interpreting the Parthenon sculptures. Therefore, the richness of the sculptures is not narrated to the public effectively enough. Even though the video presentation emphasises the relationships between the three groups of sculptures in a cohesive manner, it does not focus much on detailed interpretations of individual

sculptures. According to the archaeologist Ms. Vouza, this film is a long-term project, and the Museum professionals have already started to consider adding other detailed animations.

Inasmuch as the NAM Parthenon Gallery is specifically designed for housing the Parthenon sculptures, the video presentation bridges the distance between visitors and the Parthenon Temple, and also bridges the distance between the Parthenon Temple and the British Museum; however, it does not explain in detail the reason why the Gallery space is designed in this way. As the most important aspect of the Gallery design, there is no written text to indicate this. Even though the video presentation is a very effective way for people to understand the Parthenon Temple, visual and written texts also need to convey the significant message contained in the design of the NAM Parthenon Gallery in relation to the Parthenon Temple, including the site plan and the highlighted visual or text boards located in the information centre, to ensure that visitors realise the speciality of the uniqueness of the Gallery.

What is the relationship between the NAM Parthenon Gallery and the Parthenon Temple? Both the architectural space and the artefacts are silent objects - they cannot speak for themselves. It is the audiovisual texts that help them tell stories to the visitors. Therefore, audiovisual texts not only need to bridge the distance between the artefacts and their original stories in different times and places, but also the distance between the artefacts and their new context, and distance between the artefacts' former contexts and present contexts, in the manner of a verbal text representation, or in the manner of visual text or written text representation.

5.3.4 In the Main Gallery

The text board, which runs along below the 'complete' Ionic Frieze located in the middle of the interior concrete wall, is 220 millimetres above the Gallery floor and 300 millimetres wide. Cooperating with the story sequence depicted on the Ionic

Frieze, the west board consists of 16 individual text boards, the north board consists of 43, the east board consists of eight, and the south board consists of 40. Because of some missing sections of the Ionic Frieze, there is a 2,800 millimetres long empty space on the south text board. The whole text board is made of steel with black colour text printed on it.



Figure 5.58 The Ionic Frieze and the text board below - red: text board (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 87.)

The entire content of the text board focuses on interpreting the events that took place during the Panathenaia festival. Through a detailed introduction to the identities and the actions of the human figures, visitors can understand what is depicted on the marble Ionic Frieze. Even though the west, the south and the north text boards have a few sketches depicting the image of the original Ionic Frieze, the whole text board is presented mainly through written text. Through observing visitors' interaction with the text board, the effectiveness of the text board in interpreting the significant stories depicted on the Ionic Frieze appears to be limited. Referring to the content of the third individual text board of the east Ionic Frieze for example:

EIII, 7-19 (BM and fragment Acr.1066)

Eleven girls and two men are depicted. The girls (7-11) carry jugs. Ahead of them are two pairs of girls (12-13 and 14-15) each carrying a tall stand suspended from ribbons. At the head of the procession are two girls without equipment (16-17) preceded by two men conversing (18-19); they are the Eponymous heroes, founders of two of the ten Attic Tribes. One of these (18) might be Theseus, the mythical founder of the Panathenaia.

In the above written text, BM stands for the British Museum, and Acr. stands for the New Acropolis Museum. The key question that could be raised relating to the interpretation of the text board is: If the numbers followed after personal pronouns stand for human figures depicted on the Ionic Frieze, how could visitors identify each human figure on the marble Ionic Frieze? The underlying meanings of the Ionic Frieze should not be translated directly into written text for the reason that the Ionic Frieze is originally presented as both spatial- and visual-storytelling through marble representation rather than written-storytelling. Therefore, its content should firstly be translated into visual-storytelling; such as human figures outlined by numeric order or different colours, following which the written text could offer a more detailed interpretation.

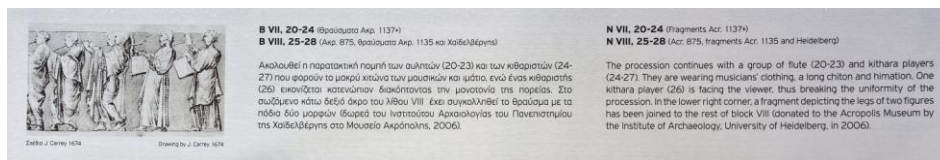


Figure 5.59 Sample of text board (Source: New Acropolis Museum 2011)

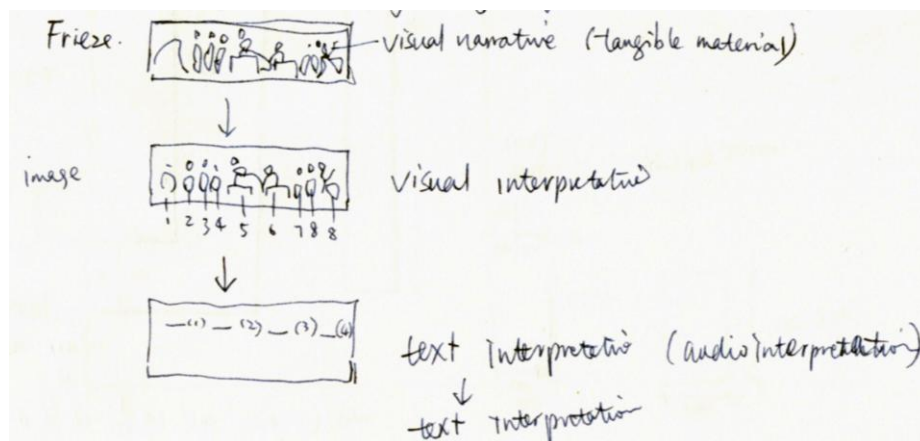


Figure 5.60 Sketch suggests the translations of meaning from marble presentation to visual level, and to text level

(Sketched by researcher)

Moreover, an image with colourful highlights and clear numbers would clearly connect the content of the text board and the marble representation. With clear indications of each figure, the written text could continue to detail the events of the procession. Therefore, the process of translation should be divided into different levels in order to achieve a psychological level of understanding among the visitors. Unlike those in the museum professionals, most visitors are not familiar with the professional knowledge relating to the Ionic Frieze; even for those who have some background knowledge, it is necessary to offer highlighted images of the Ionic Frieze in order to convey the significant meanings. Because the text board is perpendicular (horizontal) to the vertical wall where the Ionic Frieze is installed, the colourful effect of the text interpretation could not affect the entirety of the elevation of the Ionic Frieze and other architectural elements of the space; more, it will definitely draw more attention from visitors. Visitors may even notice the coloured text board from a distance when they enter the NAM Parthenon Gallery.

As a whole, the significance of each slab of the Ionic Frieze varies. Some of slabs are repeatedly carved in order to fill in the sufficient space, some of them are depicted as immortals, with the Goddess Athena identified on one slab. Therefore, the content of the text board could also be developed into different levels either based on presentations of activities or identities of figures, or both, such as the general level of activities during the Panathenaia procession and identities of the figures, the higher level of groups of immortals, and the significant level of identification of the Goddess Athena. Therefore, the significance of the Ionic Frieze can be interpreted from the entire level, to a collective level, and finally reaches the individual level.

From April 2011, a special text board combined with the ‘children’s programme’ is located in front of the central east text board of the Ionic Frieze (figure 5.61). Targeting children who visit the New Acropolis Museum with their families, the main theme of this programme is about searching for 12 different representations of the Goddess Athena amongst the exhibits of the permanent collection. The 12

representations are shown on an enlarged Museum map with their locations in different gallery spaces. Together with the special text board standing in front of artefacts indicating the representations of the Goddess, the representations can easily be found by the children. One of 12 representations of the Goddess Athena is identified on the east side of the Ionic Frieze in the NAM Parthenon Gallery. In the centre area of the east Ionic Frieze, there is a special text board standing next to the east text board of the Ionic Frieze. It is a coloured square plastic board about 45 degrees with dimensions of 300 millimetres long, 300 millimetres wide and 850 millimetres above the floor (figure 5.61).

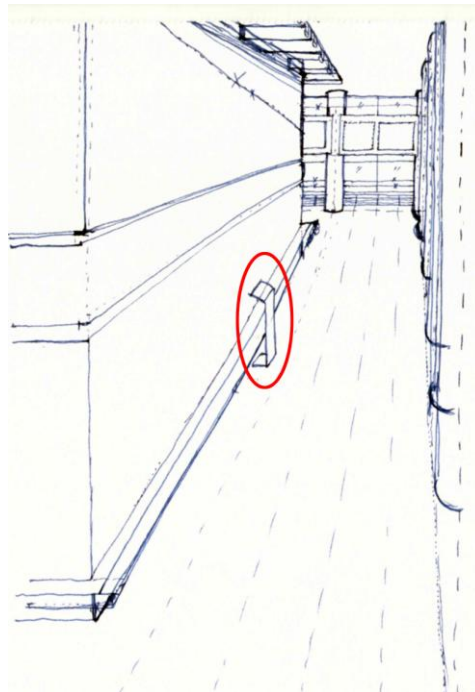


Figure 5.61 Sketch of the special text board in front east Ionic Frieze - Perspective C - red: special text board
(Sketched by researcher)

The content of this special text board consists of an image of Athena and written text. The image on the upper left corner is almost the same as the scene depicted on the centre of east Ionic Frieze. The written text consists of Greek on the upper section and English on the lower section. Different from the text board below the Ionic Frieze, there are a few highlights on this special text board. Take the complete content of this

special text board for example:

The Panathenaia Athena

The Panathenaia celebrated the birth date of the goddess Athena. During the Festival, the Athenians formed a great procession and ascended onto the Acropolis, in order to offer a sacrifice to Athena and wrap her statue with a new garment, the **peplos**, which was adorned with Gigantomachy scenes. The procession, represented all along the Parthenon frieze, is attended by the twelve Olympian gods, among them the goddess Athena. It is easy to identify her from the **aegis** on her knees.

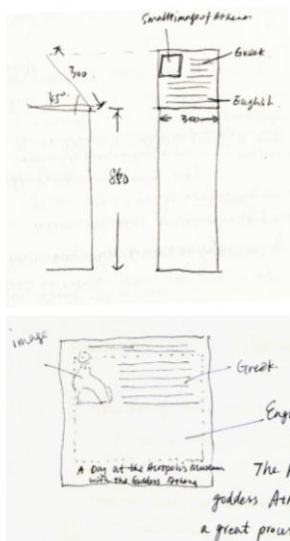


Figure 5.62 Details of
special text board
(Sketched by researcher)

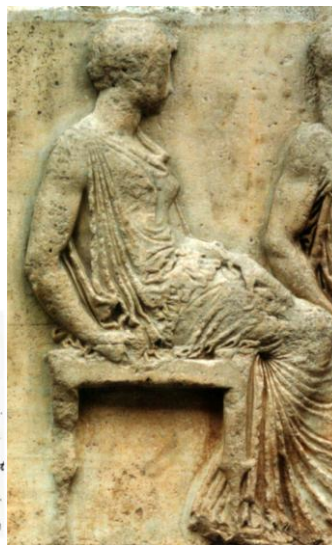


Figure 5.63 Marble
presentation of Athena
identified on the east Ionic
Frieze (Source: Leaflet of New
Acropolis Museum family
pack 2011)

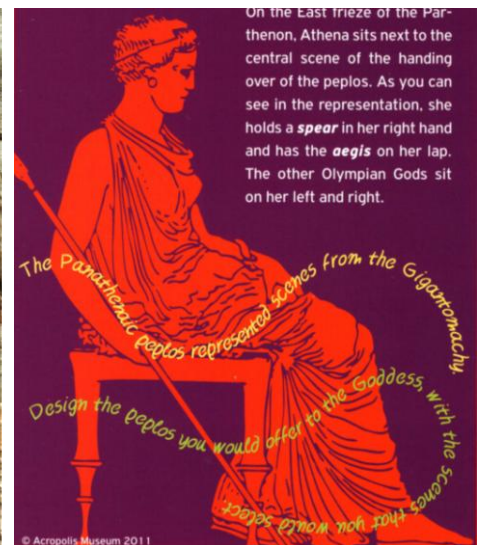


Figure 5.64 Image presented on the special
text board (Source: Leaflet of New
Acropolis Museum family pack 2011)

It can be clearly seen from the text above that two words are highlighted in bold; the peplos and the aegis. According to Ms. Vouza, these are the key elements for identifying the Goddess Athena. However, visitors may ask: What is the peplos? And what is the aegis? Even though there is an image of the Goddess on the text board, it is still not that easy for visitors to recognise her on the marble Ionic Frieze. If there is a highlighted image with a number of figures presented on the text board below the

Ionic Frieze as discussed in the former sub-section, the distance between the marble representation and the image on the special text board could be mediated through the text board below the Ionic Frieze. It is not about repeating the content, but really connecting and emphasising the significant meanings of the Ionic Frieze through different layers of interpretations.

Conclusion on the written text

Based on the above paragraphs, it would not be difficult to find that there are three main issues of the text interpretation on interpreting the marble Ionic Frieze:

- Firstly, visual text with colour highlights or bold graphics could be regarded as the key in connecting the marble representation and text interpretation. The new Museum design group should develop detailed visual interpretation of the content depicting on the Ionic Frieze. The content of the Ionic Frieze should be translated first from the marble material level to the analytic visual level, and then to the text level.
- Secondly, the text board below the Ionic Frieze could be regarded as the middle level between the general text board of the Parthenon sculptures in the information centre and the special text board in front of the east Ionic Frieze. Therefore, containing the largest interpretive area amongst the three, the content of the text board below the Ionic Frieze should cover both the general message contained by the Ionic Frieze and also the specific messages. These specific messages could be selected from the six different types of the Ionic Frieze. Each could also be selected according to the significant representations of the Ionic Frieze, and so on. In other words, the content of the text board below the Ionic Frieze could also vary from the general level to the detailed level with reference to the Ionic Frieze constituted either as a sequence or as an individual slab.
- Thirdly, if there are two different types of text boards used to interpret the same artefacts, such as the special text board depicting the representation of Athena on the east Ionic Frieze and the text board below it, it may become necessary to bridge these two text boards together through the content of their interpretation. For instance, visitors might be attracted by the special text board because it is obviously standing in

the colonnaded space as a separate visual element. Then, the content of the special text board not only needs to bridge the distance between itself and the marble Ionic Frieze, but also needs to bridge the distance between itself and the content of one of the text boards below the section of the Ionic Frieze it relates to. Hence, the understanding of the representation of Athena depicted on the Ionic Frieze could be translated from the marble material onto the special text board, and then further emphasised through the text on the board below the Ionic Frieze, and finally refer back to the sculptural presentation displayed on the wall. From an abstractive view, the process of understanding could be understood as starting from the spatial level to the text board below, then to the special text board, and finally returning to the spatial level. Indeed, which text board the visitor should pick up to read first may not be such an important issue; it is more important to establish the relationships between multiple interpretations for one artefact.

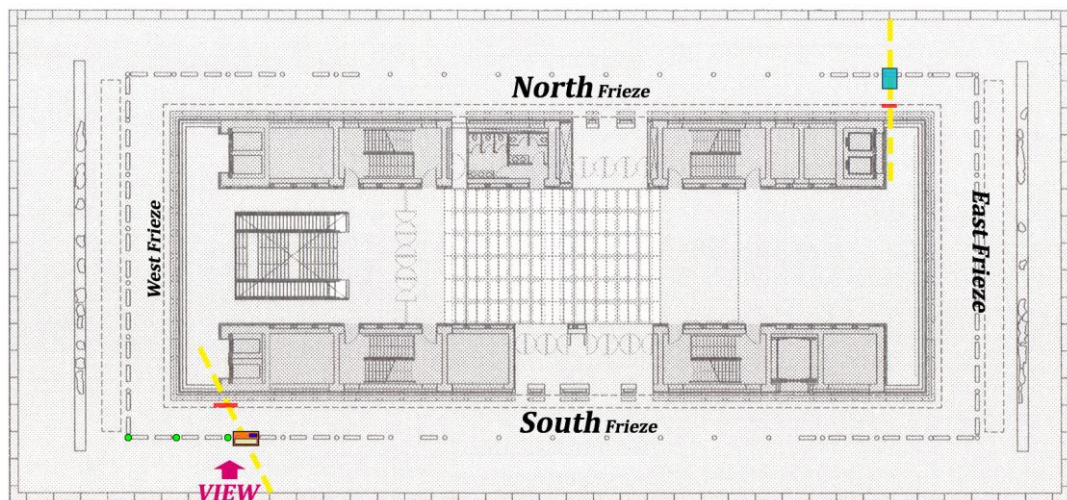


Figure 5.65 Floor plan of the NAM Parthenon Gallery - orange: Original back of Ionic Frieze from which the surface was removed by Elgin; red: Ionic Frieze displayed on the central concrete; Green: column; yellow: visual link between the Ionic Frieze displayed on the core and the special display; purple: view point; cyan: original fragment of the north Ionic Frieze on loan from the Vatican Museum. (Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

Seen from the plan of the NAM Parthenon Gallery space, there are two special displays on the interpretation of the Ionic Frieze; however, neither of them is presented

on the architectural plan of the Gallery.

Standing on a platform measuring 1,200 millimetres long, 600 millimetres wide and 200 millimetres high, the special display is on the back of the fourth slab of the original south Ionic Frieze removed from the Parthenon Temple (figure 5.66). The surface of the original fourth slab is displayed in the Duveen Gallery of the British Museum. The one that is displayed in the central concrete core of the NAM Parthenon Gallery is only a plaster replica donated by the British Museum along with other replicas.

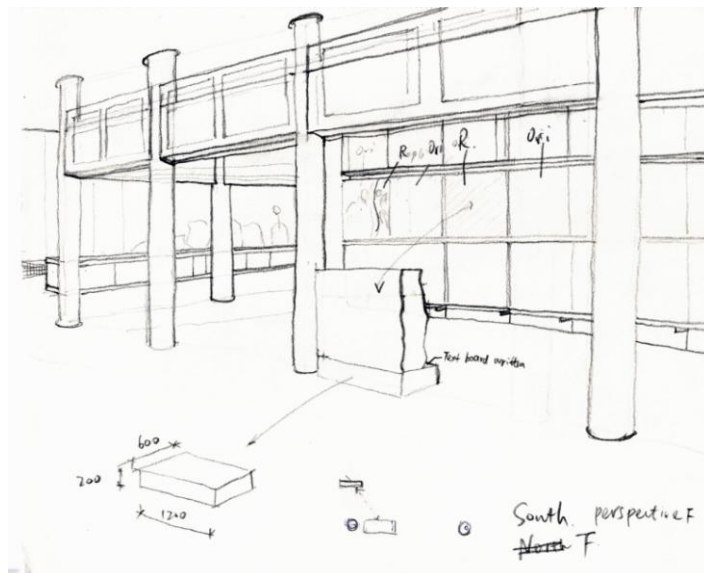


Figure 5.66 Sketch presents the back of the original Ionic Frieze and the replica of its front part displayed on the wall (Sketched by researcher)

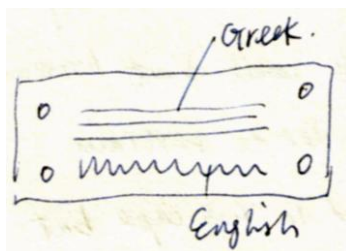


Figure 5.68 Sketch of the label (Sketched by researcher)

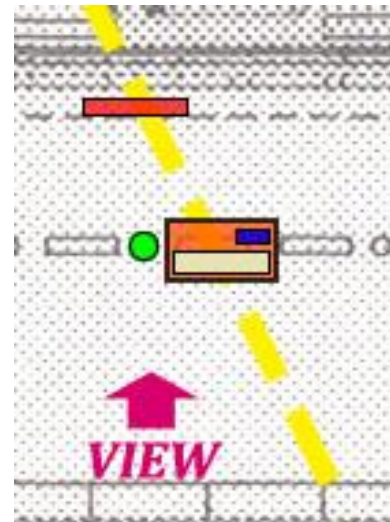


Figure 5.67 Enlarged plan of the display - red: fourth slab of the original Ionic Frieze; orange: special display; green: third column; blue: label; beige: original back (Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

To see the artefacts as depicted on the plan, the replica is displayed just behind the third column in the south side of the NAM Parthenon Gallery. The special display is located to the right side of the third column right below the fifth metope. Without any

direct visual link between these two artefacts, the locations of the replica and the special display are obviously contextually disconnected. With a small label on the right corner of the display, the identification of the display is sadly ambiguous (figure 5.68). Displayed exactly below the fifth metope, many visitors mistake this special display as an object relating to the metopes rather than to the Ionic Frieze. Taking the content of the label as an example:

This is the third block of the south frieze, from which Elgin's crew detached the sculptured surface, as testified by the traces. Opposite, a cast copy of the removed relief (SIII-8-9)

Through the above description, a number of questions could be posed: Which is the third block? Where is the south frieze? Where is the exact location that the word 'opposite' is referring to? Even though many visitors could easily get a Museum plan with a clear circulation, there is no detailed Gallery plan offered. For the professional people, both the 'third block' and the 'south frieze' represent extremely basic knowledge; however, to the general public, they need to be interpreted with more assistance. The word 'opposite' is a strong reference, however, to the visitors, some of whom may find it difficult to sense its importance because it is not being presented in a highlighted way. Furthermore, for those who find its meanings, it is still difficult to pinpoint which slab is referred to. These problems mean that visitors remain disappointingly ignorant of the display; some visitors just touch it and walk away; others just read the label and walk away; some read the label and look back to the Ionic Frieze - however they are unsure of the exact block they are supposed to be referring to; some see the marble and then look up to the metope. Thankfully there are some visitors who not only see and read but also find the right slab eventually; however, for many, this significant display is absolutely incommunicable. With such significant meanings to impact to the visitors relating to how Lord Elgin removed the Ionic Frieze from its original location, the present display set-up is indeed disappointing. The same problem can also be seen in another display of the original fragment of the fifth slab of the north Ionic Frieze on loan from the Vatican Museum

(figure 5.69), and a text board below the Ionic Frieze interpreting the issues of the missing Ionic Frieze, which has been removed from the Temple in order to meet the function of the Christian Church and replaced by a window.

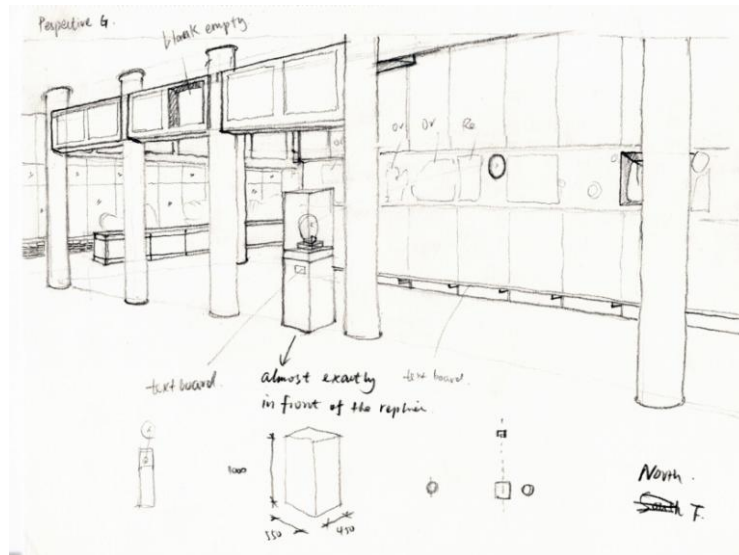


Figure 5.69 Sketch presents the original fragment of Ionic Frieze on loan from the Vatican Museum and the replica of this original fragment displayed on the wall (Sketched by researcher)

Based on the preceding analysis, three crucial aspects can be drawn from the display design:

- Most of the time the museum design group considers that audiovisual texts constitute a direct interpretation of the artefacts. Hence, they sometimes ignore the representation of the content of audiovisual texts. It is not only about presenting a normal sentence to the visitors, but about interpreting the meanings with different highlights, with images, and with more user-friendly terminology. Take the content of the back original marble mentioned above for example (figure 5.66); each text is presented in the same size and same colour on the small label. Does each of these indicate the same meanings? The answer is clearly not - the 'third' and the 'south' are important words that need to be emphasised based on their referential situation. Also, the word 'opposite' needs to be explained, or exchanged for a longer but easier sentence such as 'please look back, there is a white replica of the removed relief

within the original marbles.’ The word selected in the text interpretation needs to be ‘spoken’ rather than literal.

- The location of the display was not organised very well during the design process. The NAM Parthenon Gallery space successfully interprets the original horizontal location of three main parts of the Parthenon sculptures. However, during the transformations of the Parthenon Temple, what happened to these sculptures, especially the Ionic Frieze? Should these stories be excluded from the main stories told by the Ionic Frieze? Should this be excluded from the space design? Every display should be included in the design process for the reason that they are part of the space, of the architecture. Otherwise, displays would be treated like attachments added to the space after the design and the construction process. Such arrangement is neither logical nor effective. Various meanings of the artefact is highly weakened - it is not about to emphasising the political issues but about interpreting the past. The past of the Ionic Frieze is not only about the original depiction of the Panathenaia festival ever happened in the city and on the sacred Acropolis site, but also about what happened to the Ionic Frieze during the transformations of the Temple, and how it was removed and taken by Lord Elgin to another place; how it was displayed in the British Museum in London and other museums; what its present condition in the New Museum is, etc. It is not only the original depiction of the ritual event, but the traces of different times that make these artefacts distinguished. When the Ionic Frieze was transformed along with the transformations of the Parthenon Temple and the Acropolis Site, its meanings accumulated. It is not dead stone but a living artefact, like a human travelling around the world, it has been moved to different places, meeting different people and experiencing events in different times and places. The design of the NAM Parthenon Gallery thus needs to reflect the ‘lifetime’ experiences of the Ionic Frieze. The moment visitors enter the Gallery, they actually embark on a journey through which they are guided to experience these stories about when and where the Ionic Frieze ever lived, from the modern present tracing back to its ancient origins. The moment the chronology of the Ionic Frieze is completed, the memory of the story would then be retrieved and completed by the observers.

5.4 Summary - Scales of Context

5.4.1 ‘Complete’ Ionic Frieze and the Parthenon Temple and the Urban



Figure 5.70 The west colonnade space of the Parthenon Temple (Source: Tournikiotis, P. *The Parthenon and Its Impact in Modern Times*, 1994, p. 92.)



Figure 5.71 The west colonnade space of the Parthenon Temple - red: Ionic Frieze (Source: Tournikiotis, P. *The Parthenon and Its Impact in Modern Times*, 1994, p. 1.)

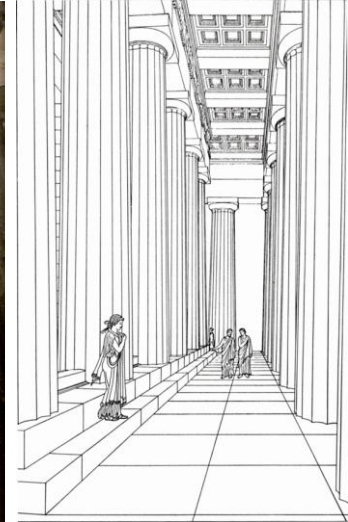


Figure 5.72 A perspective reconstruction from the west pteroma (Source: Tournikiotis, P. *The Parthenon and Its Impact in Modern Times*, 1994, p. 91.)

In order to replicate the original orientation of the Parthenon sculptures mainly on the Ionic Frieze and the metopes, the architectural form of the central concrete core and the columned space of the NAM Parthenon Gallery both adopted the same dimension and rectangular form of the original Temple. Without having eight columns standing on the east and west sides of the central concrete core, the surface of the central core is an enclosed wall installed with the Ionic Frieze. The columns in the Gallery are exactly the same number as the original 46 columns. The columns are much thinner than the original Doric columns. The deduction of the scale of each column enlarges the space between each column. Therefore, the colonnaded space formed by the new proportion of the columns in the new Gallery weakens the spatial coherence which was so excellently created on the original Temple.³⁶² Also, the height of the Gallery is

³⁶² See 3.2.2 Medium of Spatial-storytelling, pp. 110-111.

only approximately half of the original height of the Temple. Therefore, the new colonnaded space could not attain the original dramatic and spiritual atmosphere of the Temple. On the original Temple, the Ionic Frieze could only be seen from below through the screen between the Doric columns where the metopes stands. Therefore, the installation of the Ionic Frieze in the NAM Parthenon Gallery successfully imitates and reflects this key aspect of the original design on the Parthenon Temple. It is clear that Tschumi did not intend to represent the Parthenon Temple in this design; however, the physical installation of the design of the Gallery space is not strong enough to reflect various symbolic meanings contained by the Ionic Frieze as a significant ritual metaphor of the Panathenaia festival.

Based on the above description of the form and the proportion of the Gallery, it could be easy to find from the site plan that both the central core and the columned space are parallel to the original Temple. Regardless of standing on the Acropolis or in the NAM Parthenon Gallery, such a strong geographical link naturally and visually establishes the urban relationship between the Gallery and the original Temple. Considered as the unique features on the Parthenon Temple, the reconstructed spatial-storytelling depicted on and through the Ionic Frieze starts to enter dialogue with the ancient Temple and the sacred site within a new but relevant context in the contemporary era. Transforming from entirety to fragments and back to 'complete' again, the major ritual significance of the Ionic Frieze as a symbol of the Panathenaia festival, as originally in continuous order and sequence, is clearly positioned in this urban interpretation.

5.4.2 'Complete' Ionic Frieze and the New Acropolis Museum

The circulation system is considered to be one of the key aspects designed by the architect. The sketch presented in the former section shows not only his concerns on arranging the spatial sequences of visiting the galleries as analogous to ascending the Acropolis, but could also be read as ascending through layers of various time

periods.³⁶³ Therefore, if the circulation route could be regarded as a successful imitation of ascending the Acropolis, as questioned in the former section, could the experience of climbing the Acropolis Hill on foot be replaced by the escalators? At this point, the question remains; however, its answer will be found in the comparison between the circulations of visitors within the two Parthenon Galleries in the next chapter.³⁶⁴

5.4.3 ‘Complete’ Ionic Frieze as an Original Four-sided Sequence and the NAM Parthenon Gallery

Situated on the uppermost place of the whole Museum, the ‘complete’ Ionic Frieze occupies the middle area of the central concrete core of the NAM Parthenon Gallery. Located behind the metopes on the original Temple, it is now displayed at a lower level compared with the metopes. Even though the concrete core is parallel with the Parthenon cella and has the same dimensions as the cella, its functional meaning has already changed. The interior space of the Parthenon cella is the most sacred place of the Parthenon Temple - the place where the statue of the Goddess Athena is housed. However, the interior space, if it can be so regarded, is the information centre, the atrium, and the transportation area of the NAM Parthenon Gallery.³⁶⁵ Displayed both on the surface of the central structure of the Parthenon Temple and the Gallery, the significance of the ‘complete’ Ionic Frieze as a symbolic metaphor of the Panathenaia festival could not be understood as the same; the former one enclosing the most sacred space, and the latter one enclosing the supplementary space. What is more, the interior design of the main NAM Gallery into tunnel-like spaces aggravates visitors’ ignorance of the Ionic Frieze. The ‘complete’ Ionic Frieze becomes the background for other Parthenon sculptures. Under such conditions, it could not communicate significant meanings - such as ritual meaning of a symbolic metaphor, architectural meaning of a continuous spatial-storytelling of the Panathenaia festival, and also political meaning

³⁶³ Poligrafa. *Bernard Tschumi: Acropolis Museum*, p. 16.

³⁶⁴ See 6.1.2 Circulation, pp. 229-232.

³⁶⁵ See 5.1.2 The NAM Parthenon Gallery, p. 177.

for the Elgin Marbles - with the visitors successfully. Therefore, with only structural aspects successfully adopted from the Parthenon Temple in designing the NAM Parthenon Gallery, the significant meanings of the Ionic Frieze mentioned above could not be translated successfully merely from the structure of the Gallery space.

Moreover, during the transformations of the Parthenon Temple, portions of the Ionic Frieze went missing. Even though the Ionic Frieze is displayed as its original sequence, the Ionic Frieze could never be complete again in the realistic sense. For those missing sections, which could be researched either from the literature or from scholars' drawings, the text board below the Ionic Frieze could at least have offered the messages contained by the Ionic Frieze. However, for the small part of the south Ionic Frieze with no text board interpretation below because Museum professionals could not find relevant records on them, this small part of the missing Ionic Frieze seems to be totally forgotten based on how they are treated in the NAM Parthenon Gallery space. The missing metopes are also treated in the same way - with a blank area left between each column from bottom to the top and no audiovisual interpretation.³⁶⁶

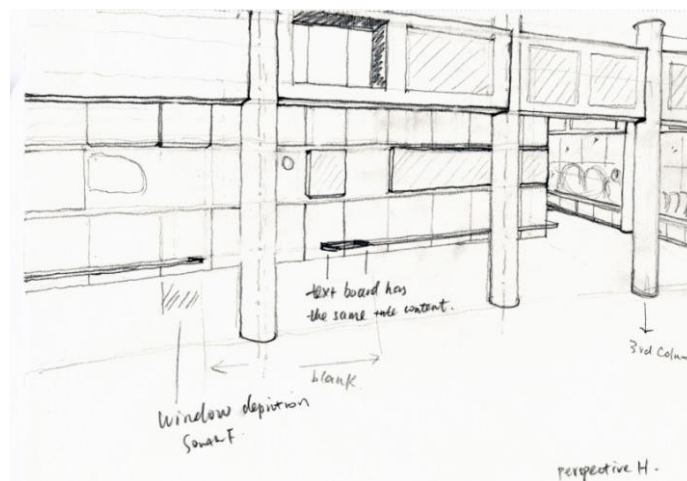


Figure 5.73 Sketch presents that there is a missing part of text board below the south Ionic Frieze (Sketched by researcher)

On the one hand, the Museum wants the Elgin Marbles to be returned in order to make

³⁶⁶ See 5.2.1 Circulation, p. 181.

the Ionic Frieze complete; on the other hand, the audiovisual interpretation could not contribute to revealing and communicating various meanings contained by the Ionic Frieze with the general public effectively. Regardless of whether parts of the Ionic Frieze are missing, or have been removed and replaced by a window, their stories need to be told by the audiovisual texts rather than being left blank. Only in this way can their significance in the NAM Parthenon Gallery be realised. The ‘complete’ Ionic Frieze is no longer located on the Parthenon Temple, so the moment it was displayed in the NAM Parthenon Gallery, its story needed to be told through the interpretations of the Gallery space. Otherwise, how could the Gallery space be considered as a valid context of the Ionic Frieze?

5.4.4 ‘Complete’ Ionic Frieze and Other Parthenon Sculptures

The replica of the original orientation of the Parthenon Temple in the NAM Parthenon Gallery clearly indicates the spatial levels of the Parthenon sculptures which are the pediments in the front, the metopes in the middle, and Ionic Frieze behind. The Museum professionals have since added some more fragments of sculptures from the Temple, although these are not yet shown in the Gallery plan. The best place to observe this relationship is from the east side platform in front of the east pediments.

It is commonly known that the Parthenon sculptures consist of three parts: the Ionic Frieze, the metopes and the pediments. As mentioned in Chapter Three, the sculptural decorations of the Parthenon Temple actually consist of five levels: the metopes on the lowest level; the Ionic Frieze just behind metopes which is higher; the level above which is the cornice carved as lion-heads; the level of the pediments; and the level of flora akroteria.³⁶⁷

The replica orientation of the Gallery space clearly indicates a vertical relationship between the Ionic Frieze and the two other main groups of the Parthenon sculptures.

³⁶⁷ See 3.2.1 The Parthenon Temple from a Historic View, p. 99.

Collecting the sculpture of the lion-head and the sculpture of the akroteria together, and displaying them around the pediments, it is still difficult to understand the relationship between the Ionic Frieze and these sculptures. Actually, the model display in the information centre is an excellent visual interpretation for informing visitors about the original levels of the sculptures. With every detailed architectural elements carved on it, it could be regarded as an extremely vivid and exciting vehicle for delivering these messages. However, with a lack of vital highlights, the detailed physical model of the Parthenon Temple has nothing to say.³⁶⁸ Moreover, the place where it is situated (in the atrium) has no clear indication of what messages it is closely related with. If the spatial relationship of the Parthenon sculptures is one of its potential indications, the location of the model display is several steps away from the Parthenon sculptures. With such a small text board containing the text 'Scale of Sculptures: 1:75', how could visitors realise the significance of this model display?

Therefore, the museum space should communicate with the general public both through both an architectural space and audiovisual texts. It should not only present itself to the general public as a complete and valid context in combining the building and the content together, but should also contribute to communicating with the general public in the manner of detailed audiovisual texts which tell various stories of the artefacts, of the building and of aspects which link the artefacts and the building together.

5.4.5 Ionic Frieze as the Original Single-sided Sequence and the Central Wall of the NAM Parthenon Gallery

Originally known as the continuous four-sided sequence, the depiction of the entire Ionic Frieze is the procession to the Parthenon Temple of the Panathenaia festival. The reason for dividing the procession into two routes is on the grounds of the content of the presentation of each side of the Frieze. Therefore, with different activities and

³⁶⁸ See 5.3.2 In the Atrium, p. 204.

figures, each side symbolises significant stages of the procession. The west Ionic Frieze is identified as the preparation for the procession. The north and the south faces are identified as celebrations by citizens. The east Ionic Frieze, the most distinguished part, depicts 12 gods of Olympia, and the dedication of the peplos as the central scene. According to Ms. Vouza (archaeologist of the NAM Parthenon Gallery), the Parthenon Temple is the only Greek Temple with 12 gods of Olympia depicted together, in order to symbolise the great power processed by Goddess Athena.

Regrettably, the spatial design of the NAM Parthenon Gallery has somehow fail to emphasise some aspects of symbolic ritual significance of the Ionic Frieze because it only replicates the structural aspects of the Parthenon Temple rather than translating significant meanings through the Gallery space. As carved on the exterior wall of the Parthenon cella, the north and the south sides of the Ionic Frieze was intended to be designed as integral part of the wall, while the east and the west sides of the Ionic Frieze was also intended to be designed as an integral part of the six columns where it stands.³⁶⁹ Therefore, the original cella is actually a four-sided spatial embodiment of the original complete Ionic Frieze. The north and the south sides of the Ionic Frieze are actually the north and the south walls of the cella; and the east and the west sides of the Ionic Frieze are also the east and the west ‘walls’ of the cella. The north and the south walls are closed architectural walls, while the east and the west walls are semi-opened architectural columns. The original condition of the Ionic Frieze is on the wall of the Parthenon Temple. Therefore, including in various levels of meanings contained by the Ionic Frieze, the new interpretation of the frieze needs to reveal the architectural significance of the Ionic Frieze in its original context of the Parthenon Temple.

Another point is that, while the Ionic Frieze was removed from the Parthenon Temple as single blocks, the closed architectural wall and the semi-opened architectural columns remained in the original location on the Parthenon Temple. It is certainly that

³⁶⁹ See 3.2.2 Medium of Spatial-storytelling, p. 106.

in the new Gallery space there is no need to recreate every aspect of the Ionic Frieze on its original location. However, as mentioned above, the original architectural significance of the frieze was once intended to be designed as an integral part of the Parthenon cella for the reason that it was directly carved into the wall. Moreover, as discussed in Chapter Three, the Ionic Frieze was not only a visual-storytelling but also a ritual product of the activity of weaving which represented the beauty of craftsmanship.³⁷⁰ Therefore, by employing contrasting materials, the design of the NAM Parthenon Gallery's central concrete core could not effectively reveal the original architectural significance of the frieze. The moment the Ionic Frieze was installed in a central concrete core of the NAM Parthenon Gallery, its original authenticity was lost.

During its 2,500 year history, the Ionic Frieze was endowed with more meanings since it was originally carved in the Parthenon Temple but finally was on display in two Parthenon Galleries. In their new homes, its major meanings are transformed from the ritual significance of the Panathenaia festival to the architectural significance of a medium of spatial-storytelling of the Parthenon Temple, and finally to the political significance of the Elgin issues. The Ionic Frieze is not a signifier of the Panathenaia festival alone. It is a unique metaphor which is signified ritually, architecturally, and politically.

Conclusion

To summarise, in addition to introducing the background information on the New Acropolis Museum and the Parthenon Gallery, this chapter has analysed the significance of the media of architectural space and audiovisual texts which contribute to communicate meanings of the 'complete' Ionic Frieze. In the next chapter, the different media applied to communicate meanings of Ionic Frieze in the two Parthenon Galleries will be further compared.

³⁷⁰ See 3.2.3 Weaving the Culture: Significance of Spatial-Storytelling, p. 114.

Chapter Six Comparison of the Two Parthenon Galleries

Introduction

This chapter contains three sections. The first section undertakes a comparison of the Parthenon Gallery spaces in both museums. The second section is the comparison of the medium of audiovisual texts which contribute to communication of meanings in the display of the Ionic Frieze. Based on the comparison of the media in both museums, the third section is an analysis of the medium of the Duveen Gallery, which could be regarded as the most valid context for the Ionic Frieze, and the one that contributes most to continuing the culture contained by the Ionic Frieze. The method applied in this chapter is observation and architectural analysis. Observation is the key method used to compare the media of the two Parthenon Galleries, while architectural analysis is the supplementary method which supports the observations by analysing the ideas.

6.1 Building and Content: The Parthenon Gallery as a Medium for the Ionic Frieze

6.1.1 Historical Background

Since its establishment in 1753, the British Museum has set a precedent for the public museums that emerged during the Enlightenment. During the 258 years of its existence, while some of the natural collections have been removed to the Natural History Museum in South Kensington, and the building has significantly expanded the Museum site itself. Home to a collection of artefacts which are regarded as significant symbols of various cultures from different times and places, the British Museum is a world-renowned institution.

Established on the foundations of the Old Acropolis Museum which was built in 1865, the New Acropolis Museum was constructed on a newly selected archaeological

excavation site. Regardless of whether it is the collections contained in the Old Acropolis Museum which were transferred into the new Museum or the artefacts being excavated from the archaeological site, the New Acropolis Museum is an archaeological museum of Athenian culture only.

The different historical backgrounds of the two sites and the museum buildings, have resulted in drawing different attitudes towards the design of the Parthenon Galleries in each museum. The Duveen Gallery was designed in a traditional style because of the Classical architectural background of the architect and the Classical architectural style of the existing Museum building. Unlike the Duveen Gallery, the NAM Parthenon Gallery in the New Acropolis Museum was designed in a contemporary style resulting from the modern and post-modern architecture background of the architect and the context of a completely new Museum building.

6.1.2 Circulation

Even though the historical backgrounds of the two Museums are very different, the Parthenon Galleries in both Museums are located at a terminus in the circulation route, in order to emphasise their significance. In the British Museum, the Duveen Gallery is located at the termination of a journey travelling horizontally. In the New Acropolis Museum, the NAM Parthenon Gallery is the terminated area of a journey travelling vertically. Moreover, the journey travelling to the Duveen Gallery consists of mini journeys, sequentially, through Ancient Egypt, the Middle East, and Ancient Greece and Rome. Travelling on foot, the Duveen Gallery is the biggest treasure hidden at the end for visitors to see, and to wander around. The coherent spatial arrangement of the preceding galleries creates a series of experience and expectation of the Duveen Gallery.

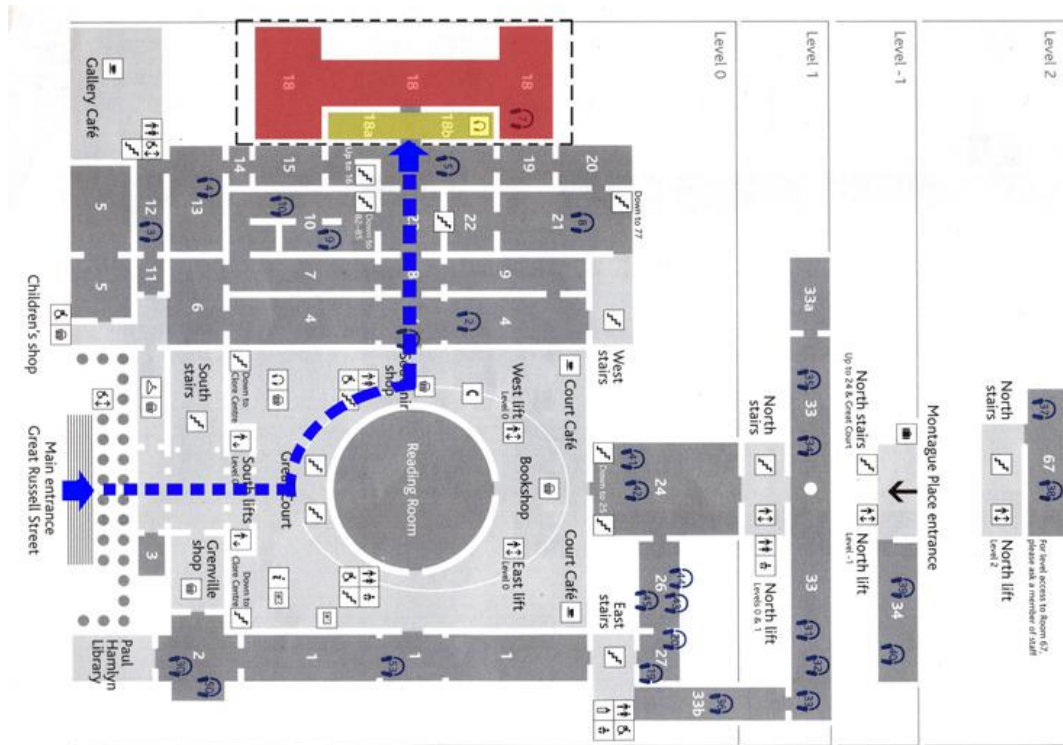


Figure 6.1 Circulation of the Duveen Gallery in the British Museum - blue: Circulation Route; red: Duveen Gallery; yellow: side galleries. (Source: Anon. British Museum Map 2008, edited by researcher)

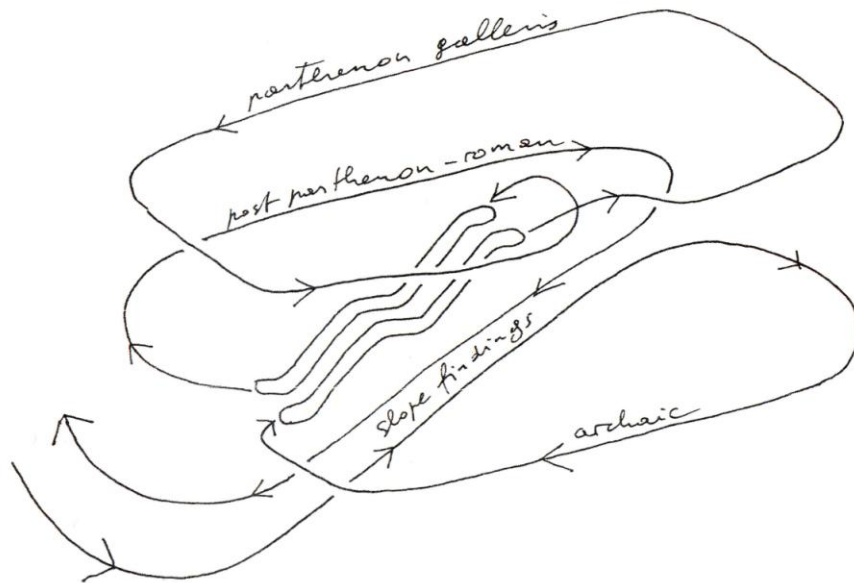


Figure 6.2 Circulation Diagram of the NAM Parthenon Gallery in the New Acropolis Museum (Source: Poligrafa, E. Bernard Tschumi: *Acropolis Museum*, Athens, 2010, p. 17.)

Compared with the Duveen Gallery, travelling to the NAM Parthenon Gallery is more leisurely. The journey starts on the Galleries of the Slopes on the ground floor up to the Archaic Gallery on the first floor and breaks on the mezzanine floor which mainly

functions as restaurant and Museum shop, and then continues from the mezzanine floor to the NAM Parthenon Gallery on the top floor. Two groups of escalators are the key transportation elements connecting the first floor and the third floor where the NAM Parthenon Gallery is situated.

Ascending the height of two floors by escalators rather than on foot, the bodily movement is replaced by a mechanical motion which significantly reduces visitors' cognitive experience of the space by staying or by moving freely. Besides, there is no artefact displayed along the journey of going up from the first floor to the third floor. With such a long pause between viewing the galleries sequentially, the connection between the NAM Parthenon Gallery on the third floor and other galleries on the first floor and below are unintentionally diminished. Even though the architect clearly indicates his intention of imitating the original route of visiting the sacred Acropolis and the Parthenon Temple, the actual route of visiting the NAM Parthenon Gallery is only the structural replica of the original route rather than the accepted meanings. It would be difficult to imagine ancient Athenians taking an escalator up the Acropolis. Even today, the Parthenon Temple can only be approached on foot. It is this bodily movement of climbing the Acropolis that allows people to experience and understand an important part of the ritual significance of the Acropolis and the Parthenon Temple. Hence the commercial areas occupying important locations such as the connecting level of the galleries disrupt the visitor's encounter with the New Acropolis Museum. According to Tschumi, the circulation could also be regarded as 'the reading of ascending through layers of history that is just as valid';³⁷¹ however, with such a temporal gap between cultures symbolised by collections on the first floor and the collections of the Parthenon sculptures on the third floor, the journey through history is broken.

Compared with the NAM Parthenon Gallery, even though there is no indication of circulation on the museum maps for visiting the Duveen Gallery, the experience of

³⁷¹ Poligrafa. *Bernard Tschumi: Acropolis Museum*, p. 16.

approaching the Duveen Gallery through the successive galleries of the west wing on the British Museum ground floor could be metaphorically constructed as the reading of layers of history comprised of various cultures, in a horizontal sequence. The experience is not the original one of encountering the Parthenon sculptures situated on the sacred Acropolis, but is one of reinterpreting the meanings of the Parthenon sculptures as the culmination of a journey through Ancient Greece and Rome, integrated with other cultures in the British Museum.

6.1.3 Space Layout

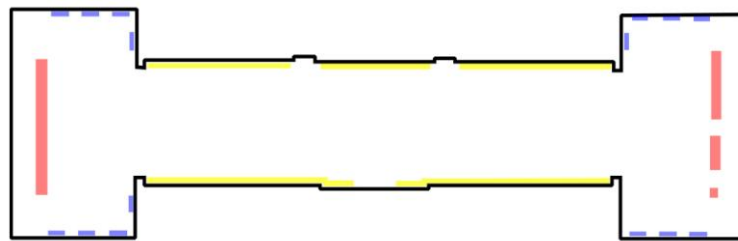


Figure 6.3 Space Layout of the Duveen Gallery (shown in the same scale as Figure 6.4) - yellow: Ionic Frieze; red: pediments; blue: metopes.

(Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 91, edited by researcher)

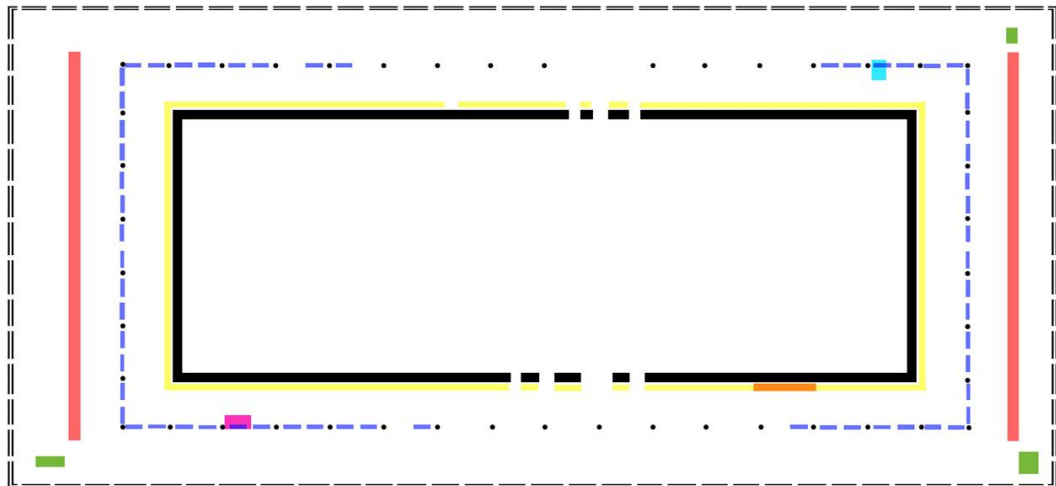


Figure 6.4 Space Layout of the NAM Parthenon Gallery (shown in the same scale as Figure 6.3)- dotted black line: glass facade; solid black line: central concrete core; black dot: columns; red: Pediments; blue: Metopes; yellow: mixture of original Ionic Frieze and replicas; orange: missing Ionic Frieze; cyan: fragment of Ionic Frieze on loan from the Vatican Museum; purple: original back of Ionic Frieze from which the surface was removed by Elgin; green: other fragments of the Parthenon sculptures, e.g. lion head and Akroterion. (Source:

Poligrafa, E. *Bernard Tschumi: Acropolis Museum, Athens*, 2010, p. 26, edited by researcher)

The Parthenon Galleries adopt different forms as their main Gallery spaces in both Museums. The form of the Duveen Gallery is an I-shaped space composed of three rectangles (figure 6.3). The form of the NAM Parthenon Gallery is a rectangular space composed of one rectangular space and one looped space (figure 6.4).

With every piece of the Parthenon sculptures reverse-positioned and displayed in the rectangular spaces, the Duveen Gallery is an introverted, closed space. Composed of three rectangular spaces, the architectural design of the space is concise but filled with inspiration. Each rectangular space is suitable for standing, staying and gathering, especially the central rectangular space where the Ionic Frieze is displayed. Visitors could either sit on the benches or stand by the railings to view it. Originally, the Ionic Frieze is positioned behind the metopes, and the metopes and the pediments are both positioned facing the exterior. Thus, there is no visual connection between each group of sculptures according to their original locations in the Parthenon Temple. Displayed in the Duveen Gallery, not only that their original locations are reversed, but also each group of sculptures is displayed facing each other. Therefore, there is a visual connection between the sculptures which is established in the Gallery space. Moreover, as discussed in Chapter four, the sequence of visiting the Duveen Gallery is visually organised by the spatial positions of the Parthenon sculptures, which starts from the Ionic Frieze - in the central Gallery, to the pediments - in the transeptal Galleries, and finally ends at the metopes - on short side walls surrounding the pediments. The Gallery space flows and the horizon unfolds before it. The dimensional and floor differences between the transeptal Galleries on both sides and the central Gallery silently express the extraordinariness of the latter. No matter where they are viewed from, the artefacts always attract the attention. The architectural space offers artefacts a stage on which to speak, to perform, and to communicate, meanwhile, it offers visitors a newly constructed physical space to view, to walk around, and to contemplate. The three rectangular spaces composed as an entity which significantly generates embodied experience of both the Parthenon sculptures and the architectural space.

Compared with the Duveen Gallery, the NAM Parthenon Gallery is an extroverted space filled with excitement. The glass façade completely exposes the Gallery to the outside world, except for the rectangular space which functions as a combination of circulation area, the atrium and the information centre. The looped space is again divided by the displays of metopes and pediments into tunnel-like spaces. These tunnel-like spaces are negative, normally used for passing through rather than for staying and gathering. It is undoubted that the dimensions of the central concrete core where the Ionic Frieze is displayed and the columns where the metopes are displayed successfully replicate the original orientation of the Parthenon sculptures, while the north side of the Gallery strongly indicates and establishes the direct visual link between the NAM Parthenon Gallery and the Parthenon Temple on the Acropolis. If the glass façade on the north side of the Gallery is the only side which could connect the Gallery and the Parthenon Temple, then what is the reason for installing transparent glass in the other three sides? With all four sides enclosed by glass, the Gallery space is less orientated and looser. The exterior view of modern Athens dominates the significance of the Parthenon sculptures, which results in the significant sculptures especially the Ionic Frieze being ignored by the visitors.

It is essential to reflect the important aspects of the original space layout on the Parthenon Temple; however, it is also important to identify the original space layout in relation to the Parthenon sculptures. As discussed in Chapter Three, the colonnaded space embracing the Ionic Frieze on the Parthenon Temple is coherent; it flows around the four sides of the Parthenon cella.³⁷² The Ionic Frieze can be held up by the cohesive space formed by the columns. Besides, the front side and the back side of the cella were both constructed as columned spaces in order to be identified as the starting and the ending points of the Panathenaia procession which was depicted on the Ionic Frieze. With all these important aspects of ‘space’ missing from the layout, the tunnel space in the NAM Parthenon Gallery embracing the Ionic Frieze is only a structural replication of the original orientation. It could offer visitors some aspect of the original

³⁷² See 3.2.2 Medium of Spatial-storytelling, p. 111.

experience of visiting the Parthenon Temple; however, it could not help the Ionic Frieze to convey its stories to the visitors, which could be regarded as the essence of the New Acropolis Museum in communicating meanings.

Superficially, the space layout of the NAM Parthenon Gallery attempts to reveal the experience of the Parthenon Temple. For instance, the Gallery replicates the original orientation of the Parthenon Temple not only in that it offers opportunities for the general public to understand the spatial locations of three groups of sculptures - the pediments, the metopes and the Ionic Frieze - but also because it tries to recreate the original circular route taken when visiting the Parthenon Temple and sculptures. However, such replications only offer structural explanation rather than interpretation, which results in the loss of the task and nature of the action of interpretation. With reference to Ricoeur, the reason he introduced the model of text in interpretation is because the text-interpretation could interpret the meanings of written documents rather than structure. In other words, the significance of interpretation of written documents lies in how it encourages interpreting the meanings, which is not only the present meanings of the written documents, but the meanings which can be revealed from different perspectives; from different horizons. The task and nature of the action of interpretation should not be considered as a structural explanation, but as a meaningful action of disclosing a world, 'as symbolic dimensions of our being-in-the-world'.³⁷³

Therefore, the interpretation of the Parthenon Temple and the Ionic Frieze should also follow such principles of interpretation, and the underlying stories of Parthenon Temple and the Ionic Frieze should also be interpreted. Arguably, as the height of the Ionic Frieze is reduced, it is necessary to adjust the space layout such as the thickness of the columns and the replacement of the columns standing on the short sides of the NAM Parthenon Gallery. Undoubtedly, these could be regarded as the reasonable solutions. The experience of visiting the NAM Parthenon Gallery is nevertheless

³⁷³ Thompson, ed. *Paul. Ricoeur: Hermeneutics and the Human Sciences*, p. 112.

merely identified as experiencing the original orientation of the Parthenon Temple. The Gallery should offer the sculptures an appropriate background for them to tell their stories. Manifold significant aspects of space layout in presenting the Ionic Frieze on the Parthenon Temple are compressed into a univocal sign; thus, the Gallery space more or less deprives it of its relationship with the Ionic Frieze. Hence, the NAM Parthenon Gallery is not as effectively designed as it could have been to help the Ionic Frieze communicate its various levels of historical significance and cultural meanings to the general public.

6.1.4 Lighting and Material

The lighting schemes in both Parthenon Galleries combine both natural light and artificial light. In the Duveen Gallery, the roof opening is the only area where the natural light comes in (figure 6.5). With small installations of artificial bulbs along the four sides of the roof opening, the light condition in the Gallery is steady. Besides, the roof opening analogically indicates the original condition of the Ionic Frieze on the Parthenon Temple with mediated gentle sunlight coming through the marble roof above it. Because of the dimensional difference between the central Gallery and the transeptal Galleries, the central Gallery in which the Ionic Frieze is displayed is always brighter than the transeptal Galleries. Therefore, the lighting significance of the Ionic Frieze is realised through the lighting in the Duveen Gallery in regards to its original condition on the Parthenon Temple and its present condition in the Gallery.

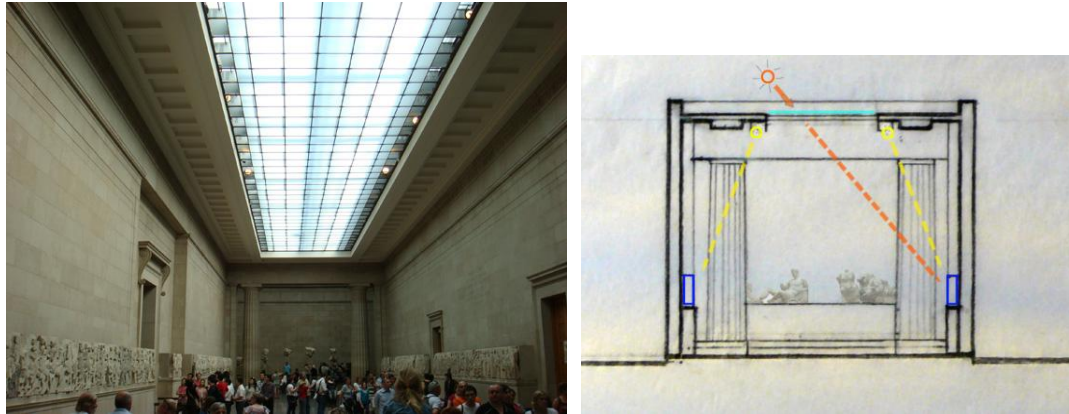


Figure 6.5 Lighting in the Duveen Gallery: Photo and Section - orange: sunlight; yellow: artificial light; blue: Ionic Frieze; cyan: glass roof. (Source: sketch and edited by researcher)

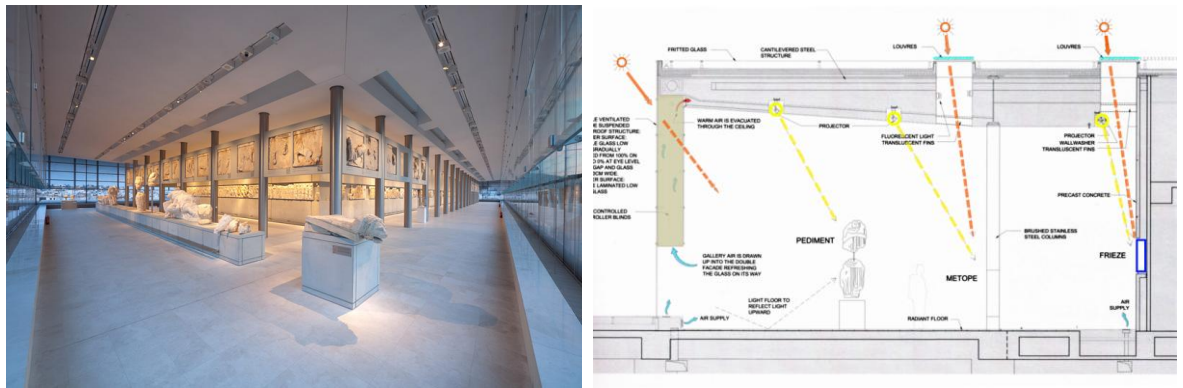


Figure 6.6 Lighting in the NAM Parthenon Gallery: Photo and Section - brown: double glass façade; orange: sunlight; yellow: artificial light; blue: Ionic Frieze; cyan: louver. (Source: Tschumi, B. *New Acropolis Museum*, 2009, p. 81, edited by researcher)

Compared with the clear and simple lighting scheme in the Duveen Gallery, the lighting scheme in the NAM Parthenon Gallery is complex (figure 6.6). Except for the prominent glass façade, there are loops of skylights above both the Ionic Frieze and the metopes. Besides, there are lines of artificial lights installed on the roof projected on three groups of sculptures. On one hand, the installation of glass façade on four sides of the Gallery results in superfluous exterior views that expand the distance between the visitors and the artefacts especially the Ionic Frieze. On the other hand, the glass façade is so prominent that the skylight above the Ionic Frieze is in danger of being ignored. The lighting condition during the daytime is apparently unequal which results in a disordered and chaotic atmosphere in the NAM Parthenon Gallery.

Accidentally, the materials used to construct the Galleries coincide with the lighting scheme. The selections of materials in the Duveen Gallery are limited and simple and integrate with the atmosphere produced by the lighting - steady, gentle and elegant. The material of the wall effectively reveals the original architectural significance of the Ionic Frieze which was intended to be designed as an integral part of the wall on its original context of the Parthenon cella. Constructed with contemporary materials, the atmosphere in the NAM Parthenon Gallery is unstable. On one hand, the soft and warm marble floor and the sufficient sunlight produce a sense of excitement and warmth. On the other hand, the transparent glass façade and the concrete produce the sense of indifference and sobriety. The atmosphere is constantly in conflict. Thus how could such conflicting experiences within the NAM Parthenon Gallery space be regarded as the experience of visiting the original Parthenon Temple, originally the sacred place for commemorating the Panathenaia festival and the Goddess Athena? Therefore, regardless of the lighting scheme or the materials selection, the Duveen Gallery reliably inherits and interprets the nature of the Ionic Frieze in the Parthenon Temple. The next section presents an analysis of the comparison between the audiovisual interpretations in the Parthenon Galleries.

6.2 Translating Significant Meanings of the Ionic Frieze: Effectiveness of Audiovisual Texts

6.2.1 Individual Audiovisual Text Translates Meanings

In the Duveen Gallery in the British Museum, the verbal interpretation, the visual interpretation and the text interpretation are all being applied to tell the stories of the Ionic Frieze. Standing in the central Gallery viewing the Ionic Frieze, the audio guide from which the verbal interpretation is presented contributes greatly to the spatial experience of the Ionic Frieze. Designed as small and delicate, the audio guide is easy to be carried around. The stories - the meanings of the Panathenaia festival, the procession presented particularly in the west and north faces of the Ionic Frieze, characters and activities of the human and animal figures, and the sacred scene of the

dedication of the peplos in the east Ionic Frieze - can all be told simultaneously through the headphones and the screen on the audio guide. Visitors not only listen but also watch; thus they are more immersed in the process of understanding the Ionic Frieze cognitively.

Compared with the portable character of the verbal interpretation, the visual interpretation and the text interpretation of Ionic Frieze are both fixed in the information Galleries of the Duveen Gallery. In the south information Gallery, the visual interpretation is presented as casts of the complete west Ionic Frieze and a silent film presentation. In the north information Gallery, the text interpretation consists of various text boards which are normally divided into an upper text section and a lower image section. If the film presentation and the text boards offer visitors a sense of watching and reading, then the casts of the complete west Ionic Frieze offer visitors a sense of touching which further encourages understanding of the process of making the artefacts. As discussed in Chapter Four, there are large capitalised texts engraved on the upper section of the wall directly facing the Gallery entrance which clearly indicate the theme of the Gallery,³⁷⁴

THESE GALLERIES
DESIGNED TO CONTAIN
THE PARTHENON SCULPTURES
WERE GIVEN BY
LORD DUVEEN OF MILLBANK
MCMXXXIX

Therefore, the text can also be regarded as the significance of the material presentation of the audiovisual interpretations.

Even without the assistance of the audio guide, with a clear indication of the circulation presented on the New Acropolis Museum map, the location of the NAM Parthenon Gallery is easily approached and understood. However, because of the low

³⁷⁴ See 4.2.2 Space Layout, p. 135.

effectiveness of the NAM Parthenon Gallery space in conveying significant meanings of the Parthenon sculptures, on-site archaeologists need to answer very basic questions repeatedly asked by the visitors. Compared with the audio guide, the archaeologist transforms the dead messages into a living conversation in terms of questions and answers which could help visitors engaged more with the artefacts. With every piece of replica displayed in the main Gallery, the visual interpretation in the NAM Parthenon Gallery consists of a model display and video presentation. Located as it is within a glass box, the model of the Parthenon Temple is for looking at rather than communicate. Compared with the silent film presentation in the south information Gallery in the Duveen Gallery, the video presentation installed in the information centre in the NAM Parthenon Gallery clearly presents the stories of the Parthenon Temple and the sculptures in both visually and in audio.

Therefore, the designs of audiovisual interpretation as various material representations contribute to produce different effects; for instance, the fixed interpretation is less convenient than the portable interpretation for viewing the Ionic Frieze in the central Duveen Gallery, text engraved on the wall is much more prominent than any other text interpretation presented either on the board or on the paper to emphasise the theme of the Duveen Gallery. Hence, on the grounds of delivering meanings of the artefacts and communicating meanings with the general public, the museum design group should develop as many material presentations of the audiovisual interpretation as possible to integrate either with various meanings contained by the artefacts or with the positive attitude of communication.

Except for the material presentation of the audiovisual interpretation, the content of each audiovisual interpretation also contributes to communicating meanings contained by the Ionic Frieze. In regard to audio interpretation in the Duveen Gallery, the audio guide contains the sounds of horses galloping and whinnying, while describing the Panathenaia procession, which exert a big influence in understanding the stories. In regard to the visual interpretation, film presentations in both Galleries employed

coloured highlights in the process of explaining certain significant aspects of the artefacts, which could be considered as highly useful. The film presentation in the Duveen Gallery is silent which contributes to communicate meanings at a visual level; however, the film presentation in the NAM Parthenon Gallery contributes to communicate meanings at both visual and audio levels.

The above text explains how individual audiovisual interpretation conveys meanings of artefacts in an independent way. The following section explains how individual audiovisual interpretation contributes to translate meanings in a collective manner.

6.2.2 Collective Audiovisual Texts Translate Meanings

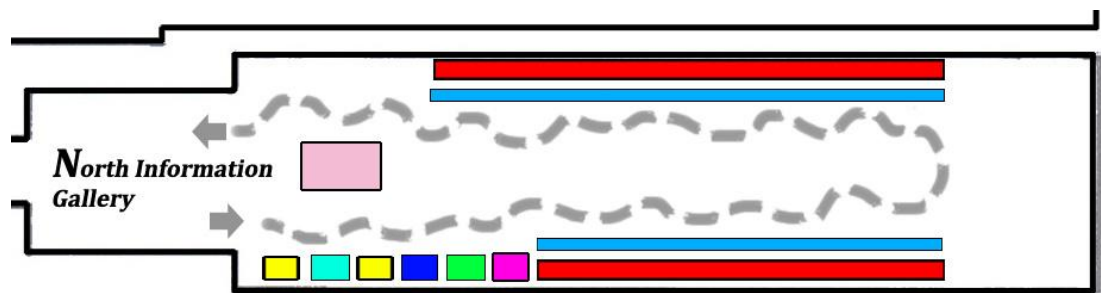


Figure 6.7 Linear Sequence of Audiovisual Interpretation in the North Information Gallery Duveen Gallery - Cyan: Text Board of 'THE PANATHENAIA WAY'; Dark Blue: Text Board of 'PLAN OF THE PARTHENON'; Purple: Text Board of 'THE PARTHENON SCULPTURES'; Green: Text Board of 'WEST FRIEZE OF THE PARTHENON'; Red: Casts of Complete West 'Ionic Frieze'; Blue: small text board below casts; Pink: Touch Model of the Parthenon Temple (Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 91, edited by researcher)

In both the Duveen Gallery and the NAM Parthenon Gallery, significant meanings of the Ionic Frieze, such as ritual meaning of the Panathenaia festival, architectural meaning of spatial-storytelling on the Parthenon Temple, and political meaning of the Elgin issues, are not only conveyed by individual audiovisual interpretation but also by collective audiovisual texts. Under such circumstances, the spatial arrangement of individual audiovisual interpretation appears crucial.

In the north information Gallery of the Duveen Gallery, the text board of 'THE

PANATHENAIA WAY’, the text board of ‘THE WEST FRIEZE OF THE PARTHENON’, plaster casts of the complete west Ionic Frieze and the small text boards collectively contribute to translate meanings of the complete west Ionic Frieze. Their display positions are well arranged into a *linear sequence*. As long as visitors read the text boards, they will be directed from one text board to the next, from the next text board to the casts, and from the casts to the small text boards. Hence, their understanding coincides with the sequence of individual audiovisual interpretations from the general level to the detailed level. Moreover, the continuous small text boards also coincide with the sequence of each slab of the casts of the west Ionic Frieze.

If the linear sequence of collective audiovisual texts helps to translate meanings from the general level to the detailed level, then collective audiovisual texts following a circular sequence also contribute to translate meanings.

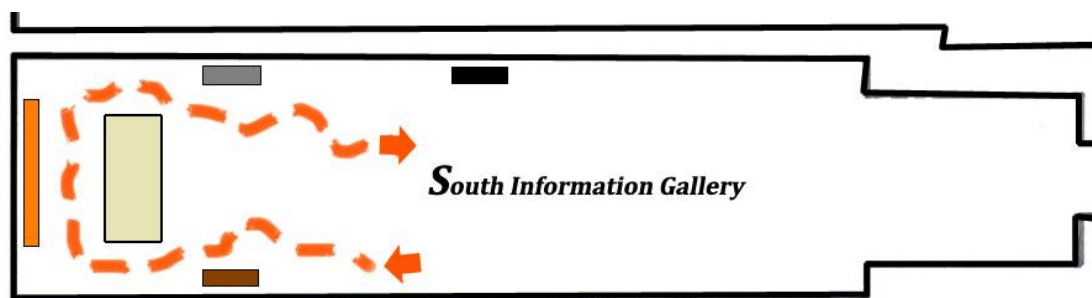


Figure 6.8 Horizontal Circular Sequence in the South Information Duveen Gallery - Orange: Silent Film Presentation; Brown: Text Board of Film Presentation; Grey: Image Board of first Film Presentation; Black: Text Board of Ionic Frieze in relation to Other Significant Artefacts in the British Museum. (Source: Cook, B.F. *The Elgin Marbles*, 1984, p. 91, edited by researcher)

In the south information Gallery of the Duveen Gallery, the silent film presentation, the text board relating to film presentation, and the image board of film presentation are displayed in a *horizontal circular sequence*. Visitors can either choose to watch the film presentation first or to read the text board or image board first. According to the researcher’s observation, visitors usually choose to watch the film presentation first and then read the text and image boards. Clearly, even though presented in a circular

sequence, visual interpretation is more attractive to the general public in communicating meanings of the Ionic Frieze.

Except for the horizontal sequence of the collective audiovisual interpretations, the *vertical circular sequence* of collective audiovisual interpretations therefore contributes more to translating various meanings from the spatial level to the text level.

In the main Gallery of the NAM Parthenon Gallery, the replica of the east Ionic Frieze, the text board below the east Ionic Frieze, and the special text board of the Athena's identity on the central east Ionic Frieze comprise the collective audiovisual texts in a vertical circular sequence. As analysed in the Chapter Five, even though the current condition of the text board below the Ionic Frieze in the NAM Parthenon Gallery is not satisfactory in communicating meanings, there is the potential to present images and develop highlights within the text in order to tell the stories depicted on the marbles.³⁷⁵ Therefore, displayed in the NAM Parthenon Gallery, the significant meanings of the central east Ionic Frieze is translated from the marble presentation to the highlighted image presented either on the text board below each slab or on the special text board, and then to the written text. The vertical circular sequence helps to translate the meanings of the central east Ionic Frieze from the spatial level to the visual level and finally to the text level.

³⁷⁵ See 5.3.4 In the Main Gallery, pp. 208-211.

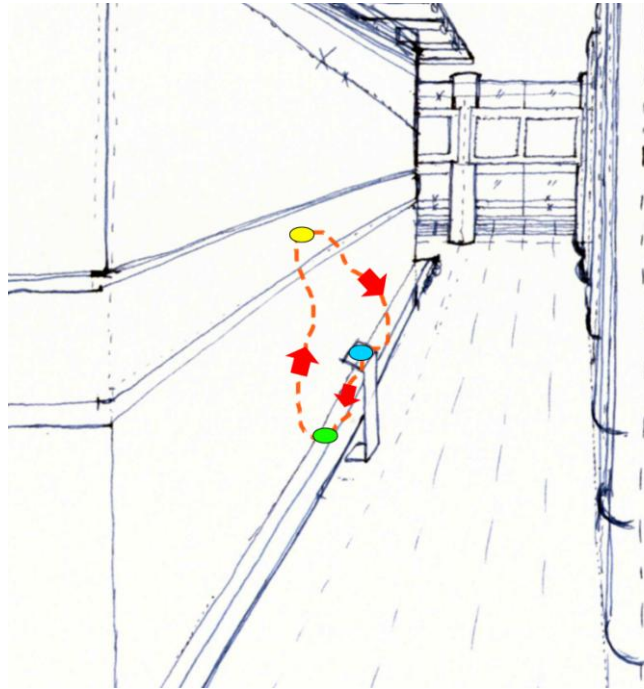


Figure 6.9 Vertical Circular Sequence in the NAM Parthenon Gallery - Cyan: special text board; Green: general text board; Yellow: marble presentation. (Sketched and edited by researcher)

Regardless of linear sequence and horizontal circular sequence employed in the Duveen Gallery or the vertical circular sequence in the NAM Parthenon Gallery, collective audiovisual interpretations help to convey meanings of Ionic Frieze prominently and comprehensively.

In regard to collective audiovisual interpretation in a linear sequence in the Duveen Gallery, the content of each individual text overlap less, because the meanings of the Ionic Frieze are translated from the general level to the detailed level in an ordered sequence. However, in regard to the circular sequence, especially the vertical horizontal sequence in the NAM Parthenon Gallery, the content of each individual interpretation overlap more for the reason that meanings of the Ionic Frieze are not only translated from the general level to the detailed level but also from the spatial level to the text level. Moreover, the actual translations are not restricted within the sequence of each individual interpretation, which means the meanings could be communicated from the detailed level to the general level or from the text level to the

spatial level. The process of how the meanings are translated relies on the action of visitors. Thus, collective audiovisual texts in both Parthenon Galleries offer the general public a platform from which to communicate with the artefacts particularly the Ionic Frieze through a multitude of unfolding perspectives rather than through authorised direction.

6.3 Content and Context: Embodied Experience of Medium in Continuing Culture

6.3.1 Spatial-storytelling: Significance of Medium

Based on the former two sections, it can be concluded that the Duveen Gallery could be regarded as a more valid background representing the Ionic Frieze. Even though its space layout almost deconstructs the understanding of the original positions of the Ionic Frieze, the metopes and the pediments, it effectively recreates some aspects of the original space of the Parthenon Temple, such as the atmosphere of a sacred place commemorating the Goddess Athena and the remarkable spatial representation of the ritual Panathenaia. The material - particularly the wall material, the lighting, and appearances of the Doric columns, the door and the architrave - together metaphorically contributes to recreate some aspects of the original condition of the Ionic Frieze on the Parthenon Temple. Therefore, the architectural significance of the Ionic Frieze as a part of the Parthenon cella is achieved through the central Duveen Gallery space.

Displayed in the British Museum about 200 years, the Ionic Frieze and other Parthenon sculptures are not only part of the Elgin Marbles or the archaeological remnants of the Parthenon Temple, but also a part of the British Museum. Visited generation after generation, the sculptures have gradually become a part of world history and human culture. The context formed by the Duveen Gallery space and the Parthenon sculptures, particularly the Ionic Frieze, exists as an entire tangible medium of both the Museum site and the urban environment.

Even though the Ionic Frieze could be viewed by the general public in such an architectural space with embodied experience, this is just the beginning of the ‘storytelling’ process. It is the audiovisual texts that help the space to speak more precisely of its original significance and experience, and help the Ionic Frieze and other Parthenon sculptures to tell their stories. The audiovisual texts not only bridge the distance between the Duveen Gallery and the Ionic Frieze, but also bridge the distance between the Ionic Frieze and the Parthenon Temple, the Ionic Frieze and the origin of the artistic figure presentation, and the Ionic Frieze and the Elgin Marbles. Therefore, distances between events that happened in different times and places are mediated within the space with the help of the audiovisual texts. The space and the audiovisual texts collectively unfold a different world in front of the visitors, a world where,

as universal horizon, as coherent universe of existing objects, we, each ‘I-the-man’ and all of us together, belong to the world as living with one another in the world; and the world is our world, valid for our consciousness as existing precisely through this ‘living together’.³⁷⁶

6.3.2 The Panathenaia and Memory

It is acknowledged that the representation of the Ionic Frieze on the Parthenon Temple is the depiction of the Panathenaia festival. It is also acknowledged that the Panathenaia festival is a significant ritual event of ancient Greece, which originally proceeded from suburban Athens to the Acropolis site, with the specific theme of dedicating the peplos to the Goddess Athena. Even though some scholars argue over the extent to which does the representation of the Ionic Frieze actually depicts the originality of the Panathenaia procession, it is undoubted that the representation of the Ionic Frieze may be regarded as a successful interpretation of the celebration of an ancient Greek festival.³⁷⁷

³⁷⁶ Wild, ed. *Edmund. Husserl: The Crisis of the European Sciences*, p. 108.

³⁷⁷ See 3.2.2 Medium of Spatial-storytelling, p. 107.

Presented as the visual-storytelling and spatial-storytelling on the Parthenon Temple, the Panathenaia had been tangibly recorded by the Ionic Frieze, which has been regarded as an innovative means of interpretation. Ancient Greeks not only dedicate the peplos to their patron of the city - Goddess Athena - but also present the whole Parthenon Temple to the Goddess, to express their gratitude, and to honour her, from generation by generation. Therefore, to interpret cultural and architectural significance of Parthenon Temple and the Ionic Frieze, one needs to interpret aspects relating to the original event - the Panathenaia festival. According to Ms. Vouza (archaeologist in the New Acropolis Museum), many visitors, especially Greeks, know that the Ionic Frieze is the depiction of the Panathenaia festival. However, the Panathenaia festival is not a single event, but rather a manifold metaphor for a much greater experience.

In the New Acropolis Museum, although some visitors know the term 'Panathenaia festival'; however they often tend to miss the opportunities to see different interpretations of the Panathenaia festival, such as the interpretation of its elements contained by each side of the Ionic Frieze, or the interpretation of actions of figures depicted on different slabs of the Ionic Frieze and their relationships, etc. Without communicating or learning the meanings of the Panathenaia festival through the Ionic Frieze from the general level to detailed level, the Panathenaia festival will only be understood and communicated as a denotable sign. As discussed in Chapter One, according to Barthes, the denotable system is the system of metalanguage 'whose plane of content is itself constituted by a signifying system'.³⁷⁸ Therefore, the system of metalanguage stands for humans' development of the language rather than innovation of the meanings. In regard to the case of Ionic Frieze as spatial-storytelling of the Panathenaia festival on the Parthenon Temple, ancient Greeks had already created innovative interpretations of the festival - by making 115 marble blocks with different human and animal figures to represent the significance of the festival. However, in the NAM Parthenon Gallery, the low effectiveness of the interpretive material displayed alongside the Ionic Frieze merely suggests the original spatial

³⁷⁸ Barthes. *Elements of Semiology*, p. 90.

configuration of the Panathenaia festival - a festival of expression of gratitude to the Goddess Athena, the patroness of the city.³⁷⁹ Thus, the arrangement of meanings of the Panathenaia festival are not well communicated by different blocks of the Ionic Frieze in the NAM Parthenon Gallery. Artefacts are cultural metaphors as the products of human beings' communication with the outside world; in other words, humans pass on culture through their communications.

As originally displayed the cella of the Parthenon Temple by the Ionic Frieze, the 'story' of the Panathenaia has been again 'presented' in the Duveen Gallery. Even though the original sequence of the Ionic Frieze was changed into a two-sided sequence, it should be argued that the space of the Duveen Gallery more successfully reveals various perspectives of the meanings of the Parthenon Temple. The Ionic Frieze dominates the prominent area of the Gallery which significantly helps the Ionic Frieze to communicate with the general public. Through the media of architectural space and audiovisual texts, the Panathenaia festival can therefore be understood in terms of different perspectives. The range of meanings of the Ionic Frieze and the Panathenaia festival are suggested in the new context of the Duveen Gallery, architecturally, culturally, and politically.

Conclusion

In this chapter, the comparison of both Parthenon Galleries has been undertaken through the media of their Gallery spaces and audiovisual texts, which contribute to communicate meanings of the Ionic Frieze and the Panathenaia festival. Therefore, the discussions on the Duveen Gallery in the British Museum, the NAM Parthenon Gallery in the New Acropolis Museum, and the comparison between the two have collectively formed the practice part of this thesis.

Part three concludes the thesis. It draws specific and overall conclusions based on both the theory and practice discussed herein. The specific conclusion is drawn from the

³⁷⁹ See 3.2.2 Medium of Spatial-storytelling, p. 103.

practice, which contributes to the museum design of communicating the meanings of artefacts. This followed by general, overall conclusions derived from the research, and suggestions for further research.

Part Three *Conclusion*

Chapter Seven The Museum as Medium

Based on the finding from theory and practice in this thesis, conclusions can be drawn in relation to the research questions. The medium of spatial-storytelling consists of artefacts, architecture and audiovisual texts. Within the museum, artefacts are the fundamental medium of the museum architecture. And the medium of architecture contributes to communicating meanings contained by the artefacts in a spatial way. Even though artefact and architecture can altogether generate an embodied experience of the general public, neither of them can ‘speak’ for themselves. Thus, the medium of audiovisual texts contribute to letting the artefact and architecture ‘speak’ and to interpreting the meanings of both in a detailed level.

7.1 Artefact

Artefacts are the most significant and fundamental elements in the museum context. Regardless of whether artefacts contain functional meanings, metaphorical meanings, narrative meanings or material meanings, they are a precious tangible medium left by the past.³⁸⁰ Artefacts are metaphors reflecting human beings’ knowledge and perceptions of the surrounding world. They tangibly establish the inseparable connections between the past and the present. Without artefacts, the museum could not distinguish itself from other types of architecture. The medium of artefact can be divided into two categories; content and representation.

7.1.1 Content

Content of artefacts can be understood as the events that are contained by the artefacts. Each artefact has stories which are closely linked with human beings. For man-made artefacts, their events usually include who made them, who used them, and other

³⁸⁰ See 2.4 Medium - Meaningful Artefacts, pp. 57-72.

events that happened around them. For the natural artefacts, their events usually include who found it, and what the relationship is between the artefact and humans, or the artefact and other natural artefacts. It is necessary for the museum design group to excavate the underlying meanings of the artefacts through different events, as no two artefacts are exactly the same. Therefore, artefacts need to be effectively grouped and ranked owing to their significance from a low level to a high level. This is the fundamental step of the execution of spatial-storytelling. Without acknowledging the various levels of meanings that are contained within the artefacts, spatial-storytelling could not be conducted.

7.1.2 Representation

As discussed in Chapter Two, artefacts are three-dimensional bodies of physical materials.³⁸¹ Therefore, representations of artefacts are materialised bodies. Hence, representation of artefacts can be divided into *types of material, colour and texture of the material, dimensional character, and bodily sense*. Different selections of these aspects would more or less hint at underlying meanings of the events contained by the artefacts. In other words, these aspects of the artefacts are important clues to discern the nature and the lives of humans from the past.

Clearly, different artefacts are made of different types of materials. Even though some materials are extremely fragile and affected by weathering over time, such as silk, the majority of artefact materials (such as stone, glass and terracotta) have been able to tolerate the conditions they have been subjected to over time. Artefacts have a tremendous capacity to offer the present generation a glimpse of past human understanding of different types of materials in relation to the making of the artefacts.

Colour and texture of the material is the delicate aspect of materials. It directly links with the types of the materials mentioned above. To understand colour is to understand material type further. In many cases, different types of materials have different colours.

³⁸¹ 2.3.1 Texts and Artefacts, p. 53.

For instance, the colour of wood varies on hue and sensation; therefore, viewing artefacts made of light birch or dark walnut would generate different feelings, which the light birch may stand for fresh and young but walnut represents stable and mature. Another example could be drawn from artefacts made of the same material in different colours. The example is the original Ionic Frieze in the NAM Parthenon Gallery. The original Ionic Frieze is of a yellowish colour because of the natural weathering it has been subjected to for many years. In addition to the original Ionic Frieze in a yellowish colour, a few sections of the original Ionic Frieze are in original flawless white, the colour of Penteli marble which was used to construct the Parthenon Temple. The reason that there is a section on the frieze in its original white colour is because, during the transformation of the Parthenon Temple, these sections were buried under earth. Therefore, when the entire slab of the Ionic Frieze was excavated on the Acropolis, the section exposed to natural weathering had aged to a yellowish colour, while the buried section retained the original white colour of the marble.

Hence, the aspect of colour not only allows the discernment of events which are directly reflected by the original material condition of the artefacts, such as the events of making artefacts, but also generates the discernment of some unexpected events, which are also contained by artefacts.

Inasmuch as artefacts are bodies, they have three dimensions; height, width and length. In many cases, artefacts are irregular bodies; their dimensions can then be measured by other methods which are not restricted to the categories of height, width, and length. Bodies occupy the physical world; therefore, presented within the materials, artefacts produce bodily senses.

Bodily sense mainly refers to the sense of touch. Made of different materials, the sense of touching the artefacts can generate feelings and emotions. For example, artefacts such as cloths made of wool may generate a feeling of warmth; and artefacts such as scarves made of silk may generate a feeling of delicacy, softness and elegance.

Artefacts made of glass would be colder than the same artefacts made of terracotta. Certainly, bodily senses will be stimulated by the artefact in its entirety rather than by individual aspects of it. Individual aspects could be considered effective elements to carry out further interpretation of collective artefacts. For the single artefact, it could be researched through the basic categories of material, colour and texture, dimensional characters, and bodily sense. For collective artefacts, these categories could still be employed to compare artefacts of different significance. Therefore, past events could be penetrated deeper and deeper through observations on aspects of artefacts, which would help to shape the entire environment of the museums.

7.2 Architecture

If small artefacts are the tangible media connecting the past world and the contemporary world, artefact of architecture thus is the tangible medium not only connecting the past with the contemporary world, but also connecting the contemporary world with the future. The medium of architecture can also be divided into two categories; content and representation.

7.2.1 Content

‘Museums must communicate or die’.³⁸² Communication should always be considered to be the priority task of museum architecture. Certainly, meanings of communication can be arranged into different levels: communication of entertainment; communication of experience; and communication of self-directed learning.

Like the small artefacts, architecture is also a series of three-dimensional bodies composed of physical materials. Differing from the artefacts which are displayed in space, architecture is the materialised space of the displayed. What is more, it offers an embodied experience to the general public. It is arguable that in some museums, there are some displayed artefacts, which as archaeological temples, could also offer an

³⁸² Hooper-Greenhill. *Museum and Their Visitors*, p. 32.

embodied experience. To make it clear, the term ‘architecture’ applies to the later-constructed shelter of the artefacts.³⁸³ Therefore, if the displayed artefacts link the past and the present, how could architecture link not only the past and present, but also the future?

7.2.2 Representation

Architectural representation is materialised architectural space which is composed of *material, circulation, space layout* and *lighting*. Within these four aspects of the representation, material is the only tangible medium which can be tangibly viewed and touched. The intangible media of circulation, space layout and lighting cannot be viewed, but only sensed and experienced through movement. Even though the architecture is the brand new shelter of the artefacts, in order to establish the connection between the past and the present, the four aspects of representation need to be carried out around the artefacts.

In many traditional museums, the aspect of material has not coincided well with the materiality of artefacts. Collections of artefacts are usually displayed in a Classical building without mediation of material. Owing to the material aspects, the material of architecture should be considered relevant in varying degrees to the material of artefacts. Containing hundreds or thousands of artefacts within, it is certainly not possible for the museum design group to pay attention to the material aspect of every individual artefact. However, according to artefacts with prominent significance, such as the Ionic Frieze in the case study which was originally a part of the wall, the material of the museum architecture should reflect the material significance of the Ionic Frieze.

Not all museum artefacts have such material significance in relation to their original conditions, but when dealing with architectural fragments which have been removed from their original contexts, the relationships between their original settings need to be

³⁸³ usually brand new

considered in relation to their new contexts. The selection of the material of architecture needs to be driven by the discernments of the material aspect of artefacts. In order to reveal some aspects of the spatial experience of their original contexts, space configuration and material are two of the most important media to achieve the successful communication of cultural meanings. If artefacts are seen as the tangible media of the past culture, then the material of architecture could therefore be seen as the tangible medium which makes connections between the past and the present culture.

As discussed in the last section of Chapter Two, circulation indicates the movement of the general public.³⁸⁴ Regardless of the circulation *between* galleries or *within* a gallery, circulation also needs to be arranged around various aspects of significance of artefacts.

In regard to circulation between galleries, if galleries are arranged into themes with linear narrative, the circulation needs to be coherent. Here the linear narrative could be further divided into horizontal circulation and vertical circulation.

Horizontal circulation refers to circulation between galleries on the same level. Certainly, there could be a slight difference in height between galleries. Generally speaking, the themes of galleries as well as the gallery space need to be connected. In order to achieve coherence, there can never be too few nor too many galleries, although their locations need to be assembled coherently. Therefore, through the movement of the horizontal circulation, the general public would experience a journey through the cultures from different times and places with different themes. As discussed in Chapter Six, the Duveen Gallery is the terminated area of a journey travelling horizontally, which consists of mini journeys sequentially through Ancient Egypt, the Middle East, and Ancient Greece and Rome. Thus, the coherent spatial arrangement of the preceding galleries creates a series of experience and expectation

³⁸⁴ See 2.5.1 Intangible Medium - Space, pp. 73-74.

of the Duveen Gallery. Even though it is difficult for the general public to pay attention to the details of all the artefacts, the coherent horizontal circulation would help them to acquire a general impression of the collections and artefacts. Movement between galleries on exactly the same level is smooth. In the case of galleries on slightly different levels, however, the flow of movement may be connected by a few steps, or slopes.

In addition to horizontal circulation, vertical circulation is also applied in the circulation between galleries. Vertical circulation refers to circulation between galleries on different levels. Sometimes galleries on different levels likewise follow the linear narrative. Therefore, in order to achieve coherence between the galleries, automatic transportation needs to be carefully employed, for the reason that it would definitely reduce the physical movement of the general public from the direct and cognitive sense to the unconscious sense. As discussed in Chapter Six, located on the top floor of the New Acropolis Museum, the NAM Parthenon Gallery is approached vertically by two groups of escalators. The bodily movement is replaced by a mechanical motion which significantly reduces visitors' cognitive experience of the space by staying or by moving freely. Thus, in a general sense, selection of transportation elements should be more physical than automatic or technical. Here automatic or technical transportation elements refer to escalators and lifts. For example, ramps and steps could be regarded as the possible selections for physical transportation elements. Certainly, it is not absolute to employ physical transportation elements instead of automatic transportation. For the purpose of producing an explorative environment, the museum design group needs to give strong consideration to which transportation elements should dominate in the circulation. Besides, the space surrounding physical transportation elements could be combined with the collections of artefacts. Therefore, while the general public is using the transportation elements, they could still enjoy the journey of experiencing different cultures.

If circulation between galleries shapes the first and general impression of the

collections, circulation *within* the gallery similarly shapes the detailed impression of both individual artefact and collection. Circulation within a gallery refers to movement of the general public in the gallery. The movement is actually the test of how the general public undertakes its visiting activities in the gallery.

As discussed in Chapter Two, a linear narrative could be regarded as one method of arranging artefacts being applied in the gallery.³⁸⁵ Therefore, the circulation produced by such a linear narrative is clear and guided. In many cases, the general public could follow the circulation of linear narrative and complete their visit to the gallery. On one hand, the circulation of the linear narrative effectively and intentionally leads the general public to interact with the artefact chronologically. On the other hand, the circulation of the linear narrative represents a strong and authoritative attitude among the museum design group, which may make the viewing experience of the collection less interesting. The task of communication of self-learning might be difficult to be achieved because of the authoritative attitude, although this is not to disparage the significance of the linear arrangements of the collection. Realistically, in order to inspire self-directed learning, circulation within galleries could be more flexible and diverse.

Because linear narrative has the advantage of achieving a clear direction of circulation, circulation within the gallery could be arranged as a combination of this linear narrative and other kinds of circulations. Therefore, while the general public walks within the gallery, the authority contained within this combination of circulations would not be obvious and strong; rather it would be experienced as suggestive and explorative.

Space layout and circulation are both intangible media. If the circulation shapes the general public's experience by movement, the general public would gain immediate experience by the space layout of the architecture. As discussed in Chapter Two, the

³⁸⁵ *ibid.*, pp. 73-74.

medium of space layout generally refers to the space layout of the artefacts within the galleries.³⁸⁶ There are two aspects of space layout which contribute to facilitate the artefacts; form and dimension.

Based on the understanding of the artefacts, the selection of the forms should be considered in terms of how appropriate they are for the background of the artefacts. It is undeniable that different architectural forms would generate different atmospheres. However, the architectural space should not dominate the artefacts. As discussed in Chapter Four, the original design proposals of the Duveen Gallery were too dominant which not only diminished the significance of the sculptures but also made the rest of the British Museum be regarded as a dog house.³⁸⁷ Also, as discussed in Chapter Six, the NAM Parthenon Gallery adopts tunnel-like space which negatively generates the experience of passing through rather than gathering in and lingering. Hence, the form of space should be chosen appropriately, in regard to the design of the NAM Parthenon Gallery, tunnel-like space should not be regarded as an appropriate form for the reason that it expands the distances between the sculptures and the visitors; however, it would be regarded as an appropriate form in other cases. Generally speaking, the selection of the form is decided by the museum design group. Therefore, before each form of the space is selected, the possible behaviour of the general public which would be generated by the space needs to be predicted.

The aspect of dimension is actually the further application of form. The same form with different spatial dimensions would produce different spatial experience. Regardless of form or dimension of the space, they both need to contribute to the communication of meanings contained by the artefacts rather than of the architecture itself. Despite the fact that space layout is addressed here as a separate category, in many cases, space layout and circulation overlap, particularly the circulation within the gallery. Therefore, during the process of designing the space layout and form,

³⁸⁶ See 2.5.1 Intangible Medium - Space, pp. 74-76.

³⁸⁷ See 4.1.2 The Duveen Gallery, p. 129.

speculation on the general public's movements would probably help to evaluate the selection of form and arrangement of space layout. Of course this evaluation is only an initial one, not the real evaluation that can be made after the construction of the space, but the predictable speculation and judgment of how the space is to be 'used' and moved through by the general public in advance.

Lighting is also an intangible medium. Regardless of circulation and space layout of the architecture, the medium of lighting can be divided into natural light and artificial light. Natural light is the light of the sun which cannot penetrate architectural space without 'openings'. The term 'opening' here not only refers to the void opening but also refers to those materials that mediate light. There are two types of opening in the museum; horizontal opening and vertical opening.

In the museum, horizontal opening refers to skylights. In many cases, sky-lights are horizontal openings in the ceiling of the architecture which are installed with transparent glass or frosted glass, both of which are materials that mediate direct sunlight. In addition to glass, which is the contemporary material, it is acknowledged that on the Parthenon Temple, the roof above the Ionic Frieze which is made of Pentelic marble could also mediate direct sunlight. Therefore, in the practical sense, direct sunlight could be mediated by these horizontal 'openings' constructed from different materials.

Vertical opening refers to openings on the vertical architectural element. Apparently, in the museums, the vertical architectural element refers to the wall. In general, vertical openings refer to the windows. Under many circumstances, owing to the condition of collections, large areas of windows would not be adopted in the museums, although sometimes a limited number of windows would be adopted on the upper section of the walls. Thus, regardless of horizontal openings or vertical openings constructed with materials, requirement of the openings should coincide with the collection of artefacts. A museum is not a visitor centre or a shopping mall that requires large open areas,

particularly openings of transparent glass. It is necessary to employ openings to establish some visual connections with specific archaeological sites, but viewing and enjoying the exterior scenery is not the primary task of museums.

Inasmuch as the directions of lighting are determined by horizontal openings, and vertical openings are almost perpendicular, the numbers of the horizontal openings and vertical openings should be in equilibrium. In other words, the ultimate lighting in the gallery needs to be mediated. As in the NAM Parthenon Gallery, both horizontal and vertical openings are employed in the lighting design of the Gallery.³⁸⁸ The material of the horizontal openings is frosted glass, and the material of the vertical openings is transparent glass. The area of the vertical openings obviously exceeds the area of the horizontal openings. Therefore, the significance of the horizontal opening is very weak, resulting in disorderly and unsteady overall lighting condition of the NAM Parthenon Gallery space. To communicate in the museum does not mean having to produce an arbitrary and chaotic atmosphere. The lighting conditions should be steady as well as vivid.

In the museums, artificial light is usually installed in combination with natural light to adjust the lighting condition in the gallery. For a gallery immersed with natural light, artificial light is the catalyst for an optimum lighting condition. For galleries lacking in natural light, artificial light plays the significant role in the gallery. Regardless of whether the lighting is natural or artificial, the medium of light not only illuminates the condition of artefacts for the general public to view, but also retains the atmosphere of the museum environment in its optimum condition.

To summarise, composed of both intangible and tangible media, architecture needs to be considered as the effective and convincing context of artefacts. By means of the tangible medium of material, the term 'artefact' thus refers to both the displayed artefact and the architecture within which it is contained. Material should be

³⁸⁸ See 5.2.3 Lighting, pp. 196-198.

reasonably selected from the perspective of artefacts rather than arbitrarily from the perspective of fashionable design, or other shifting criterion. Harmony of the materiality of the artefact - both the small and the large - is the direct aspect of architecture which could generate an immediate experience for the general public. This is the significance of architecture; as a tangible representation that collects and presents the artefacts in a tangible way. Certainly, this is not to say that the intangible media of circulation, space layout, and lighting are of lesser important. From the perspective of the general public, their immediate experience relies on what they see first, and then relies on what they feel and sense afterwards. Hence, *the material of the architecture needs to be considered as the prior aspect of its representation.*

Even if the material of the architecture is of primary consideration during the process of constructing the museum space, from the perspective of the museum design group, the intangible media of circulation, space layout and lighting equally need to be well organised. Based on the discernment of the artefacts containing past events, ultimate atmosphere or composition of space should be penetrated in advance. For any new museum before construction, the museum design group needs to have the ability to predict the movement of the general public in the future, in order to arrange the circulation. The museum design group also needs ability to imagine the atmosphere created by the space layout of the artefact, and the lighting conditions. Experiencing the intangible medium, the general public is unaware of the significance of the intangible medium, such as the effective direction of circulation, the vivid atmosphere of the gallery space and the proper lighting. For the museum design group, all intangible media should be consciously and reasonably constructed.

As mentioned in the Introduction, the term ‘museum architecture’ contains at least two levels of meanings: it can either refer to architecture as an artefact displayed inside the museum, or it more commonly refers to the enclosing fabric of the museum building

itself.³⁸⁹ Therefore, with all intangible media constructed altogether, museum architecture - or we could say the artefact and architecture together - could thus offers the general public a space with embodied experience. However, under such circumstances, the artefact - both the displayed artefact and the architecture - would be unable to 'speak'. So at what point, and under what circumstances, are they able to 'speak' for themselves?

7.3 Audiovisual Texts

Since artefacts are tacit metaphors, they require an interpretive framework to help them 'speak'. Since 'all narrative is rooted in our ancient heritage of storytelling', verbal-storytelling, as the original form of storytelling, could be regarded as the intangible medium for human beings to communicate.³⁹⁰ Apparently, in the museum context, if the artefacts could be regarded as the tangible medium connecting the past and the present, then the verbal-storytelling of the interpretive framework could be regarded as the intangible medium connecting the past and the present. While the verbal-storytelling is adopted in the interpretive framework of the museums, how can this intangible medium be applied in the museums? The application of verbal-storytelling is audiovisual texts. Text, as stated in Chapter Two, does not refer to any discourse fixed by writing which was demonstrated by Ricoeur, but is further stated as *the abstract concept of any linguistic discourse that can be fixed by human action*.³⁹¹ Therefore, whenever the term 'text' is mentioned, it needs to be indicated as text with a specific action such as written text or verbal text, or graphic text rather than a single construct. Like the medium of artefact and architecture, the medium of audiovisual texts also comprises two categories; content and representation.

7.3.1 Content

Because both the artefact and architecture are tacit, the content of audiovisual texts is

³⁸⁹ See Introduction, p. 2.

³⁹⁰ Bruner. *Acts of Meaning*, p. 45.

³⁹¹ See 2.3.1 Text and Artefact, p. 53.

the translation of representations of both artefact and architecture. Translation of the individual artefact is the translation of its content and representation. Content of artefact indicates events of past human beings which are contained by and within that artefact. Representation of artefact indicates type of material, colour of material, dimensional characters and bodily sense of the artefact. It is clear that these aspects are mentioned in the above discussion of artefacts. During the process of understanding various aspects of the meanings of an artefact, these aspects are useful categories for the museum design group to 'decode' the artefact. When the process of understanding artefact is completed, these useful aspects can be translated into various texts not only for interpreting the artefact but also for communication in the museums.

In many cases, artefacts in the museum context are displayed collectively. If the content of audiovisual texts should first and foremost translate meanings of individual artefacts, then the content of audiovisual texts should also translate meanings of collective artefacts. Translation of meanings of collective artefacts differs from translation of individual artefacts. In regard to the translation of the meanings of individual artefacts, interpretations of factors such as type of material, colour of material, dimensional characters and bodily sense, could more or less be based on the research materials of artefacts, such as literature research and other documents.

The process of translating the meanings of collective artefacts is challenging. In the museum context, different artefacts from different times and places are displayed collectively. Within the collection, some artefacts might have relationships; however some may not. Therefore, it is the museum design group's assignment to interpret the relationship between artefacts and construct the collections accordingly. The interpretations of relationships between artefacts could be acknowledged from the previous research materials. However, under some circumstances, the interpretations of the relationships between artefacts can only be speculative. Collection-making is

not about displaying the truth, but about how the meanings are interpreted.³⁹² Relationships between artefacts can be interpreted as similar or different. Therefore, artefacts are interpreted in the form of the collection, which does not have its own unique history, but rather a collection of meanings. After all, primary makers of artefacts could never have known that their creative products would be displayed with other human beings' creative products in such a collective way.

Inasmuch as artefacts are displayed collectively, audiovisual texts need to interpret some relationships between artefacts. Even though these interpretations are museum design groups' speculations, it is necessary to communicate with the general public. This is not the situation of deciding what is right or wrong, but rather the situation of discussion from different perspectives to reveal the meanings of the artefacts.

Artefacts are the fundamental elements in the museum. It is undoubted that, first and foremost, audiovisual texts should translate the meanings of artefacts individually and collectively. When the architecture is constructed based on the understanding of the artefacts, meanings of architecture should also be translated into texts for the purpose of communication.

In regard to audiovisual texts of interpreting artefacts, the interpretations are more or less related to the events contained within the artefacts, which happened in the original context of the artefacts. In other words, the content of the audiovisual texts interprets the artefacts in relation to their original contexts. Even though there are speculations of collective artefacts, interpretations also derive from an understanding of the artefacts in their original contexts respectively, and in the museum context collectively.

In regard to museum architecture, the content of audiovisual texts needs to interpret the relationship between artefacts and their new context - the museum architecture. The content of audiovisual texts needs to interpret the reason why the museum

³⁹² Hein. *Learning in the Museum*, p. 177.

architecture could be regarded as a context for artefacts; and what significance the architecture holds in contributing to communicating meanings of the artefact. Based on the representation of architecture as containing four categories - material, circulation, space layout, and lighting - the significance of these four aspects could be translated into audiovisual texts to inform the general public of the significance of the architecture, which in turn contributes to communicate meanings of artefacts. Hence, even if the architecture offers an immediate experience of the artefacts and architecture, audiovisual texts help to communicate the interpretation to the general public at the individual level.

7.3.2 Representation

Text, as defined above, not only refers to any discourse fixed by writing, as stated by Ricoeur, but is the abstract concept of any linguistic discourse that can be fixed by human action. Therefore, the term 'audiovisual text' is the abstract idea or concept of interpretation in the museum. In order to communicate with the general public and translate meanings of artefacts and architecture, audiovisual texts require representations. Representation of audiovisual texts could be divided into aspects of *type of audiovisual texts*, *medium of representation*, and *style of communication*.

Audiovisual texts, as the term suggests, consist of audio text and visual text. In the museum context, sometimes the artefact - both artefact and architecture - is translated by audio text or visual text respectively, and at other times, artefact is translated by audio and visual texts altogether. Therefore, communication with artefacts involves the general public's cognitive activities through hearing, touching, watching and speaking, and so on. In addition to the immediate and embodied experience which is generated by tacit artefacts - both the artefacts and architecture - communicating in the museums also contains intrapersonal and interpersonal activities, which are generated by audiovisual texts. Through participating activities constructed by audiovisual texts, the general public is not only entertained, but also learns in the museums. In the museum

context, audiovisual texts are presented by both intangible and tangible media.

The intangible medium of audio texts is sound. Certainly, it is arguable that the medium of representing audio text also includes the device of transmitting sound. The reason why the researcher only emphasises the significance of the intangible medium of sound here is because of the significance of the application of verbal-storytelling of interpretive frameworks in the museum. Primitive human beings originally created the representation of their daily events by the sound of human speech. Regardless of the person who is telling the events or the person who is hearing the events, the communication process is conducted by the sound of human speech. As Saussure demonstrated, ‘the result is that people forget that they learn to speak before they learn to write, and the natural sequence is reversed’.³⁹³ Therefore, the prior medium of representing audio text is the intangible medium of sound. Certainly, the intangible medium of sound needs to be combined with the tangible medium of audio guides or other technical devices, which could transmit sound.

In regard to visual text, the medium of representation is tangible. The medium could be physical, such as the text carved on the wall of Duveen Gallery indicating the significance of the Gallery as a place particularly designed for these marbles; thus the physical material of the wall in this context is therefore the medium of texts. In the museum, the frequently employed physical media of visual text are text board and small labels. The medium could also be technical, such as computer screens, audio guides, and other forms of technology. Compared with the technical medium, the researcher believes that, text presented by the physical medium, endows more power and significance. The museum design group could consider employing a physical medium to represent text, which has everlasting significance.

Based on the observations of the researcher, audio texts and visual texts are easier to communicate by the general public than written text. The museum design group

³⁹³ Saussure. *Course in General Linguistics*, p. 25.

should consider the balance between different texts in order to achieve effective and successful communication in the museums. Audiovisual text is the medium of communication in the museum. There are different styles of communication that can be divided into three aspects: style of dialogue; style of telling; and style of translation.

Style of dialogue refers to question and answer. As discussed above, the museum collection is not about displaying the truth, but about how the meanings are interpreted.³⁹⁴ Therefore, represented by different media, the dialogue style of audiovisual text could encourage an environment of discussion among the general public. Differing from an authoritative attitude, interpretation of artefacts could be easily accessed in terms of the style of question and answer. Regardless of the medium of representing audiovisual texts, individual discussions with the artefacts - both artefact and architecture - could be established. Confronted with such a style of asking and answering, self-learning could be achieved in the museums.

Since verbal-storytelling is employed in the interpretative framework of museum architecture, the significance of 'telling' should always be born in mind by the museum design group. Apparently, in many cases, audio text represented in an audio guide adopts the style of telling. In regard to other texts such as written text, the style of representing texts could also adopt 'telling'. In other words, written text needs to be represented more as 'spoken' than literal. Certainly, this is not to suggest that written text should be represented completely in terms of the spoken manner. It is necessary for the museum design group to consider the style of telling in some cases within which the style of telling could more effectively communicate the meanings of artefacts.

Whether artefacts or architecture, their meanings are translated by audiovisual texts. Artefacts and architecture are materialised multi-dimensional bodies. Therefore, translation needs to be arranged individually and collectively. In other words,

³⁹⁴ Hein. *Learning in the Museum*, p. 177.

representations of audiovisual texts need to be considered individually and collectively. If an artefact endows more significance, collective audiovisual texts should be employed. Within collective audiovisual texts, translations need to be carried out at the visual level or audio level first, and then at the written level. It is natural for museum professionals to regard written text as the easiest level of communication to be accessed. However, according to the observations of the researcher, visual and audio texts are more effective in the process of communication than written text, for the reason that artefacts are themselves visual elements rather than abstract texts. Therefore, the meanings of artefacts could be translated to highlighted images at first, following which written texts could be employed as detailed or supplementary interpretations. The museum design group should arrange audiovisual texts properly so that they can effectively help in translating the meanings of artefacts - both artefacts and architecture - and communicating with the general public.

To summarise, the museum is a tangible medium that is composed of the media of artefact, architecture and audiovisual texts. Culture, as an accumulation of human events over time, has been recorded by the tangible medium of artefact - both the artefacts and architecture - and has been passed down through time by the intangible medium of verbal-storytelling.

Overall Conclusion

Overall Ideas of the Research

The overall idea of this research is to test museum architecture as a medium of spatial-storytelling to mediate cultural meaning contained by artefacts. The researcher believes that museum architecture undertakes the task not only of preserving cultures, but also of communicating and passing on cultures. From a personal point of view, culture is not merely a linguistic sign or an abstract idea that is frequently mentioned by contemporary people. Culture is the intangible medium that can be communicated, learned and understood by artefacts which are created through and inherited from the past. The medium of museum architecture consists of the medium of artefacts, the medium of architecture of the museum, and the medium of audiovisual texts.

As discussed in Chapter Two, artefacts embody diverse meanings; functional, metaphorical, narrative and material. Therefore, the selection of the Ionic Frieze as the fundamental artefact of this research is actually based on the narrative meanings contained within it. It is acknowledged that the depiction of three main groups of Parthenon sculptures - pediments, metopes and Ionic Frieze - could all be considered as visual-storytelling of the events in relation to the Goddess Athena, the Patroness of the city of Athens. Compared with the pediments and metopes, the reason for this focus of this research on the Ionic Frieze is not only because it relies on its prominent continuous spatial sequence of depicting the ritual event, Panathenaia, but also relies on its cultural significance in relation to the Parthenon Temple.

As discussed in Chapter Three, regarded as one of the most influential architectural achievements in Western civilisation, the Parthenon Temple was the place to house Athena's statue. What is more, the Parthenon was 'in itself a votive offering which was

made in gratitude for past benefit or in the favours yet to come'.³⁹⁵ Therefore, the ritual significance of the Parthenon Temple as the dedication to the city's Patroness is not merely conveyed by oral or written materials created and left by ancient Greeks, but also has already been tangibly recorded by the architecture of the Temple and its sculptures.

Compared with the metopes and the pediments which are the depiction of mythic events in relation to Athena, the representation of the Ionic Frieze is created on the grounds of realistic ritual events that happened in ancient Athens. As a Doric Temple dedicated to Athena, the Ionic Frieze further actualises such cultural significance by its Ionic characters which are usually constructed on the Ionic temples, as continuous relief enriched with sculptures. From this point of view, the Ionic Frieze was originally intended not merely the sculptural decoration of the Parthenon Temple, but as an integral perhaps even the most prominent part of the whole Parthenon Temple. This original architectural significance would contribute to the later evaluation of the spatial design in two Parthenon Galleries. What is more, the Parthenon Temple is not merely the votive offering to the city's patroness, but could be regarded as the tangible and permanent spatial-storytelling of the lives and memories of ancient Greeks. The original Ionic Frieze validated the Parthenon Temple to be considered as the home of the Goddess Athena. Therefore, part of the original cultural significance of the Temple lay in its spatial function as a medium for displaying the spatial-storytelling of the Ionic Frieze. The Ionic Frieze and the Parthenon Temple together embody the cultural meaning of the ritual event of Panathenaia; and both could be considered as the media for constructing and conveying the culture of ancient Greece, as well as the media for the later generations to experience an important aspect of the historical past.

Since significant meanings of the Ionic Frieze are closely associated with the spatial configuration of the Parthenon Temple, the place upon which it is carved and 'displayed', new interpretation of the Ionic Frieze in the Parthenon Galleries should

³⁹⁵ Corbett. *The Sculptures of the Parthenon*, p. 8.

also consider various aspects of the spatial organisation. Therefore, the original significance of the Parthenon Temple as a medium of spatial-storytelling of its Ionic Frieze offers potential opportunities to carry out this research not only in relation to the Duveen Gallery in the British Museum and the NAM Parthenon Gallery in the New Acropolis Museum, but also to look back at the original condition of the Ionic Frieze on its original context in the Parthenon Temple.

Hence, the application of the idea of museum architecture as a medium of spatial-storytelling is not arbitrary in this case, but is actually derived from the fact that the original Parthenon Temple can also be seen as a medium of spatial-storytelling of its prominent sculptures, especially the Ionic Frieze. Through the case study of the Parthenon Temple in Chapter Three, the Ionic Frieze could be regarded as a medium of visual-storytelling ‘displayed’ on the upper section of the Parthenon cella for the reason that it represented the ritual Panathenaia festival. Moreover, the original Temple could also be seen metaphorically as a ‘museum’ for the reason that it not only contains various media of visual artefacts such as the Ionic Frieze and other sculptures, but also the medium of architectural space which is the Temple itself. Another important aspect is that, as a setting for religious activities, it would also have presented various ‘audiovisual texts’ in the form of onsite ritual performances of the Panathenaia and other relevant literatures.

As a framework for evaluating the spatial design of the Parthenon Galleries in both museums, the two case-studies include an analysis of four key architectural characteristics: aspects of circulation, space layout, lighting and material, which are taken as the predominant elements of museum architecture.

Even though there are four aspects with which to evaluate the spatial design of the Parthenon Galleries, the material dimension could be regarded as the most important of these for the reason that it makes a major contribution towards revealing the original architectural significance of the Ionic Frieze as carved into the wall of the

Parthenon Temple. In regard to the Ionic Frieze on the Parthenon Temple, it would not be difficult to conclude that the prominent significance of the Ionic Frieze is its spatial sequence. What is more, the spatial sequence is identified by the architectural space of the Parthenon cella and the marble material of the cella. In other words, material is one of the key media to actualise the spatial significance, without which the space could never be tangibly experienced. Certainly, the spatial significance of the Ionic Frieze also relies on aspects of circulation, space layout, and lighting. The artefact of the Ionic Frieze and the architectural space of the Parthenon Temple, particularly the colonnaded space surrounding the Ionic Frieze, together generate the embodied experience of the Ionic Frieze and the architectural space of the Temple.

As analysed in Chapters Four and Five, and compared in Chapter Six, we could say that the Duveen Gallery in the British Museum has successfully interpreted the Ionic Frieze in a new context. Compared with the NAM Parthenon Gallery, it seems at first sight that the space layout of the Duveen Gallery has little connection with the original space layout of the Parthenon Temple. However, the Duveen Gallery space nevertheless *metaphorically* reveals the character of the colonnaded space which surrounds the Ionic Frieze on the Parthenon Temple. What is more, the marble material of the interior wall of the Duveen Gallery further reinforces the spatial connection of the Gallery space with the Ionic Frieze. Displayed in the central, and largest, area of the Duveen Gallery, the Ionic Frieze easily dominates the general public's attention. Moreover, by using a similar material as the Ionic Frieze, the wall against which the frieze is displayed together with the Ionic Frieze itself, become an integrated architectural entity once again.

By contrast, the NAM Parthenon Gallery successfully replicates the original orientation of the Parthenon Temple. It, however, does not effectively express the atmosphere of the original architectural space of the Parthenon Temple, partly because of the application of modern concrete with the central core of the building. Hence, within the Gallery space, the position of the Ionic Frieze is greatly weakened in its

capacity to convey various levels of meanings it contains.

Overall, if the medium of the Ionic Frieze offers opportunities for the general public to rediscover events and meanings relating to ancient Greece and the Goddess Athena, the spatial significance of the medium of Gallery space lies in the fact that it offers direct embodied experience for the general public within a materialised architectural space. For Ricoeur, the significance of interpretation lies in how it interprets the meanings of the written documents rather than the structural explanation, and how it invites the meaningful action of reading the written documents and their interpretation. Thus, the significance of the medium of the museum architecture lies in the fact that it should also interpret the meanings of the artefacts contained within it, rather than just structural imitation. Similarly, by offering the embodied experience of the artefacts, the medium of architecture should drive the general public's interaction with the artefacts in a spatial way. In museum architecture, artefacts are the fundamental media for the later generation to discern the past. Therefore, the medium of architecture of the museum should not dominate the significance of the artefacts, otherwise, what is the significance of visiting the museum other than as a visitor centre? The design of the space should be paid as much attention as the significance of the artefacts. Even though the artefacts are more important, the architecture of the museum should also contribute to direct the general public's interaction with the artefacts.

Based on the researcher's observations in both Parthenon Galleries during the on-site case studies, it would not be difficult to find that even though the Duveen Gallery contributes to communicating meanings of the Ionic Frieze, many visitors still choose to walk around the space and then leave, which means that they do not pay much attention to the artefacts. For museum professionals, it is quite understandable that it is difficult to control what will happen after the construction of each gallery space. However, it is really necessary to predict some aspects of the spatial significance of the space which should help to guide the general public to engage with the artefacts. In regard to the NAM Parthenon Gallery, replication of the original orientation of the

Parthenon Temple generates unlimited freedom for the general public. Therefore, the general public is less guided by the architectural space when visiting the Gallery. Thus, the spatial-interpretation of artefacts in the museum architecture should consider interpreting and reflecting the significant meanings contained by artefacts, as well as, more or less intentionally guides the general public to experience the artefacts by architectural space.

As mentioned above, the medium of the museum consists of the media of artefacts, architecture and audiovisual texts. Hence, what is the significance of the audiovisual texts? Regarded as three dimensional bodies, if the significance of the media of artefacts and architecture of the museum lie in the fact that they both offer the general public immediate and embodied experience, the significance of audiovisual texts is that they furthermore contribute to communicating the meanings of the artefacts. By interpreting artefacts at a detailed level, with the help of audiovisual texts, the general public can not only sense the space, but can also apply self-learning during the process of interacting with the artefacts. Inasmuch as artefacts and architecture are usually experienced altogether, audiovisual texts need to interpret the meanings contained by artefacts, as well as interpret the architectural space in relation to artefacts. Without audiovisual texts, the experience of the general public only occurs at the personal level, during reflection on the artefacts or the architecture. With audiovisual texts, such personal reflection can be developed into different levels of understanding which could then be discussed and communicated through different scales of contexts.

To summarise, through the research, the medium of museum architecture communicating with the general public consists of the media of artefacts, architecture of the museum, and audiovisual texts. Regarded as the tangible medium left by the past, diverse meanings contained by the artefacts are communicated by the artefacts themselves, by the architecture of the museum and by the audiovisual texts. Differing from the audiovisual texts, the meanings of artefacts are mediated by the medium of architecture through immediate experience which can only be sensed. Similarly,

differing from the architecture of the museum, meanings of artefacts are mediated by the medium of audiovisual texts through cognitive activities which build up an engaging environment of self-directed learning. The architecture should be considered as the convincing context of the artefacts in the forms of material, space layout, circulation and lighting. The audiovisual texts need to interpret the significance of both the artefacts and the architecture as a new context.

On one hand, sometimes the general public more or less acknowledge the significance of artefacts displayed in the museum. Therefore, the spatial-interpretation of the artefacts would offer a previously unimagined new context for the general public to sense and to evaluate. On the other hand, through interaction with the audiovisual texts, the general public would modify, develop, or rethink their personal interpretations of the artefacts in relation to the original context or within the newly constructed architectural space. Therefore, the significance of artefacts, architecture and the audiovisual texts are tightly connected, without which the understanding of the artefacts would be somewhat restricted.

In this research, significant meanings contained by the Ionic Frieze concentrated on its original significance of depicting the ritual Panathenaia. Hence, the evaluation of the Parthenon Galleries also concentrates on the spatial interpretation of communicating cultural significance of the Ionic Frieze. However, during the transformations of the Parthenon Temple, the Ionic Frieze had already accumulated other meanings, of which the Elgin issue is the most controversial. Due to the concentration of cultural significance of the Ionic Frieze on the Parthenon Temple, the political issue signified by the Elgin Marbles is apparently of much less concern, and less researched. The analyses and the comparisons of the Parthenon Galleries in both museums are all based on the interpretations of cultural significance of the Ionic Frieze.

Significance of the Research

The assessment of the research can be divided into two parts; its theoretical value and its practical value.

To begin with, using the idea of museum architecture as the spatial-storytelling of the artefacts, the theoretical value of this research is the establishment of the idea of storytelling-interpretation. As discussed in Chapter One, in order to interpret the written documents, Ricoeur promoted the idea of a model of text which could be regarded as the text-interpretation of the underlying meanings of those documents written in the distant past. According to narrative theory and cognitive psychology, storytelling, as its original verbal way of telling events, could also be regarded as human beings' interpretation of daily life. Differing from other interpretations, the storytelling-interpretation is the specific interpretation not only conveyed by the medium of human actions but also by the medium of materialised representation.

Being applied in the museum architecture, as discussed in the second section of Chapter Two, artefacts differ from texts. Therefore, storytelling-interpretation, especially the original verbal way of telling events, is adopted to interpret artefacts in the museum. Even though interpreting artefacts is different from interpreting written documents, the medium of various audiovisual texts comprises the medium of verbal-storytelling-interpretation of the interpretive framework in the museum. As Saussure demonstrated, 'people forget that they learn to speak before they learn to write, and the natural sequence is reversed'.³⁹⁶ Therefore, theoretically speaking, verbal-storytelling-interpretation would contribute to the interpretation of artefacts by shaping the engaging environment of self-learning for the general public.

Supported and convinced by case studies of the two Parthenon Galleries in Chapters Four, Five, and Six, the idea of spatial-storytelling is further developed on the grounds

³⁹⁶ Saussure. *Course in General Linguistics*, p. 25.

of verbal-storytelling-interpretation. If the verbal-storytelling-interpretation contributes to communicate meanings of artefacts by producing cognitive activities which the general public can experience, the spatial-storytelling therefore contributes to communicate meanings of artefacts by generating immediate experience with the general public. Meanings of artefacts could be mediated by verbal-storytelling-interpretation for the reason that the medium of audiovisual texts restores events contained by artefacts in the cognitive sense, which can be heard, viewed and imagined. Regarded as the convincing brand new context of the artefacts, spatial-storytelling mediates meanings of artefacts in a tangibly experiential way.

If verbal-storytelling-interpretation can generate specific understandings of artefacts from a detailed level to a general level through the linguistic process, then spatial-storytelling can generate ambiguous understandings of artefacts through experiential process which is beyond the linguistic process. In the museums, spatial-storytelling concretely represents artefacts within a materialised context. Containing verbal-storytelling-interpretation within, spatial-storytelling not only contributes to offer the general public the embodied experience of artefacts and architecture as a whole, but also contributes to the generation of different levels of understandings through different levels of interpretations. Hence, the establishment of the idea of spatial-storytelling contributes to develop the theory of hermeneutics as the operations of the understandings not only to the interpretation of written documents, but also to the interpretation of artefacts. Artefacts, after mediation by the architecture of the museum and verbal-storytelling-interpretation, not long refer to the displayed archaeological remnants, but to a complete multi-dimensional body composed of artefacts and architecture altogether, as an engaging environment generating both higher levels of understanding as embodied experience, and detailed levels of understanding as verbal-storytelling-interpretation of this brand new context.

As mentioned in the Introduction of the thesis, this research has a strong practical relevance which could be understood as the application of theoretical ideas to practical

cases. Concluded in Chapter Seven, the practical value of the research is the specific conclusion on the design principles in relation to the idea of museum architecture as the medium of spatial-storytelling. According to the researcher's observations on the media of artefacts, architecture and audiovisual texts, content and representation are two universal categories that could be employed to interpret each medium and construct the spatial-storytelling.

As the fundamental medium in the museum, artefacts offer a great deal of potential opportunities to the construction of architectural space and the installation of the audiovisual texts. Inasmuch as artefacts are three dimensional materialised bodies, they also have the capacity to generate an immediate experience which is beyond the linguistic interpretations. Therefore, museum professionals should interpret material representations of artefacts as well as underlying meanings contained by artefacts. In order to construct a convincing context for the artefacts, the most important aspects to be considered during architectural design are material, circulation, space layout and lighting. Furthermore, supported by the comparison of two Parthenon Galleries in Chapter Six, material is the most prominent aspect for the reason that it is the material that brings the architectural space into the reality. In fact, though, all four aspects need to collectively contribute in order to reflect the underlying meanings of artefacts. Material is the key aspect which could offer a direct sense of the formation of the architectural space. Circulation, space layout and lighting are the hidden aspects which can only be experienced by the movements of the general public through the museum space. Hence, based on the diverse meanings contained by artefacts, museum professionals should pay more attention to connecting the materiality of the architecture with the materiality of the artefacts in the architecture during the design process. What is more, any aspects amongst circulation, space layout and lighting should be considered as a potential tool to interpret the meanings of artefacts.

If the representation of artefacts offers opportunities for the museum professionals to construct the architectural space, then the installation of audiovisual texts contributes

to the bridging of different levels of understanding between individual artefacts, between collective artefacts, and between architecture and artefacts. Even though the reconstruction of artefacts and architecture altogether can generate an environment of embodied experience, museum professionals still need to ‘tell’ the general public about the contents or the representations of the artefacts and architecture. According to the informal interviews conducted with Evelyn Vouza, archaeologist in the NAM Parthenon Gallery, it is very common for museum professionals to ignore the interpretation of fundamental meanings of artefacts. For museum professionals, artefacts are familiar archaeological remnants, so sometimes they take for granted that basic knowledge is not worth being represented. However, for the general public, interpretations of artefacts should be carried out from their primary meanings to higher level of meanings such as metaphorical meanings. What is more, audiovisual texts also need to interpret meanings of architecture in relation to artefacts. For museum professionals, the architecture of museums not only needs to be constructed in relation to artefacts, but also needs to be interpreted by audiovisual texts in relation to the artefacts. Therefore, artefacts and architecture can together be regarded as a complete artefact, and the medium of audiovisual texts contributes to enrich the learning environment of museum architecture.

Specifically concluded in Chapter Seven, the design principles of the media of artefacts and architecture would help museum professionals construct the space beforehand. In the mean time, design principles of the medium of audiovisual texts would inspire museum professionals to install audiovisual texts in relation to artefacts and architecture effectively.

Suggestions for Further Research

As discussed above, as the focus of this research is on the cultural significance of the Ionic Frieze, the evaluation of two Parthenon Galleries is based on cultural significance rather than political issues which have already been raised by the

circumstances surrounding the Elgin Marbles.

Therefore, in the next stage, the interests of the research could be issues of the context of the Ionic Frieze in relation to the Elgin issues in both Parthenon Galleries. Due to its cultural significance, it is noteworthy that the Ionic Frieze has been successfully interpreted in the Duveen Gallery of the British Museum. However, removed from its original context of the Acropolis, other significances of the Ionic Frieze such as its relationship with the Parthenon Temple, with the Acropolis and with other Parthenon sculptures are to a greater extent ignored in Duveen Gallery. As discussed in Chapter Four, it would be difficult for the general public to imagine the original orientation of the Parthenon Temple and the Parthenon Sculptures. On the contrary, located near the Acropolis, it would be convenient for the general public to understand the original orientation of the Parthenon Temple and its sculptures in the NAM Parthenon Gallery. Therefore, questions could be asked such as, to what extent would the context exert influence on the general public's understanding of the artefacts? How does the aspect of material of the architectural space contribute to communicate meanings of the artefacts and generate an immediate experience of the artefacts and architectural space altogether? How do the aspects of circulation, space layout and lighting contribute to generate an immediate experience of artefacts and architectural space both respectively and collectively? Are there any differences between the general public's understanding of replicas and the original artefacts? If so, should the Elgin Marbles be returned to Greece?

Inasmuch as audiovisual texts also contribute to communicate meanings of artefacts, combined with the design of the architecture space, the museum professionals should also focus on the installation of the audiovisual texts. Therefore, relevant research questions could be asked such as, how could audiovisual texts contribute to facilitate visitors' understanding of artefacts according to different spatial arrangements? Would the selection of material of representative audiovisual texts exert an influence on the general public's understanding of the artefacts?

After all, putting all the above questions together, a major question can be addressed: inasmuch as the significance of contexts, should the Elgin Marbles be returned to Athens - its original context or remained in London - its current context? Other research interests could also be addressed as: spatial-storytelling of museum architecture in relation to visitors' self-learning in the museum; spatial-storytelling of museum architecture as mediation in different scales of context from urban to architecture to artefact; the contribution of the space layout of spatial-storytelling in relation to communicating meanings of artefacts or generating visitors' experiences; and the contribution of the circulation of spatial-storytelling in relation to shaping visitors' experiences of collections; among many others.

Bibliography

General Theory

- STEVENSON, Angus. *Oxford Dictionary of English*, Oxford: Oxford University Press, 2010.
- BONTA, Juan. P. *Architecture and its interpretation: a study of expressive systems in architecture*, London: Lund Humphries Publishers Ltd, 1979.
- BROADBENT, Geoffrey. *Deconstruction A Student Guide*, London: Academy Group Ltd, 1991.
- CONWAY, Hazel, and Rowan ROENISCH, eds. *Understanding Architecture: An Introduction to architecture and architectural history*, 2nd ed. London: Routledge, 2005.
- FLEMING, H. Pevsner. *The Penguin Dictionary of Architecture and Landscape Architecture*, 5th ed. London: Penguin Books Ltd, 1991.
- FRANCK, A. K. *Architecture from the inside out: from the body, the senses, the site, and the community*, 2nd ed. Chichester: Wiley-Academy, 2007.
- FRAMPTON, Kenneth. *Modern Architecture: A Critical History*, 3rd ed. London: Thames and Hudson Ltd, 1992.
- HILLIER, Jean, and Emma ROOKSBY, eds. *Habitus: A Sense of Place*, England: Ashgate Publishing Limited, 1995.
- KRELL, D. Farrell, ed. *M. Heidegger: Basic Writings*, revised and expanded ed. Great Britain: Routledge, 1978.
- LINDSAY, Jones. *The hermeneutics of sacred architecture: experience, interpretation, comparison*, Massachusetts: Harvard University Press, 2000.
- LYNCH, Kevin. *What Time Is This Place*, Massachusetts: The MIT Press Cambridge, 1972.
- LEACH, Neil, ed. *Rethinking Architecture: A reader in cultural theory*, London: Routledge, 1997.
- QUIRK, Randolph. *Longman Dictionary of Contemporary English*, 3rd ed. England: Pearson Education Limited, 1995.
- ROSSI, Aldo. *The Architecture of the City*, Massachusetts: The MIT Press Cambridge, 1982.
- DIXON, S. M. *Envisioning the Past: Archaeology and the Image*, USA: Blackwell Publishing Ltd, 2004.
- TILLEY, Christopher, ed. *Reading Material Culture: Structuralism, Hermeneutics and Post-Structuralism*, Oxford: Blackwell Publishers, 1990.
- WEBSTER, Helena. *Bourdieu for Architects*, Oxford: Routledge, 2011.
- BBC Documentary Film Series: Simon Schama's Power of Art* [film], directed by Carl HINDMARCH, London: BBC Worldwide, 2007.

Semiotics

- BARTHES, Roland. *Elements of Semiology*, translated from the French by Annette LAVERS and Colin SMITH, New York: Hill & Wang Publisher, 1977.
- BALLY, Charles, Albert SECHEHAYE and Albert REIDLINGER, eds. *Ferdinand de*

Saussure: Course in General Linguistics, translated from the French by Wade BASKIN, London: Peter Owen, 1960.

Cognitive

BRUNER, Jerome. *Acts of Meaning*, Massachusetts: Harvard University Press, 1992.

Narrative

ABBOTT, H. Potter. *The Cambridge Introduction to Narrative*, 2nd ed. Cambridge: Cambridge University Press, 2008.

SONTAG, Susan, ed. *A Barthes Reader*, London: Jonathan Cape Ltd, 1982.

BHABHA, H. K. Dissemination: time, narrative, and the margins of the modern nation, in H. BHABHA, ed. *Nation and Narration*, London: Routledge, 1990, pp. 292-213.

BHABHA, H. K. *The Location of Culture*, 1st ed. London: Routledge, 1994.

BROOKS, Peter, and Paul GEWIRTZ, eds. *Law's Stories: Narrative and Rhetoric in the Law*, Yale: Yale University Press, 1998.

CURRIE, Gregory. *Narratives and narrators: a philosophy of stories*, 1st ed. Oxford: Oxford University Press, 2010.

HERMAN, David, and Jahn MANFRED. *The Routledge Encyclopedia of Narrative Theory*, London: Routledge, 2007.

PRINCE, Gerald. *A Dictionary of Narratology*, revised ed. United States of America: University of Nebraska Press, 2003.

KEMP, P. T., and David RASMUSEN. *The narrative path: the later works of Paul Ricoeur*, 1st ed. Massachusetts: The MIT Press Cambridge, 1989.

RICOEUR, Paul. *Time and Narrative*, Chicago: University of Chicago Press, 1990, vol. 1.

Situated-learning

SCHÖN, D. A. *The reflective practitioner: how professionals think in action*, United Kingdom: Ashgate Publishing Limited, 1991.

LAVE, Jean, and Etienne WENGER. *Situated learning: legitimate peripheral participation*, Cambridge: Cambridge University Press, 1991.

Phenomenology Hermeneutics

LINGER, E. David, ed. *Hans-Georg. Gadamer: Philosophical Hermeneutics*, translated by David LINGER, Berkeley: University of California Press, 1992.

BERNASCONI, Robert, ed. *Hans-Georg. Gadamer: The Relevance of Beautiful and Other Essays*, translated by Nicholas WALKER, Cambridge: Cambridge University Press, 1987.

MAKKREEL, A. Rudolf, and Rodi FRITHJOF, eds. *Wilhelm Dilthey: Selected Works, Volume III: The Formation of the Historical World in the Human Sciences*, Princeton: Princeton University Press, 2002.

HEIDEGGER, Martin. *Poetry, Language, Thought*, translated by Albert HOFSTADTER, London: Harper Perennial, 1975.

- HEIDEGGER, Martin. *Being and time*, translated by John MACQUARRIE and Edward ROBINSON, New York: Harper & Row, Publishers, Incorporated, 1962.
- THOMPSON, B. John, ed. *Paul. Ricoeur: Hermeneutics and the Human Sciences: Essays on Language, Action and Interpretation*, translated by John B. THOMPSON, Cambridge: Cambridge University Press, 1981.
- RICOEUR, Paul. *From Text to Action: Essays in Hermeneutics II*, translated by Kathleen BLAMEY and John THOMPSON, New York: Continuum International Publishing Group Ltd, 2008.
- RICOEUR, Paul. *Time and narrative*, translated by Kathleen MCLAUGHLIN and David PELLAUER, Chicago: University of Chicago Press, 1984, vol. 1.
- WILD, John, ed. *Edmund. Husserl: The Crisis of the European Sciences*, translated by David CARR, United States of America: Northwestern University Press, 1970.
- WOOD, David, ed. *On Paul Ricoeur: narrative and interpretation*, 1st ed. London: Routledge, 1991.

Classical Architecture

- HERSEY, George. *The Lost Meaning of Classical Architecture: Speculations on Ornament from Vitruvius to Venturi*, Massachusetts: The MIT Press Cambridge, 1988.
- HVATTUM, Mari. *Gottfried Semper and the Problem of Historicism*, Cambridge: Cambridge University Press, 2004.
- MCEWEN, K. Indra. *Socrates' Ancestor: Essay on Architectural Beginnings*, Massachusetts: The MIT Press Cambridge, 1993.
- ONIANS, John. *Bearers of Meaning: Classical Orders in Antiquity, the Middle Ages and the Renaissance*, reprinted ed. Princeton: Princeton University Press, 1990.
- PARKER, H. John. *Classic Dictionary of Architecture: A concise glossary of terms used in Grecian, Roman, Italian, and Gothic architecture*, revised 4th ed. New York: New Orchard Editions, 1986.
- PLOMMER, Hugh. *Simpson's History of Architectural Development*, London: Longmans, Green and Co. Ltd, 1956, vol. 1.
- RYKWERT, Joseph. *On Adam's House in Paradise: The Idea of Primitive Hut in Architectural History*, Cambridge, Massachusetts: The MIT Press Cambridge, 1995.
- RYKWERT, Joseph. *The Dancing Column: On Order in Architecture*, Massachusetts: The MIT Press Cambridge, 1996.
- SEMPER, Gottfried. *The Four Elements of Architecture and Other Writings*, translated by Harry F. MALLGRAVE and Wolfgang HERRMANN, Cambridge: Cambridge University Press, 1981.
- SERLIO, Sebastiano, Vaughan HART and Peter HICKS. *Sebastiano Serlio on architecture*, Connell: Yale University Press, 1996.
- SPIERS, R. Phené *The Orders of Architecture, Greek, Roman, and Italian, selected*

- from Normand's Parallel and Other Authorities*, London: Batsford, 1897.
- SUMMERSON, John. *The Classical Language of Architecture*, London: Thames and Hudson Ltd, 1989.
- THOMAS, G. Smith. *Vitruvius on architecture*, New York: The Monacelli Press, Inc, 2003.
- VITRUVIUS, Robert. *The Ten Books on Architecture*, translated by Morris. H. Morgan, New York: Dover Publications, 1960.
- VIGNOLA, B. D. Giacomo, and Branko MITROVIC. *Canon of the Five Orders of Architecture*, New York: Acanthus Press, 1999.

Modern Architecture

- LOOS, Adolf. *Ornament and Crime: Selected Essays*, translated by Michael MITCHELL, California: Ariadne Press, 1998.
- VENTURI, Robert, Denise S. BROWN and Steven IZENOUR. *Learning from Las Vegas*, revised ed. Massachusetts: The MIT Press Cambridge, 1977.
- VENTURI, Robert. *Complexity and Contradiction in Architecture*, London: Thames and Hudson Ltd, 2002.

Postmodern Architecture

- JENCKS, Charles. *The language of post-modern architecture*, New York: Rizzoli, 1991.
- TSCHUMI, Bernard. *Architecture and Disjunction*, Massachusetts: The MIT Press Cambridge, 1996.

The Parthenon

The Parthenon and the Parthenon Frieze

- BEARD, Mary. *The Parthenon*, Massachusetts: Harvard University Press, 2002.
- BRUNO, J. Vincent. *The Parthenon: Illustrations, Introductory Essay, History, Archaeological Analysis, Criticism*, 1st ed. New York: Norton, 1974.
- CHOREMI, Alkistis. *The Sculptures of the Parthenon: Acropolis, British Museum, Louvre*, Athens: Ephesus, 2004.
- CORBETT, E. Peter. *The Sculpture of the Parthenon*, England: The King Penguin Books, 1959.
- CHRISP, Peter. *The Parthenon: how it was built and how it was used*, England: The Creative Publishing Company, 1979.
- FERGUSON, James. *The Parthenon: an essay on the mode by which light was introduced into Greek and Roman temples*, London: John Murray, 1883.
- HOLLIS, Edward. *The secret lives of buildings: from the Parthenon to the Vegas Strip in thirteen stories*, New York: Metropolitan Books, 2009.
- JENKINS, Ian. *The Parthenon Frieze*, London: The British Museum Press, 1994.
- KUHL, C. Isabel. *50 Buildings you should know*, London: Prestel, 2007.
- LAGERLÖF, R. Margaretha. *The Sculptures of the Parthenon: Aesthetics and Interpretation*, New Haven: Yale University Press, 2000.
- NEILS, Jenifer, ed. *The Parthenon: From Antiquity to the Present*, Cambridge:

- Cambridge University Press, 2005.
- PADOVAN, Richard. *Proportion: science, philosophy, architecture*, 1st ed. New York: E & FN Press, 1999.
- PSARRA, Sophia. The Parthenon and the Erechtheion: the architectural formation of place, politics and myth, *The Journal of Architecture*, Spring 2004, vol. 9, pp. 77-104.
- ROBERTSON, Martin, and Alison FRANTZ. *The Parthenon Frieze*, London: Phaidon Press Limited, 1975.
- GARDNER, W. Robert. *The Parthenon: its science of forms*, New York: New York University Press, 1973.
- TOURNIKIOTIS, Panayotis. *The Parthenon and Its Impact in Modern Times*, New York: Harry N. Abrams, Incorporated, 1994.
- WOODFORD, Susan. *The Parthenon*, Cambridge: Cambridge University Press, 1981.
- GIALOURÈS, Nicholas. *Classical Greece: the sculpture of the Parthenon (the Elgin marbles)*, London: Oldbourne Press, 1960.

The Elgin Marbles

- BARKAN, Elazar, and Ronald BUSH, eds. *Claiming the Stones/Naming the Bones: Cultural Property and the Negotiation of National and Ethnic Identity*, Los Angeles: Getty Publications, 2002.
- COOK, B.F. *The Elgin Marbles*, London: The British Museum Press, 1984.
- GREENFIELD, Jeanette. *The Return of Cultural Treasures*, 3rd ed. Cambridge: Cambridge University Press, 2007.
- HITCHENS, Christopher. *The Elgin Marbles*, London: Chatto & Windus Ltd, 1987.
- MILIARAKIS, Antonios. *The Seizure of the Parthenon Sculptures*, translated by E. GHIKAS, Athens: The Society for the Study of Greek History, 2002.
- ST.CLAIR, William. *Lord Elgin and the marbles*, London: Oxford UP, 1967.

The Panathenaia

- MANSFIELD, John. *The Robe of Athena and the Panathenaic Peplos*, Ph.D. thesis, University of California at Berkeley, 1985.
- NEILS, Jenifer. *Goddess and polis: the Panathenaic Festival in ancient Athens*, New Jersey: Princeton University Press, 1992.
- NEILS, Jenifer, ed. *Worshipping Athena: Panathenaia and Parthenon*, Wisconsin: University of Wisconsin Press, 1996.

Athenian Cloth-Making

- MOON, G. Warren, ed. *Ancient Greek Art and Iconography*, Wisconsin: University of Wisconsin Press, 1983.
- E, J.W. Barber. *Prehistoric Textiles: The Development of Cloth in the Neolithic and Bronze Ages*, Princeton Paperback ed. New Jersey: Princeton University Press, 1991.

Museum Architecture

General

- ALEXANDER, P. Edward, and Mary ALEXANDER. *Museums in Motion: An Introduction to the History and Functions of Museums*, 2nd ed. Lanham: AltaMira Press, 2008.
- ARNOLD, Ken. *Cabinets for the Curious: Looking Back at Early English Museums*, England: Ashgate Publishing Limited, 2006.
- AVERY, Bryan. A Museum is all about people, *Museums Journal*, 1988, vol. 87, no. 4, pp. 197-200.
- BEDFORD, Leslie. Storytelling: The Real Work of Museums, *Curator*, 2001, pp. 27-34.
- BENNETT, Tony. *The Birth of the Museum: history, theory, politics*, Oxon: Routledge, 1995.
- BILLING, Scott. A sense of place: Local history museums usually have wide-ranging collections at their disposal, so why do they often tell the same old stories, *Museums Journal*, February 2008, pp. 23-27.
- BURCAW, E. Ellis. Can history be too lively, *Museums Journal*, 1980, vol. 80, no. 1, pp. 5-7.
- BROWN, Martyn. One Museum's Drama Experience, *Museums Journal*, 1982, vol. 81, no. 4, pp.208-209.
- CAMERON, Duncan. The Museum: A Temple or the Forum, *Journal of World History*, 1972, vol. PT, pp. 189-202.
- CERE, Rinella. Moving images, *Museums Journal*, October 2005, pp. 30-33.
- COUTTS, Herbert, Helen CLARK and Elspeth KING. Telling the stories, *Museums Journal*, 1989, vol. 89, no. 8, pp. 30-32.
- DUDLEY, H. Sandra. *Museum Materialities: Objects, Engagements, Interpretation*, London: Routledge, 2009.
- GENOWAYS, H. Hugh, and Mary ANNE-ANDREI, eds. *Museum Origins: Readings in Early Museum History and Philosophy*, California: Left Coast Press, 2008.
- GIEBELHAUSEN, Michaela. *The architecture of the museum: Symbolic structure, urban contexts*, Manchester: Manchester University Press, 2003.
- GREENBERG, Reesa. *Thinking about Exhibitions*, London: Routledge, 1996.
- GRAHAM, Beryl, and Sarah COOK. *Rethinking Curating: Art after New Media*, Massachusetts: The MIT Press Cambridge, 2010.
- HEIN, E. George. *Learning in the Museum*, London: Routledge, 1998.
- HEIN, S. Hilde. *The Museum in Transition: A Philosophical Perspective*. Washington: Smithsonian Institution Press, 2000.
- HEYWOOD, Felicity. Giving voice, *Museums Journal*, December 2006, pp. 21-23.
- HEYWOOD, Felicity. Compelling narratives, *Museums Journal*, May 2007, pp. 30-33.
- HOOPER-GREENHILL, Eilean. *Museum and the Shaping of Knowledge*, London: Routledge, 1992.
- HOOPER-GREENHILL, Eilean. *Museum and Their Visitors*, London: Routledge, 1994.

- Hudson, Kenneth. *A Social History of Museums: What the Visitors Thought*, London: Macmillan, 1975.
- JOHN, David. Dealing with the past, *Museums Journal*, January 1992, pp. 24-27.
- KARP, D. Ivan, and Steven LAVINE, eds. *Exhibiting Cultures: The Poetics and Politics of Museum Display*. Washington: Smithsonian Institution Press, 1991.
- KAVANAGH, Gaynor. History and the museum: The Nostalgia Business, *Museums Journal*, 1984, vol. 83, pp. 30-32.
- KNELL, J. Simon. *Museums in the Material World*, London: Routledge, 2007.
- LONGMAN, Peter. Dead Arts and Sacred Cows, *Museums Journal*, 1987, vol. 87, no. 2, pp. 77-83.
- LUMLY, Robert. *The Museum Time-Machine: Putting Cultures on Display*, London: Routledge, 1988.
- MACDONALD, Sharon, and Gordon FYFE, eds. *Theorizing museums*, Oxford: Blackwell Publishers, 1996.
- MARSTINE, Janet. *New Museum Theory and Practice: An Introduction*, USA: Blackwell Publishing Ltd, 2006.
- M, G. Belcher. A Decade of Museum Design and Interpretation: a Personal View, *Museums Journal*, June/July 1983, vol. 83, no.1, pp. 53-60.
- MULHEARN, Deborah. Telling tales: On the sidelines for years, oral history has found its ways to the core of contemporary exhibition planning, *Museums Journal*, July 2008, pp. 29-31.
- O'REILLY, Joseph. Abstract art: The theme of this year's International Museum Day is intangible heritage. But can museums preserve culture that is not embodied in material things, *Museums Journal*, March 2004, pp. 4-5.
- PROCHNAK, M. Multimedia is the message, *Museums Journal*, 1990, vol. 8, pp. 25-27.
- SIEGEL, Jonah, ed. *The Emergence of the Modern Museum: An Anthology of Nineteenth-Century Sources*, Oxford: Oxford University Press, 2008.
- SLACK, Steve. The point of no return: The museums of Ghana are changing the way they tell the story of the transatlantic slave trade, *Museums Journal*, October 2004, pp. 28-29.
- THEA, Carolee. *On curating: interviews with ten international curators*, 1st ed. New York: Distributed Art Publishers, 2009.
- VERGO, Peter, ed. *The New Museology*, London: Peaktion Books Ltd, 1989.
- WALSH, Kevin. *The Representation of the Past: Museums and Heritage in the Post-Modern World*, London: Routledge, 1992.
- WELL, E. Stephen. *Rethinking The Museum: and Other Meditations*, Washington: Smithsonian Institution Press, 1990.

Museum and Interpretation, communication and narrative

- HOOPER-GREENHILL, Eilean. *Museums and the Interpretation of Visual Culture*, London: Routledge, 2000.
- PSARRA, Sophia. *Architecture and Narrative: The formation of space and cultural*

meaning, OX: Routledge, 2009.

PUTNAM, James. *Art and Artefact: The Museum as Medium*, revised ed. London: Thames & Hudson, 2009.

SEROTA, Nicholas. *Experience or Interpretation: The Dilemma of Museums of Modern Art*, New York: Thames & Hudson, 2000.

WITCOMB, Andrea. Postmodern Space and the Museum - the Displacement of 'public' Narratives, *Social Semiotic*, 1994, vol. 4, no. 1-2, pp. 239-261.

Museum Language

FERGUSON, Linda, Carolyn MACLULICH and Louise RAVELLI. *Meanings and messages: language Guidelines for museum exhibitions*, Sydney: Australian Museum, 1995.

KAVANAGH, Gaynor, ed. *Museum Languages: Objects and Texts*, Leicester: Leicester University Press, 1991.

HOOVER-GREENHILL, Eilean, ed. *Museum, Media, Message*, OX: Routledge, 1995.

RAVELLI, J. Louise. Making Language Accessible: Successful Text Writing for Museum Visitors, *Linguistics and Education* 8, 1996, pp. 367-387.

O'TOOLE, Michael. *The Language of Display Art*, London: Leicester University Press, 1994.

The Duveen Gallery

ROTHENBERG, Jacob. "Descensus ad terram": the acquisition and reception of the Elgin marbles, New York : Garland Publisher, 1977.

BEDFORD, M. Steven. John Russell Pope: Architect of Empire, New York: Rizzoli International Publications, 1998.

ANON. British Museum Map: colour plans and visitor information, new enlarged ed. London: The British Museum Company, 2008.

The New Acropolis Museum

ANON. *Acropolis and Museum: Brief history and tour*, 3rd ed. Athens: Acropolis Museum publication, 2011.

CASTELLANO, Aldo. A New Museum for the Acropolis, *ARCA-MILANO*, 1990, no. 43, pp. 42-51.

GALILEE, Beatrice. New Acropolis Museum, Athens, *Architects ICON*, no. 067, January 2009, pp. 60-66.

GEORGIADS, Nikos. At the same place: The Acropolis Museum, Athens. *Architectural Design*, 1998, vol. 68, no. 314, pp. 89-94.

GIARLIS, Alexander. Athens: Bernard Tschumi's New Acropolis Museum, *Architecture Today*, 2009, no. 200, pp. 16-25.

HASKARIS, Yannis. Return to the Meaning of An Ideal Museum, *Arhitektonike topothesia arhaeologia*, 1991, no. 5, pp. 4-89.

HATTON, Brian. Building a home fit for the Elgin Marbles, *Blueprint*, 1989, vol. 63, pp. 14.

HEYWOOD, Felicity. Supreme Court gives the go-ahead to construction of New

- Acropolis Museum, *Museums Journal*, 2004, vol. 104, no. 5, p. 6.
- KELLY, Peter. Athens, building on chaos, *Blueprint*, 2007, no. 222, pp. 37-57.
- LENDING, Mari. Negotiating absence: Bernard Tschumi's new Acropolis Museum in Athens, *The Journal of Architecture*, 2009, vol. 14, no. 5, pp. 567-589.
- MELHUISH, Clare. The battle over where to exhibit the Elgin Marbles, *Architects' journal*, 2002, vol. 216, no. 19-21. p. 14.
- MEYER, Ulf. Tschumi plans modern Acropolis for Athens, *World Architecture*, 2002, vol. 102, p. 11.
- MORRIS, Alan. New archaeological museum for the Acropolis, *AA Files*, 1992, no. 24, pp. 55-58.
- NICOLETTI, Manfredi. Athens: The New Acropolis Museum, *Architettura Cronache e Storia*, 1991, vol. 73, no. 3, pp. 192-196.
- NICOLETTI, Manfredi. The new Acropolis Museum, *Architecture Méditerranéenne*, 1992, no. 39, pp. 76-79.
- POL ÍGRAFA, Ediciones. *Bernard Tschumi: Acropolis Museum, Athens*, Barcelona: Novoprint, 2010.
- PHILLIPS, Stephen. Medium as message, *Building design*, 2008, no. 1848, pp. 22-23.
- PHILIPPOPOULOU, Ersi. The new Acropolis Museum: an international architectural competition, *Museum International*, 1994, vol. 46, no. 1, pp. 56-59.
- SHARP, Dennis. *Manfredi Nicoletti: Architecture, Symbol, Context*, Roma: Gangemi Editore, 2001.
- TOURNIKOUTES, Panagiotis. The new Acropolis Museum: A critical appraisal. *Design & Art in Greece*, 1992, no. 23, pp. 65-106.
- TSCHUMI, Bernard. *New Acropolis Museum*, New York: Rizzoli International Publications, 2009.
- ANON. *New Acropolis Museum Map*, Athens: The New Acropolis Museum, 2011.
- ANON. *A Day at the Acropolis Museum*, Athens: The New Acropolis Museum, 2011.
- Tschumi, Bernard. *Construction fact sheet* [online]. New Acropolis Museum Website, 2008 [viewed at 26 Oct 2011], available from: http://www.theacropolismuseum.gr/default.php?pname=PressReleases&art_id=9&cat_id=1&la=2
- Tschumi, Bernard. *Architecture fact sheet* [online]. New Acropolis Museum Website, 2008 [viewed at 26 Oct 2011], available from: http://www.theacropolismuseum.gr/default.php?pname=PressReleases&art_id=10&cat_id=1&la=2

Other Practical Museum Cases

- ALN, Balfour. The rebirth of the Neues Museum is the latest stage in the architectural and political evolution of the spreeinsel, Berlin's historic museum island, *The Architectural Review*, May 2009, vol. 225, no. 1374, pp. 82-91.
- ANON. Come on, Feel The Neuse, *Architects' journal*, 2008, vol. 227, no. 24, pp. 26-31.
- BIRCH, Amanda. Ashmolean Museum redevelopment, *Building design*, June 2009, no. 1874, pp. 16-17.

- BUXTON, Pamela. Combing history in Berlin, *Building Design*, April 1994, no. 1166, p. 6.
- BUXTON, Pamela. Seeing is believing, *RIBA Journal*, 2010, vol. 117, no. 1, pp. 22-46.
- DAVIES, Colin. Renovation: a new life for old buildings, *Architects' journal*, August 1985, vol. 182, no. 34/35, pp. 36-39.
- HEATHCOTE, Edwin. Neues Museum, Berlin, *Icon*, 2009, vol. 70, pp. 76-81.
- HOBHOUSE, Niall. Culture Crossed, *Building design*, October 2009, no. 1890, pp. 12-15.
- HOBHOUSE, Niall. Made to order, *Building design*, November 2010, no. 1941, pp. 20-21.
- LONG, Kieran. Chipperfield Completes Neues Museum Restoration, *Architects' journal*, 2009, vol. 229, no. 8, pp. 10-13.
- MEAD, Andrew. Fount of stories, *Architects' journal*, 2000, vol. 211, no. 22, pp. 34-37.
- MOORE, Rowan. Neues Museum, *Architectural Review*, May 2009, vol. 225, no. 1347, pp. 82-91.
- VOWLES, Hannah, and Glyn BANKS. The Triumph of Culture, *RIBA Journal*, 2010, vol. 117, no. 1, pp. 36-39.
- WOODMAN, Ellis. Loss adjustor, *Building design*, March 2009, no. 185, pp. 12-17.
- RUSSELL, S. James. Criticism with the Imperial War Museum North, Daniel Libeskind builds his case for a major museum destination on a budget, *Architectural record*, 2002, vol. 109, no. 10, pp. 124-131.
- SAFDIE, Moshe. Tesimonianza intensa - Holocaust History Museum Jerusalem, *ARCA-MILANO*, November 2005, no. 208, pp. 28-35.
- SAFDIE, Moshe. Holocaust History Museum at Yad Vashem, *A&U*, February 2006, no. 2 (425), pp. 34-45.
- ZANDBERG, Esther, Zvi ELHYANI. Stealing The Shoan, *Blueprint*, May 2005, no. 230, pp. 42-46.

Appendix I Museum List

	Name of the Museum	Type	Location	Year of Built	Gallery Specifically Designed For Artefacts	Chief Architect	Official Website
1	Ashmolean Museum	University museum of art and archaeology	Oxford, Uk	1683 (2009)			http://www.ashmolean.org/
2	ALBERTINA		Vienna, Austria	1745			http://www.albertina.at/jart/prj3/albertina/main.jart?rel=en&reserve-mode=reserve
3	British Museum	Human history and culture	London, UK	1753	Duveen Gallery (1938,destroyed during the WWII, rebuilt in 1962)		http://www.britishmuseum.org/
4	Louvre Museum	Art	Paris, Frence	1793			http://www.louvre.fr/llv/commun/home.jsp?bmLocale=en
5	French Natural History Museum	Natural History	Paris, France	1793			http://www.britishmuseum.org/
6	Mus ée national des Monuments Français	Museum of French Monuments	Paris, France	1795			
7	Altes Museum	Ancient Greek and Roman Artefacts (Rebuilt)	Berlin, Germany	1823-1830		Karl Friedrich Schinkel	
8	National Archaeological Museum, Athens (The Central Museum)	National Museum	Athens, Greece	1829		Ludwig Lange and Panagi Kalkos	http://www.namuseum.gr/
9	Sir John Soane's Museum	Architecture Museum	London, UK	1833			http://www.soane.org/
10	Oxford University Museum of Natural History	University museum of natural history	Oxford, UK	1850			http://www.oum.ox.ac.uk/

11	Victoria & Albert Museum (The Museum of Manufactures; The South Kensington Museum)	Museum of decorative arts and design	London, UK	1852		http://www.vam.ac.uk/
12	Albany Museum (‘Museum today consists of a family of seven buildings which includes the Natural Sciences Museum, the History Museum, the Observatory Museum, Fort Selwyn, the Old Provost military prison, Drostdy Arch and the Old Priest’s House which is leased to the National English Literary Museum’)	Natural History and Geology	Grahamstown, Africa	1855	<p>Observatory Museum (‘The Observatory is a unique multi-storeyed 19th century Victorian shop and home which is now a museum. This house had a place in the identification of the first diamond that was found in South Africa, and a display on the ground floor tells this story. Its connection with the identification of the Eureka in 1867 prompted De Beers Consolidated Mines Ltd. to purchase and restore the Observatory in 1980-82 to commemorate the beginning of the diamond industry in South Africa.</p> <p>A feature of the Observatory is a special exhibition focusing on Dr William G. Atherstone and the five other main participants in the identification of the first diamond discovered in South Africa in 1867’.) http://www.ru.ac.za/static/affiliates/am/exhib.htm</p>	http://www.ru.ac.za/static/affiliates/am/index.html
13	National Portrait Gallery	London, UK		1856		http://www.npg.org.uk/
14	The Science Museum	Science museum	London, UK	1857	<p>Energy Hall (The Energy Hall showcases an unparalleled collection of historic full-size engines and models. Displays range from the oldest surviving and unaltered atmospheric engine to rotative engines built by James Watt, high-pressure engines of the type pioneered by Richard Trevithick and a steam turbine designed and built by Charles Parsons.</p> <p>The gallery uses working models and full-size engines, animations, interactive touch screens and much more to tell the story of steam power, its inventors and users, and the extraordinary part they played in shaping the modern world.) http://www.sciencemuseum.org.uk/visitmuseum/galleries/energy_hall.aspx</p>	http://www.sciencemuseum.org.uk/

15	Manchester Museum	University museum of archaeology, natural history and anthropology	Manchester, UK	1867	<p>A scrap of Roman amphora excavated in Manchester in 1978 in a building that went out of use in c.185AD, inscribed with a word-square which is probably the earliest evidence for Christianity in Britain.</p> <p>http://www.museum.manchester.ac.uk/collection/archaeology/</p>	http://www.museum.manchester.ac.uk/
16	American Museum of Natural History	Natural History	New York, USA	1869	<p>Anne and Bernard Spitzer Hall of Human Origins (The Bernard and Anne Spitzer Hall of Human Origins, formerly The Hall of Human Biology and Evolution, opened on February 10, 2007.[12] Originally known under the name "Hall of the Age of Man", at the time of its original opening in 1921 it was the only major exhibit in the United States to present an in-depth investigation of human evolution.[13] The displays traced the story of Homo sapiens, illuminated the path of human evolution and examined the origins of human creativity.)</p> <p>http://en.wikipedia.org/wiki/American_Museum_of_Natural_History</p>	http://www.amnh.org/
17	Metropolitan Museum of Art	Art	New York, USA	1870		http://www.metmuseum.org/
18	Natural History Museum	Natural History	London, UK	1881	<p>The Vaulted Central Hall (The Museum's Central Hall forms a fantastic backdrop to some of the highlights of the Museum's collection including a Diplodocus skeleton and a 1,300-year-old giant sequoia.)</p> <p>http://www.nhm.ac.uk/visit-us/galleries/green-zone/central-hall/index.html</p>	http://www.nhm.ac.uk/
19	Canadian War Museum	National Museum	Ontario, Canada	1880		http://www.warmuseum.ca/cwm/home/home
20	Pitt River Museum	Ethnographic and Archaeological	Oxford, UK	1884		http://www.prm.ox.ac.uk/

21	Museum of Natural History of (ViennaNaturhistorisches Museum), including Imperial Natural History Museum	Natural History	Vienna, Austria	(1872)1889		http://www.nhm-wien.ac.at/
22	Istanbul Archaeology Museums (Archaeological Museum; Museum of the Ancient Orient; Museum of Islamic Art)	Archaeology Museum	Istanbul, Turkey	1891		
23	Kunsthistorisches Museum (Museum of Art History)	Art	Vienna, Austria	1891		http://www.khm.at/en/khm-home/
					<p>The Hall of Architecture</p> <p>(with its collection of over 140 plaster casts of architectural masterpieces from the past, opened in 1907.) (Guided by the view that a replica of a masterpiece was superior to a mediocre original, collectors from the time of Rome’s first emperor until the early 20th century amassed great plaster-cast collections of recognized masterworks.)</p> <p>http://web.cmoa.org/?page_id=12</p> <p>(The West Portal of Saint-Gilles-du-Gard, paid for by Andrew Carnegie on the recommendation of art experts, is one of a kind, and is arguably the largest architectural cast ever made.)</p>	
24	Carnegie Museum of Art	Art	Pittsburgh, USA	1895	<p>http://en.wikipedia.org/wiki/Carnegie_Museum_of_Art</p> <p>Hall of Sculpture</p> <p>(The Hall of Sculpture was originally designed to house Carnegie Museum of Art’s collection of reproduction Egyptian, Near Eastern, Greek, and Roman sculptures. When the Hall opened in 1907, a majority of these 69 plaster casts occupied the ground floor.</p> <p>The architects of the Hall of Sculpture chose to model their room on the Parthenon’s cella, or inner sanctuary, which was distinguished by a double tier of columns (the cella of the Parthenon had to accommodate a 40-foot statue of Athena).</p> <p>http://web.cmoa.org/?page_id=13</p>	http://www.cmoa.org/

25	M.H. de Young Memorial Museum	Art	San Francisco, USA	1895		Jacques Herzog, Pierre de Meuron and Fong + Chan	http://www.famsf.org/deyoung/
26	Carnegie Museum of Natural History	Natural History	Pittsburgh, USA	1896			http://www.carnegiemnh.org/
27	The Pushkin Museum of Fine Arts	Art	Moscow, Russia	1898-1912		Roman Klein and Vladimir Shukhov	http://www.museum.ru/gmii/defengl.htm
28	Royal Museum for Central Africa	Ethnographical and Natural History	Brussels, Belgium	1897			http://www.africamuseum.be/museum
29	Bode Museum	Sculptures, Byzantine Art, and Coins and Medals	Berlin, Germany	1904		Ernst von Ihne	
30	Oceanographic Museum		Monaco-Ville, Monaco	1910			
31	Imperial War Museum London	War Museum	London, UK	1917			http://london.iwm.org.uk/
32	The Palace Museum	National Museum	Beijing, China	1925			http://www.dpm.org.cn/index1280800.html
33	Ulster Museum	National Museum	Belfast, Northern Ireland	1929			http://www.nmni.com/um
34	Pergamon Museum	Art and Archaeology	Berlin, Germany	1910-1930	Mshatta facade (which originates from an unfinished early Islamic desert palace located south of Amman in present-day Jordan. It was a gift from the Ottoman Sultan Abdul Hamid II to Emperor Wilhelm II of Germany. Parts of the eastern portion of the facade and the ruins of the structure of which it formed a part remain in Jordan.) http://en.wikipedia.org/wiki/Pergamon_Museum	Alfred Messel and Ludwig Hoffmann	http://www.smb.museum/smb/standorte/index.php?lang=en&p=2&objID=27&n=1&r=4&lang=en

35	Nevada Museum of Art	Art	Nevada, USA	1931	Will Bruder	http://www.nevadaart.org/
36	Whitney Museum of American Modern Art	Art	New York, USA	1931	Renzo Piano	http://www.whitney.org/
37	San Francisco Museum of Modern Art	Art	San Francisco, USA	1935	Mario Botta	http://www.sfmoma.org/
38	Armagh County Museum	National Museum	Armagh, Northern Ireland	1937		http://www.nmni.com/acm
39	Third Man Museum	Biography Museum	Vienna, Austria	1948		http://www.3mpc.net/englsamml.htm
40	Birmingham Science Museum	Science Museum	Birmingham, UK	1951		http://www.thinktank.ac/
41	The Utah Museum of Fine Arts	Art	Salt Lake City, Utah	1951	Machado and Silveti Associates	http://www.umfa.utah.edu/
42	Hiroshima Peace Memorial Museum	Art	Hiroshima, Japan	1955	Kenzo Tange	http://www.pcf.city.hiroshima.jp/top_e.html
43	The Old Operating Museum	Medical Museum	London, UK	1957		http://www.thegarret.org.uk/
44	National Museum of China	National Museum	Beijing, China	1959		http://www.chnmuseum.cn/
45	Anne Frank House	Biography Museum	Amsterdam, Netherlands	1960		http://www.annefrank.org/content.asp?pid=3&lid=2/
46	Indiana Railway Museum	Railway museum	Indiana, USA	1961		

47	Ulster Folk and Transport Museum	National Museum	Cultra, Northern Ireland	1967		http://www.nmni.com/uftm
48	Cable Car Museum	Working Museum	San Francisco, USA	1967		
49	Museum of Contemporary Art, Chicago	Art	Chicago, USA	1967(1996)		http://www.mcachicago.org/
50	Strasbourg Museum of Modern and Contemporary Art	Art	Strasbourg, France	1973	Adrien Fainsilber	http://mamac.be/
51	Yale Centre for British Art	Art	New York, USA	1974	Louis I. Kahn	http://ycba.yale.edu/index.asp
52	National Railway Museum	Rail Transport Museum	Leeman Road, York, North Yorkshire, England, UK	1975		http://www.nrm.org.uk/
53	Museum of London			1976		http://www.museumoflondon.org.uk/English /
54	National Air and Space Museum (National Mall Building)	Military Museum	Washington D.C.,USA	1976		http://www.nasm.si.edu/
55	French Railway Museum	Railway museum	Alsace, France	1976		http://www.citedutrain.com/en/train/
56	Ulster American Folk Park	Local Museum	Castletown, Northern Ireland	1976		http://www.nmni.com/uafp
57	Centre George Pompidou	Art	Paris, France	1977	Renzo Piano, Richard Rogers and Gianfranco Franchini, assisted by Ove Arup & Partners	http://www.centrepompidou.fr/

					Operations Block (This block, open to the public, houses the wartime operations room from which Duxford's aircraft were directed)	
58	Imperial War Museum Duxford	War Museum	Duxford, UK	1977	http://en.wikipedia.org/wiki/Imperial_War_Museum_Duxford#cite_note-DUsite-39	http://duxford.iwm.org.uk/
59	Wimbledon Lawn Tennis Museum	Tennis Museum	UK	1977		http://aeltc.wimbledon.org/en_GB/about/museum/index.html
60	HMS Belfast	Museum Ship	London, UK	1978		http://hmsbelfast.iwm.org.uk/
61	National Motor Museum, Beaulieu	Automobile Museum	Beaulieu, UK	1978		http://www.nationalmotormuseum.org.uk/
62	Hedmark Museum (The Medieval Museum)	Reginal (Local) Museum	Hamar, Norway	1979	Sverre Fehn	http://www.hedmarksmuseet.no/
63	The Science Museum at Wroughton	Museum store	Wroughton, near Swindon, Wiltshire, England, UK	1979		http://www.sciencemuseum.org.uk/about_us/about_the_museum/science_museum_at_wroughton.aspx
64	London Transport Museum	Transport Museum	London, UK	1980		http://www.ltmuseum.co.uk/
65	Car Museum (National Automobile Museum)	Automobile Museum	Alsace, France	1982		http://www.collection-schlumpf.com/en/schlumpf/
66	German Museum of Technology		Berlin, Germany	1982		http://www.sdtb.de/Englisch.55.0.html
67	National Media Museum (National Museum of Photography, Film and Television)		Bradford, West Yorkshire, England,UK	1983		http://www.nationalmediamuseum.org.uk/
68	Museum for African Art		New York, USA	1984		http://www.africanart.org/

69	Churchill War Rooms	War Museum	London,UK	1984			http://cwr.iwm.org.uk/
70	Royal Tyrrell Museum of Palaeontology	Palaeontological Museum	Alberta, Canada	1985			http://www.tyrrellmuseum.com/index.htm
71	Zigong Dinosaur Museum	Dinosaur Museum	Zigong, China	1987			
72	Canadian Museum of Civilisation (Canadian Postal Museum,Canadian Children's Museum, Virtual Museum of New France)	Human and Cultural history	Gatineau, Canada	1989 (1856)	<p>Tsimshian House</p> <p>The area of the Grand Hall exhibition occupied by the Tsimshian house represents four different peoples. The coastal waterways opposite to and north of the Queen Charlotte Islands, the waterways just north of Haisla territory and the Nass and Skeena river valleys, and the adjacent lands constitute a huge region which is home to those four peoples: the Nisga'a of the Nass River and the adjacent coast; the Gitksan of the upper Skeena River and its tributaries; the Coast Tsimshian of Port Simpson and the coastal waterways to the south, including the initial portion of the Skeena River; and the Southern Tsimshian.</p> <p>The Tsimshian house represents a style of house which stood in Tsimshian villages in the mid-1800s. In construction, it is similar to Haida houses, with a structure of massive cedar posts and beams and removable vertical wall boards, set into grooved timbers top and bottom. The houses of high-ranking people among both the Tsimshian and Haida had central fire pits, with broad steps leading down from the main floor. The steps were wide enough to accommodate meal preparation and other domestic activities.</p> <p>http://www.civilization.ca/cmc/exhibitions/aborig/grand/ghhe1eng.shtml</p>	Douglas Cardinal	http://www.civilization.ca/cmc/home/cmc-home
73	Design Museum	Museum of Modern Design	London, UK	1989			http://designmuseum.org/

74	Hammer Museum	Art	Los Angeles, USA	1990		
75	Kunst Haus Wien	Art	Vienna, Austria	1991		http://www.kunsthawien.com/index_en.html
76	Australian National Maritime Museum	Maritime Museum	New South Wales, Australia	1991		http://www.anmm.gov.au/site/page.cfm
77	Shannxi History Museum	History Museum	Xi'an, China	1991		http://www.sxhm.com/
78	Kunsthal	Art	Rotterdam, Netherland	1992	Rem Koolhaas	http://www.kunsthal.nl/en-2-Kunsthal_Rotterdam.html
79	Peace Museum, Bradford	Peace Museum (History Museum)	Bradford, UK	1992		http://www.peacemuseum.org.uk/
80	United States Holocaust Memorial Museum	Holocaust Museum	Washington, D.C,USA	1993		http://www.ushmm.org/
81	Cartier Foundation Paris	Art	Paris, France	1994	Jean Nouvel, Architect with Emanuel Cattani	http://fondation.cartier.com/
82	Chikatsu-Asuka Historical Museum		Osaka,Japan	1994		http://chikatsu.mediajoy.com/index_e.html
83	The Andy Warhol Museum	Biography Museum (Art Museum)	Pittsburgh, Pennsylvania, USA	1994		http://www.warhol.org/
84	Barcelona Museum of Contemporary Art	Art		1995	Richard Mier & Parteners	http://www.macba.cat/controller.php
85	ARKEN Museum of Modern Art	Art	Copenhagen,Den mark	1996	Søren Robert Lund	http://www.arken.dk/composite-6.htm

86	Robben Island Museum	Site and Living Museum	Cape Town, Africa	1997		http://www.robben-island.org.za/
87	Skyscraper Museum		New York,USA	1997 (2004)	Roger Duffy Skidmore, Owings & Merrill (SOM)	http://www.skyscraper.org/home_flash.htm
88	National Museum Scotland	History and Cultural Museum	Edinburgh, UK	1998	Benson & Forsyth	http://www.nms.ac.uk/
89	The Norwegian Petroleum Museum	Industrial Museum	Stavanger, Norway	1999	Lunde & L øvseth Arkitekter AS	http://www.norskolje.museum.no/index.asp? iLangId=1
90	Tate Modern	Art		2000		http://www.tate.org.uk/modern/
91	Walsall Art Gallery	Art	Walsall, UK	2000		http://www.thenewartgallerywalsall.org.uk/
92	Fukui Prefectural Dinosaur Museum	Dinosaur Museum	Fukui Prefecture, Japan	2000		http://www.dinosaur.pref.fukui.jp/en/
93	Leopold Museum	Art	Vienna, Austria	2001		http://www.leopoldmuseum.org/index_en.ht ml
94	National Cinema Museum	Movie Museum	Turin, Italy	2000 (1889)		
95	Jewish Museum, Berlin	History Museum	Berlin, Germany	2001	Daniel Liberskind	http://www.jmberlin.de/main/EN/homepage- EN.php
96	American Folk Art Museum		New York, USA	2001(1961)	Tod Williams Billie Tsien	http://www.folkartmuseum.org/
97	National Maritime Museum Cornwall		Cornwall, UK	2002	M.J.Long	http://www.nmmc.co.uk/

98	Volcano Theme and Leisure Park		Auvergne, France	2002		Hans Hollein	http://www.vulcania.com/en/the-park/architecture.html
99	Imperial War Museum North		Manchester, UK	2002			http://north.iwm.org.uk/
100	Norwegian Glacier Museum (Norsk Bremuseum)		Fjærland, Norway	2002		Sverre Fehn	http://www.climatechannel.no/
101	The National Museum of Art, Architecture and Design (The Norwegian Museum of Architecture, The Museum of Decorative Arts and Design, The Museum of Contemporary Art and the National Gallery)		Oslo, Norway	2003			http://www.nationalmuseum.no/
102	Vesunna Gallo-Roman Museum	Archaeology Museum	P érigueux, France	2003	"The Museum houses the remains of a grand Gallo-Roman residence, adorned with painted plaster work, known as Domus de V ésone."	Jean Nouvel	
103	Peabody Essex Museum (Extension)	Massachusetts,USA		2003(1799)		Moshe Safdie	http://www.pem.org/
104	Shildon Locomotion Museum	Railway museum; Transport museum; Collection Museum; Children's museum; Open-air museum	Shildon, County Durham, UK	2004			
105	Museum of World Culture		Gothenburg, Sweden	2004		Brisac Gonzalez Architects	http://www.varldskulturmuseet.se/smvk/jsp/polopoly.jsp?d=126&l=en_US
106	The New Holocaust History Museum, Yad Vashem		Jerusalem, Israel	2005 (1950s)		Moshe Safdie	http://www1.yadvashem.org/new_museum/overview.html

107	Titanic Museum (Branson, Missouri)		Branson, Missouri, USA	1905-6-28			http://www.titanicattraction.com/
108	Museo Nacional Centro de Arte Reina Sofía	Art	Madrid, Spain	2005(1992)		Jean Nouvel	http://www.museoreinasofia.es/index_en.html
109	New Seoul National University Museum of Art (MoA)	Art	Seoul, Korea	2005		Rem Koolhaas (OMA)	http://www.snumoa.org/
110	The Grand Duke Jean Museum of Modern Art		Luxembourg	2006		Pei Cobb Freed & Partners, LLP	http://www.mudam.lu/en/accueil/
111	Museum Quai Branly	Art and Culture	Paris, France	2006		Jean Nouvel	http://www.quaibranly.fr/index.php?id=accueil&L=1/
112	Museo del Prado (Prado Museum Extention)	Art	Madrid, Spain	2006(1819)		Rafael Moneo	http://www.museodelprado.es/en/
113	Gallo Romeins Museum	Archaeology Museum	Tongeren Belgium	2006(1954)		De Gregorio & Partners	http://www.galloromeinsmuseum.be/
114	Suzhou Museum		Suzhou, China	2006 (1960)		leoh Ming Pei	http://www.szmuseum.com/
115	Ara Pacis Museum		Rome, Italy	2006		Richard Meier & Partners	http://en.arapacis.it/
116	Mercedes-Benz Museum		Stuttgart, Germany	2006		UNStudio	http://www.mercedes-benz-classic.com/content/classic/mpc/mpc_classic_website/en/mpc_home/mbc/home/museum/overview_museum.html?lang=en
117	New Museum (of Contemporary Art)	Art	New York, NY	2007		SANAA	http://www.newmuseum.org/
118	Grand Rapids Art Museum	Art	Grand Rapids, Michigan	2007		wHY Architecture	http://www.artmuseumgr.org/

119	Nestlé Chocolate Museum		Mexico City, Mexico	2007			
120	Petter Dass Museum		Alstahaug, Norway	2007		Snøhetta	http://www.petterdass.no/ipub/pages/in_english.php
121	Museum of French Monuments	Art	Paris, France	2007	Gallery of modern and contemporary architecture (at the end of the visit, the recreation to scale of an apartment from the Cité Radieuse of Le Corbusier in Marseille.) http://www.citechaillot.fr/musee/gallery/gallery_of_modern_and_contemporary_architecture.php		http://www.citechaillot.fr/musee.php
122	Archaeological Museum of Chania	Archaeology Museum	Chania, Crete, Greece	2008(1962)		Theofanis Bobotis	
123	The New Acropolis Museum	Archaeology Museum	Athens, Greece	2008	The Parthenon Gallery	Bernard Tschumi Architects	http://www.theacropolismuseum.gr/?pname=Home&la=2
124	Capital Museum		Beijing, China	2008		Cui Kai Studio	
125	Newseum	News and Journalism Museum	Washington, D.C., USA	2008 (1997)	The Berlin Wall was strong enough to stop a tank, but it couldn't stop news from getting into East Germany by word of mouth, smuggled messages or radio and television. This gallery tells the story of how news and information helped topple a closed and oppressive society. The exhibit contains the largest display of portions of the original wall outside of Germany. It features eight 12-foot-high concrete sections of wall, each weighing about three tons. A three-story East German guard tower that loomed near Checkpoint Charlie — Berlin's best-known East-West crossing — stands nearby.	Polshek Partnership Architects	http://www.newmuseum.org/
126	Brooklyn Children's Museum	Children's Museum	New York, USA	2008 (1899)		Rafael Viñoly Architects	http://www.brooklynkids.org/

127	Neues Museum	Egyptian and Prehistory and Early History collections	Berlin, Germany	2009 (1855)	Friedrich August Stüler;David Chipperfield	http://www.neues-museum.de/index.php
128	Hergé Museum	Art	Louvain-la-Neuve, Belgium	2009	Christian de Portzamparc	http://www.museeherge.com/
129	Ashmolean Museum	University museum of art and archaeology	Oxford, UK	2009	Architect Rick Mather & Metaphor Design	http://www.ashmolean.org/
130	Queens Museum of Art (Expansion)	Art	Queens, New York	2012	Eric Owen Moss Architects	http://www.queensmuseum.org/