

Contents

1	Introducing Virtual Travel	1
1.1	Virtual Environments	1
1.2	Moving Past the Picture Frame	3
1.3	Being Not-There May Be More Achievable	4
1.4	Being Not-There May Safeguard the Place	5
1.5	Share by Being Not-There	7
1.6	The Implications for Virtual Travel	8
1.7	Learning via Virtual Travel	9
1.8	The Thorny Issue of Engagement	10
1.9	Four Major Problems	11
1.10	Virtual Reality and Cultural Significance	13
	References	14
2	Virtual Environments	17
2.1	Technological Limitations	17
2.2	Lack of Widely Distributed Technology	17
2.3	Size, Speed and Rendering Issues	18
2.4	Lack of Meaningful Content	18
2.5	We Experience More than Tangible Objects	19
2.6	The World Is More than Visual Stimuli	19
2.7	Different People See Different Things	20
2.8	Personalization Is Missing	21
2.9	Lack of Contextual Evaluation	21
2.10	Summary of Implications for Virtual Environments	23
	References	24
3	Virtual Places	27
3.1	Place in a Virtual Space	27
3.2	Experiential Types of Place	29
3.2.1	Place as Unique Experience	29
3.2.2	Sublime Places of Terror and Awe	30
3.2.3	Evocative and Atmospheric Place	30

3.2.4	Place as Stage and Playground.....	31
3.2.5	Place as Trace and Palimpsest.....	33
3.3	Requirements for Creating a Sense of Place.....	34
3.3.1	Place Requires Embodiment.....	34
3.3.2	Place Requires Paths and Centers.....	36
3.3.3	Response to Place Requires Ongoing Feedback.....	36
3.3.4	Place Requires Social 'Embeddedness'.....	37
3.3.5	Place Is Mark-Able.....	38
3.4	Evoking Place via Arts and Sciences.....	39
3.4.1	Architecture.....	39
3.4.2	Art and Artifacts.....	41
3.4.3	Literature.....	42
3.4.4	Film.....	43
3.4.5	Cultural Geography in Place and Culture.....	43
3.5	Cyberspace Critics and Criteria.....	44
3.5.1	Cyberspaces Lack Limits.....	46
3.5.2	Cyberspaces Lack 'Play' Through Objects.....	48
3.5.3	Cyberspaces Lack Life History.....	48
3.6	Cyberspace Concepts and Terminology.....	49
3.6.1	Suggestions for Creating Cyberplace.....	50
3.7	Three Types of Virtual Environments.....	50
3.7.1	Inert 'Explorative' Environments.....	51
3.7.2	Activity-Based Environments.....	53
3.7.3	Cultural or 'Hermeneutic' Environments.....	53
3.8	Matching Virtual Environments and Technologies.....	55
3.9	Terms.....	56
3.10	Summary of Place Theory.....	58
	References.....	60
4	Cultural and Social Presence.....	63
4.1	Why Photorealism Does Not Convey Cultural Significance.....	63
4.1.1	Virtual Heritage Is Not Realism.....	63
4.1.2	Phobic Triggers and Experiential Realism.....	65
4.1.3	Archaeology and History Is Not Set in Concrete.....	67
4.2	Confusion over Cultural Presence.....	69
4.3	What Is Culture?.....	69
4.3.1	What Is a Culturally Significant Place?.....	70
4.3.2	How Culture Is Learnt.....	71
4.3.3	Social and Cultural Presence.....	72
4.4	Hermeneutic Richness, Cultural Agency.....	75
4.5	Culture in Virtual Worlds.....	76
4.6	Useful Cultural Presence.....	76
4.7	Summary of Cultural Presence Theory.....	78
	References.....	80

5	Game–Style Interaction	83
5.1	Defining Games	83
5.2	Defining Game–Style Interaction	84
5.2.1	Useful Features of Games	85
5.2.2	Engaging Features of Games	87
5.3	Case Study: Heretic II	89
5.4	Dynamic Places	90
5.4.1	Dynamic Place Design: Unreal Palenque and Xibalba	91
5.4.2	Racing in a Tent: Spatial and Haptic Immersion	94
5.5	Constrained Tasks and Goals	94
5.5.1	Interaction Modes in Palenque Using Adobe Atmosphere	95
5.5.2	Constrained Tasks in Journey to the West	100
5.6	Social Agency: Avatars Agents and Actors	101
5.6.1	Agency in a Marco Polo Game	102
5.7	Artifacts	104
5.7.1	Mapping to Aid Navigation for Egyptian Mythology	108
5.7.2	Mapping Through Drawing	110
5.8	Game-Based Learning	111
5.8.1	Procedural Versus Prescriptive Learning	111
5.9	Game Genres and Cultural Learning	116
5.9.1	Snakes and Ladders	116
5.9.2	Different Perspectives per Player	117
5.9.3	Role Playing	117
5.9.4	The Spy Game	118
5.10	Issues of Time: Interaction Versus Historical Authenticity	118
5.10.1	Ancillary Non-celebrity Characters	119
5.10.2	Autonomous Action, Immutable Results	119
5.10.3	Groundhog Day	119
5.10.4	Possible Worlds	119
5.10.5	Diary of Emotional Development	120
5.10.6	Surfing Memetic Drift	120
5.10.7	Augment History with Real World	120
5.10.8	Augmented Cultural Exchange	121
5.10.9	Dynamic Places	121
5.11	Game-Based Evaluation	121
5.12	Summary of Games–Style Interaction	124
	References	126
6	Playing with the Past	129
6.1	What Is Virtual Heritage?	129
6.2	The Problem of Culture	131
6.3	Virtual Heritage Case Studies	132

6.3.1	Art History in Online Worlds: Santa Maria, Italy.....	132
6.3.2	Virtual Forbidden City, China.....	133
6.3.3	Dordrecht Monastery, The Netherlands.....	134
6.3.4	Urban Design and Virtual Sambor, Cambodia	135
6.3.5	FAS Palace, Mesopotamia	137
6.3.6	Culture and History Inside a Game: Palestine and Italy	139
6.3.7	Virtual Egyptian Temple.....	142
6.3.8	Dome Visualization: Mawson's Hut, Antarctica	144
6.3.9	Heritage Tour: Macquarie Lighthouse, Australia	145
6.3.10	Panoramic Explorations: PLACE-Hampi, India.....	147
6.3.11	Performance and Archaeology: Spaces of Mjalnar, Malta	148
6.4	Summary	151
	References	152
7	Augmenting the Present With the Past	157
7.1	What Is Augmented Reality?	157
7.2	Blends of Augmented Reality and Augmented Virtuality	160
7.2.1	Inserted Walk-About Reality, University of South Australia.....	160
7.2.2	Overlaid Walk-About Reality, Columbia University	160
7.2.3	Bubbled Reality Example 3: Mawson's Huts, Antarctica.....	163
7.3	Other Types of Mixed Reality	164
7.3.1	Data-Streamed Virtual Reality.....	164
7.3.2	Augmented Virtuality	165
7.3.3	Audio Augmented Reality	167
7.3.4	Participant and Audience-Augmented Virtuality.....	168
7.4	Augmented Reality and Virtual Heritage.....	171
7.5	Summary	172
	References	174
8	Evaluating Virtual Heritage.....	177
8.1	Testing That Which Is Not Yet Fully Tested.....	177
8.2	Evaluating Cultural Learning	178
8.3	Virtual Heritage Evaluation.....	179
8.4	What Types of Evaluation Are There?.....	179
8.4.1	Expert Testing	179
8.4.2	Content and Media Comparison Studies	180
8.4.3	Physiological Testing	180
8.4.4	Task Performance	180
8.4.5	Surveys/Questionnaires	181
8.4.6	Ethnographic Evaluation.....	182
8.5	Evaluating Virtual Heritage Environments	182

8.5.1	Task Performance and Game Evaluation	184
8.5.2	Statistical Methods Suitable for Virtual Heritage Projects	185
8.6	Evaluation Case Study: Palenque	190
8.6.1	Pilot Study	191
8.6.2	Evaluation	191
8.6.3	Evaluation Questions	192
8.6.4	Schedule of Evaluation	193
8.6.5	Observations	193
8.7	Summary of Evaluation for Virtual Heritage	194
	References	196
9	Conclusion	201
9.1	Cultural Understanding Through Digital Interactivity	201
9.2	Future Research	207
	References	209
	Index	211



<http://www.springer.com/978-1-84996-500-2>

Playing with the Past

Champion, E.

2011, XXII, 214 p., Hardcover

ISBN: 978-1-84996-500-2