

Somatic solidarity, Magical Realism and Animating Popular Gods:

Place-Hampi “where intensities are felt”

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Abstract

Place-Hampi is an embodied theatre of participation in the drama of Hindu mythology focused at the most significant archaeological, historical and sacred locations of the World Heritage site Vijayanagara (Hampi), South India. The research described in this paper examines a history of several scopic regimes observable in Indian aesthetic traditions (principally those associated with chromolithography) and their socio-cultural implications—to articulate the somatic engagement inherent to encounters with the mythological deities in image form. Information derived from the examination of diverse scopic regimes has been used to guide the decisions in symbolic logic and high level cognitive programming of computer graphic characters that help co-evolve the narrative engagement between intangible heritage of ‘place’ and participants. Place-Hampi investigates experiences of encounter—as tangible knowledge that has implications for immersive heritage visualizations for diverse cultural audiences.

Keywords --- virtual heritage, Indian aesthetics, magical realism, stereoscopic panoramas, augmented reality, co-evolutionary narrative, chromolithography, cognitive programming, symbolic logic, intangible heritage

1. Introduction

In Place-Hampi Hindu mythology focused at the most significant archaeological, historical and sacred locations of the World Heritage site Vijayanagara Hampi, South India, dramatically unfolds. [1] Viewers explore a virtual landscape of panoramic locations enlivened by animated mythological events in this interactive installation. These events reveal the folkloric imagination of contemporary pilgrims active at the temple complex. Place-Hampi is an embodied theatre of participation comprised of high resolution augmented stereoscopic panoramas and surrounded by a rich aural field, and permits an unprecedented level of viewer co-presence in a narrative-discovery of a cultural landscape.

Interpretive virtual heritage (IVH) has begun to critically examine the meaning of representations of space and place in its endeavours to facilitate dynamic inter-actor participation and cultural learning. IVH practitioners must resolve a complex mix of HCI issues to generate for participants the hermeneutic, symbolic and epistemological meanings found in readings of real archaeological, historic and cultural landscapes and in the narratives embedded there. One avenue of academic research that helps resolve these tensions is related to the concept of (tele)presence, commonly referred to as a sense of 'being there' in a virtual environment and more broadly defined as an illusion of nonmediation in which users of any technology overlook the technology's role in their experience.

Presence¹ is an established body of inquiry fundamental to the way in which Place-Hampi is constructed. Presence flourishes within immersive environments in which the behavior of virtual characters can evolve or “co-evolve” interactively by making intelligent reference to the actions of viewing participants in real time. [3; 4] When co-evolving systems of interaction are applied to the relationships between viewers and computer generated (CG) characters unique interactive relationships are formed in dramatic and culturally distinctive ways. Place-Hampi endeavors to facilitate dynamic inter-actor participation and cultural learning and, the creation of presence, in virtual heritage. The research is presented in two stages as Demonstrator One and Demonstrator Two described below.

Through the nature of immersion and interactivity, Place-Hampi also promotes a somatic resonance that reinstates a level of engagement informed by aspects of Indian cultural and religious life. Thus the aesthetic discourse of Indian religious visual arts and inter-ocular

¹ Presence research is an established body of inquiry for virtual environments e.g. The International Society for Presence Research (ISPR <<http://www.temple.edu/ispr/>> and Presence and Interaction in Mixed-Reality Environments (Presence II) <<http://cordis.europa.eu/ist/fet/pr.htm>>.

scopic regimes² of colonial and post colonial India informs an understanding of what Place-Hampi offers. To demonstrate this the analysis below extrapolates from the history of predominantly chromolithography to validate the use of ‘magical realism’ (for example) as a formal aesthetic of choice that best represents the intangible aspects of ‘place’ and the religious experiences active in the landscape of Vijayanagara in contemporary times.

Examining Indian interocular scopic regimes also helps define a lineage for Place-Hampi juxtaposed with Indian aesthetic traditions. The works’ augmented real world landscapes overlaid with mythical, animated and magically real characters recalls the ‘conversation’ that takes place between the idioms of chromolithography (exemplified by the Press of Ravi Varma for example), theatre, photography, film observable in the late nineteenth and early twentieth centuries in India, followed by television and most recently the animation industry. Place-Hampi, in this context, provides a unique level of visitor co-presence in the history of interpretation and engagement with representations of the mythological landscape.

2. Place-Hampi Demonstrators

A large interdisciplinary team of professionals including south Indian art historical and archaeological scholars, Indian classical Carnatic composers and Indian artists and animators, classical Indian dancers, computer engineers, and museum and media arts specialists, contributed to Place-Hampi. The diversity of the team ensured a sympathetic ‘reading’ of place in iconographic, historical and contemporary cultural terms.

The field capture techniques included stereoscopic panoramas and ambisonic sound recordings, augmented with compositions and stereo animations, building on earlier works by the author. [5; 6] This locally sourced and processed high fidelity material gives the audience the impression that they are physically present at Vijayanagara, and creates a perceptual continuity between the real and virtual spaces.

Place-Hampi Demonstrator One (Figure 1) builds on the interactive cinema paradigm launched by Jeffrey Shaw in 1995³. Its central feature is a motorised platform that allows the viewer to interactively rotate a projected image within a 9-meter diameter cylindrical screen and navigate a three-dimensional environment of panoramic locations at Hampi. These stereoscopic photographic panoramas are augmented with pre-rendered animations

of Hindu Gods. The single-user interface allows the viewers to control their forward, backward and rotational movements through the virtual scene as well as the rotation of the image. This mobile exposure of the 360-degree sceneries also causes the audience to walk around the viewing space, thereby synesthetically conjoining their bodily movements to the stereoscopically perceived Hampi world to create a heightened sense of presence. Place-Hampi Demonstrator One premiered at the Opera house in Lille (October 2006), for a three-month arts and cultural festival celebrating France-India year. The work received critical acclaim from diverse audiences comprised of Bollywood film stars, Indian academics, artists and art critics and, a mixture of European festival goers and critics. The popularity of Demonstrator One across this varied group has resulted in a touring program to major museums and festivals for the next two years (2007-2009) in Europe, Asia, and Australia



Figure 1 Place-Hampi Demonstrator One
(© Kenderdine & Shaw, 2006)

Place-Hampi Demonstrator Two (Figure 2) [7] exploits the technological and expressive features of iCinema’s Advanced Visualisation and Interaction Environment (AVIE)⁴. AVIE allows full 360-degree stereoscopic projection within a 10-meter diameter cylindrical screen, 24-channel surround sound, and multi-user interaction via a high-resolution video tracking system that detects and interprets the movements and gestures of the audience. With these facilities, the second Place-Hampi demonstrator will augment its original stereoscopic panoramic content as the context to explore the potentialities of co-evolutionary narrative whereby audience behavior can influence and be influenced by the real time behavior of machine agents (e.g. animated Hindu Gods) that virtually inhabit the various panoramic Hampi sites.

Place-Hampi is being developed using symbolic logic and high level cognitive programming of CG characters in conjunction with intelligent immersive virtual reality of AVIE. This combination of programmed characterisation and space enables dialogue between participant and place. Place-Hampi will ultimately demonstrate that when machine agents are provided with a modest ability to technically respond and

² The term scopic regime follows Martin Jay’s (1988) identification of the “scopic regimes of modernity” (“descriptive”, “baroque” and, “Cartesian perspectivalism”). Scopic regimes are culturally specific ways of seeing that replaces the traditional definition of “vision” as a universal and natural phenomenon. It also supersedes the traditional discussion between technological determinism and social construction and allows culture and technology to interact.

³ PLACE url:
http://www.icinema.unsw.edu.au/projects/prj_placeurb.html

⁴ AVIE url: http://www.icinema.unsw.edu.au/projects/infra_avie.html

interpret symbolically the actions of real participants sharing a mixed reality environment, their interactive responses will co-evolve with their human participants. A full description of the research can be found in various publications. [e.g. 8; 9] Place-Hampi Demonstrator Two will premier in 2008 at Museum Victoria.

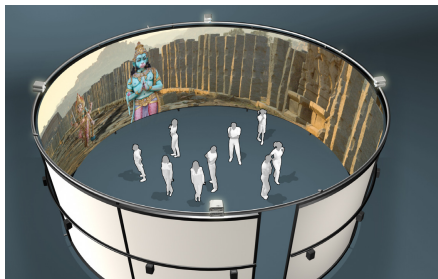


Figure 2 Place-Hampi Demonstrator Two
(© Kenderdine & Shaw, 2006)

The framework advanced in the research addresses a need articulated by virtual heritage scholars to treat the heritage object as an evolving experience in which the story told is not pre-rehearsed but emerging as an interactive dialogue between viewers and agents. [10] Following Deleuze and De Landa it is theorized that narrative is as a reciprocal process in which meaning is co-generated by intelligent agents and viewers as the result of a modest narrative of exploration. For Baudrillard narrative is a self-reflective perpetual present, and for Sturken a menu of images recoverable from the past. Whereas for De Landa and Deleuze narrative is a process that interweaves viewers and cinematic images in the production of new multi-layered events that simultaneously incorporate the past and present. [11; 12; 13]. Providing autonomy to machine agents balances the interactive initiative between virtual characters and viewers within virtual heritage. This equalising of agent and participant transforms the encounter into an exciting and unpredictable drama in which events are co-produced by machine and human.

3. Seeing and being seen

Hampi today continues to be an active pilgrim site, not simply an historic place. Pilgrims believe that the physical objects, visually or symbolically representing particular deities and their events come to be infused with the presence or life force or power of those deities. [14] Each day its landscape and temples are activated through various rituals and tapas specific to time, place and to discrete locations in the complex. Hindi religious practice also emphasizes the concept of *darshan*, of 'seeing and being seen' by a deity. Its role is central to Indian scopic regimes. The act of *darshan* mobilizes and activates the human sensorium, and is a physically transformative contact with the deity. [15] In addition, as part of a living tradition, the interpretation of the site by

pilgrims is in a constant state of re-definition within the broad tenants of (south Indian, Karnataka tradition) Hinduism. A conversation takes place between mythological characters and the sacred objects/sites/natural features permeated with the contemporary "folkloric imagination" of the pilgrims. [16] For pilgrims to Vijayanagara the most important aspect of the site is the association with various myths and legends. Pilgrims experienced the landscape through ritualized movements enforced by the myths into the spatial configuration of the districts around the temples. The promotion of dialogues of engagement in Place-Hampi is significant. The dialogues embedded in the imagery of a cultural landscape activate the knowledge contained there. A translation of the spatial potential is enacted in Place-Hampi whereby participants in AVIE (for example) are able to transform the myths into the drama of a first-person narrative by their actions within the virtual landscape and through the creation of a virtual heritage embodiment⁵ of the real world dynamic. The participants operate as protagonists as their presence allows events to unfold in ways that are sensitive to their actions, and their responses, in turn, influence the real-time action. This conversation envisaged by pilgrims between mythological characters and devotional site is integrated into the system design. The transactional performance schemata are based on the types of narratives that are commonplace in Indian mythology and are utilized in the two Place-Hampi Demonstrators.

4. The aesthetic and the affective

Christopher Pinney's book *Photos of the Gods* provides a seminal history of India's popular visual culture. [17] Combining anthropology, political and cultural history, and the study of aesthetic systems Pinney traces mass-produced images used in India by religious and nationalist movements through the emergence of Indian-run chromolithograph presses in the late 1870s.

Observations made by Pinney include his analysis of research from Melanesia society. One of these studies, by anthropologists Roy Wagner and Marilyn Strathern, posited that certain cultural practice treat images as compressed performances. Thus the culturally determined experience of an image affects both its power and meaning. Pinney extrapolates this cultural response to imagery to the Indian context using the concept of

⁵ Embodiment is the humanistic project of widening interpretation to include all dimensions of social practice or, better, experience — the cognitive and intellectual, physical, aesthetic and the affective. Embodiment is a project of rooting social experience in all the senses of the body. This of course severely explodes narrative and other traditional modes of representation. If in fact embodiment is the experience of the world through all the senses of the body, then narrative strategies privileging one sense over the other, or emphasizing certain aspects over others, prove to be unequal to the task of embodied representation. Archeopedia url: <http://traumwerk.stanford.edu:3455/Archeopaedia/37>

darshan and argues for the notion of ‘corporethetics’⁶ – as embodied, corporeal aesthetics – as opposed to disassociated representation. “The relevant question then becomes not how images ‘look’ but what they can do”. This approach to describing the effects of religious imagery parallels for example that of W.J.T. Mitchell’s reassessment of pictures to have the power to “speak”. [18]

The colonial regime in India introduced new technologies and representational techniques of the period. For colonizers employing of these technologies became a means for dismantling the Indian world view. They turned the aesthetic of pre-colonial so called “idols” in to “art”; and thereby “transform[ed] the intimate and interested engagements of the devotee into the disinterested and rationalized response of colonial political subjects to the images...” [19]

The exploitation of chromolithography initiated a vast outpouring that has come to dominate many of India’s public and domestic spaces. The iconographic power of these images can be seen to be partly in response to British colonial forces present in India during these periods up until mid-twentieth Century.

Increasingly the science of the European perspective of the world was used and fractured the Hindu “dreamworld”. [20] Yet, colonial interests argued for a re-enchantment through allegory at the same time this dis-enchantment effected by Cartesian perspectivalism was being promulgated. Incorporating the image into the space of European representation was informed by “disinterested” aesthetics. As observed by Susan Buck-Morss this amounted to ‘the alienation of corporeal sensorium’. Pinney’s “corporethetics” which mobilized all the sense simultaneously was replaced by anaesthetics (Buck-Morss), ‘numbing and deadening the sensorium’. Pinney describes how the process of endowing images with a moral gravity and the attempt then to export this to India, laid the basis for the emergence of a so-called Indian Magical Realism. [21]

After a brief period of strategic mimicry and ‘sly’ civility, a form of visual magical realism was developed by India’s artists that appeared in reaction to the drive by colonial interests for the displacement of the mythic into the realist. It is generally accepted that the phrase “magical realism” was coined by German art critic Franz Roh in the late 1920s to describe painting in which “our real world re-emerges before our eyes, bathed in the clarity of a new day”. Also Alejo Carpentier’s ‘marvellous real’ was used to describe a hybrid genre of anti-positivist post colonial literature in South America. He also applied a description of the ‘hybridized baroque’. The baroque in this context here can be read as a reaction against spatial rationality.

⁶ In new transdisciplinary program of material culture and visual culture studies, arising out of archaeology and anthropology, has most explicitly addressed the role of affectation (vz. ‘corporethetics’) as a component of the ‘meaning’ or ‘action’ of archaeological artifacts. Archeopedia url: <http://traumwerk.stanford.edu:3455/Archeopaedia/26>

Pertinent to this issue is Parth Chatterjee’s claim that the nineteenth-century Bengali elite found in the rediscovery of popular aesthetics an escape from the ‘prisonhouse of colonial reason’. Magical realist paintings “by contrast assumed an embodied corporethetics...the sensory embrace of images...” [22]

One of the determining elements of Indian magical realism was in response to the “horror” encoded in the visual language of representation in European art. Many of the household deities were pictures whose surfaces were adorned with fabric and curtains thereby destroying the effect of the image as a window. The hybridized surface of the image permitted the viewer to flee from the geometrical arrangements, this emulating Carpentier’s baroque.

Pinney emphasizes that hybridized space opens up as the powers of European art operate in a wider cultural field. “The gods were not simply mannequins to be remodelled within a new representational scheme: the realignment of deities along a new realist tangent created a new hybrid space of magical realist mytho-politics”. [23] This space of separation was systematically denied by colonialist and nationalists who sought authority in the authenticity of “origins” while Indian aesthetic hybridity offered a ‘ruse of recognition’ both signifying and subverting colonial constructions.

There is a slipperiness and malleability of this form within the domain, where images becomes signs of themselves. These images made no attempt to operate in the three dimensional space of colonized realism, and they fell between both hieratic and perspectivalism, frozen halfway between the demands of intimate eye-contact with the devotee and the larger dramatic trajectory from which they had been extracted. [24]

As Pinney points out, these popular images are difficult to analyze from the viewpoint of conventional aesthetics. By contrast:

The significance of images is expressed by rural consumers not through an efflorescence of words around an object, but a bodily praxis, a poetry of the body, that helps give the images what they want. [25]

Pinney’s central concern is to describe how the numbed sensorium was bought back to life. European art that cast its shadow over India was characterized by practices that implied a ‘transcendent point of vision that has discarded the body’ and a ‘disembodied absorption’.

In direct contrast to the European denial of the presence of the beholder through the strategies of absorption, Indian reawakening of the sensorium went hand in hand with mass-produced images in the spaces of Hindu worship (both domestic and sacred). Consumers demanded that these images fundamentally addressed their presence and invoked a new corporethetics. “...In these images the beholder is a worshipper, drinking in the eyes of the deity that gazes directly back at him...” [26]

A bodily relationship with images has been described by various authors including Adorno in the term “somatic solidarity” and Lyotard’s definitions are pertinent to the discussion of physical responses to images (and sound) often heightened in large scale stereoscopic and immersive environments. The image figure is: “relatively free of the demands of meaning, indeed it is not the arena of the production of meaning but a space where ‘intensities are felt’”. [27]

It is with these understanding that Place-Hampi has been approached utilizing technologies of immersion (the sensorium) to become an embodying mechanism, of cultural space. Place-Hampi seeks to recognize the authority of both the origin and the representational scheme, and thereby to provide an environment where the sensorial is active to respond to the representational scheme the images emerge from.

5. Cross cultural sensorium

Virtual heritage applications, if they are to be culturally relevant, must anticipate the impact, of the visual and immersive strategy employed in the system design, on diverse cultural audiences.

Hindi priests and pilgrims are not the only ones to potentially enliven the appearance of Hindu images and temples. A resonance with the intangible qualities of place through an augmented visual landscape is possible for others because “Bringing with them different religious assumptions, political agendas and economic motivations, others may animate the same objects or sovereignty as polytheistic “idols”, as “devils”, as potentially lucrative commodities, as objects of sculptural art, as archaeological and historical relics, or attribute to them meanings and associations never foreseen by the image maker or votary”. [28] Hampi in the real world also constitutes the object of a voracious tourist gaze. [29] However as Davis points out “the location of an object plays a constitutive role in the act of looking” and “appropriation, relocation and redisplay of an object will dramatically alter its significance for new audiences”. [30] The frame of reference or dispensation designates the historically grounded and socially shared understandings of “systems”, and they are manifest in (equally valid) “communities of interpretation”, where the relocation of the object (even in virtual spaces) is justified.

Only a few cross-cultural presence studies are available and one study in particular is relevant to the development of Place-Hampi because it reinforces that the effectiveness of strategies of immersion are culturally specific. The study by Hu and Bartneck investigated the relationship between the user’s cultural background and presence. This research found that cultural aspects do play a role in the design of future technology and the participants’ cultural background clearly influenced the measurements of engagement. [31] While for many socio-cultural researchers (among many others) such findings would not be unexpected, the techniques for qualitative evaluation of technologies in cross cultural

contexts prove that these systems have a resonant effect on different users.

What Place-Hampi provides is a landscape for narrative co-evolution (in machine and participant) and a place of somatic solidarity for the expression of cultural space. As described in Demonstrator Two the tracking systems in Place-Hampi (a contemporary digital sensorium) enables a situation of corporeal registration of visitors’ movements and behaviour. The software driven narrative-interpretation in Place-Hampi (a digitally reformulated corpoethetics) operates in the zone of co-evolutionary interactions between the, protagonists (the audience and the Godly characters). In the context of interpretive virtual heritage practice Place-Hampi references Indian magical realist iconography, appropriate to south Indian Carnatic traditions, as the basis for all stereographic animations that augment the scenes. The characters are both specific to place, and generic enough to read by culturally diverse visitors. This reconstitution is through the form of co-presence that enables a new mode of interpretation and access for diverse cultural audiences.

The success of reconstitution of place utilizing co-evolving systems and establishing co-presence between audience and virtual environs as an approach to providing an immersive cultural space has been affirmed by the positive response to Demonstrator One of Place-Hampi. In upcoming reports, Place-Hampi research incorporates an evaluation strategy based on its real world installations drawing in a wide diversity of cultural groups. This research examines how levels of engagement and identification (“affect”) may differ across both technical infrastructure and the highly specific cultural content

6. Inter-ocular regimes

The aesthetic and conceptual transformation that occurred in nineteenth century India can also be described by the inter-ocular processes of reference occurring between chromolithography and the early films, photography and theatre. Films developed by D. G. Phalke in the early 1910s followed in part a tradition of lithography and painting of Ravi Varma. The power of these new films was profound. In 1917 Phalke released *Lanka Dahan* at which the audience prostrated themselves before the screen. At the Bombay opening B.H. Wadia provides some sense of the huge impact upon the audience.

‘Lankan Dahan’ was a minor masterpiece of its time. The spectacle of Hanuman’s figure becoming progressively diminutive as he flew higher and higher in the clouds and the burning of the city of Lanka in tabletop photography were simply awe-inspiring....I remember that devout villagers from nearby Bombay had come in large number in their bullock carts to have the darshan of their beloved God, the Lord Rama...[32]

Hem Chander Bhargava’s press displayed similar penetration in his response the diverse markets of late colonial India. His press exhibits a lithographic style that

emulated photographic conventions of the day with heightened corporeality and individuality. Proscenium theatre also informed the creation of the new imagery in a “collage” effect through its powerful iconic and narrative formulation. “The technique of archiving elements from different visual sources created ambivalent spaces in which mixed cultural responses could be evoked”. [33]

Jyotindra Jain describes how this eclecticism of visuality of both citation and collage facilitated a “juxtaposition of Indian and Western, traditional and modern, national and subaltern, sacred and erotic elements to co-exist on a single receptor surface”. [34] In all examples we see a resistance to the colonial, and a move towards post-perspective practice. It is also noted by Jain that these collages in a way pre-empted the processes of new media (he refers here to television and video media) in their collage-like effect⁷. This uptake of the technology empowered its users to re-fit Western technologies to Indian cultural and political forces.

As Pinney points out, recent writings on India describe how popularist-nationalistic imagery was a product of time and technology. Television has been described as a key advent of technology defining the move to the Hindu political right. Whereas in the colonial period politics and religion were strictly separated, these two domains are realigned in a powerful form. We can see the rise of a new visual culture is “perhaps the major vehicle for this reconfiguration.”

It may well be that contemporary Indian animation and digitally born mythological content with mass distribution operates as this ubiquitous new media today (and circulates as an international trade in symbolic images in today’s *iconomy* [35]. In this instance one could interpret that the forms of nationalism promoted are now defused against a backdrop of competition in a global marketplace while simultaneously being reinforced as iconic representations of Indian mythology. An analysis of the current commercial animation industry offers a point of departure to imagine futures of Indian mythological imagery.

This year saw the start of production on a new line of animations of Indian mythology with an agenda for global saturation. It is worth noticing this new initiative, in the light of the history of visual representations of the mythology in India (its resistance to colonising intention and its mass distribution). Virgin Books forms Virgin Comics LLC and Virgin Animation have entered partnership with Deepak Chopra, Shekhar Kapur and Gotham Comics and Deepak Chopra commented on the venture “... we will forge new mythologies bringing together east and west. At the forefront of this movement

will be new minds, new voices, and new talents that will re-invent the stories that unite us, and that we live by.”

Shekhar Kapur described his bold vision by adding, “I see the future. It is the brave new world of entertainment. The art of the 2-hour captive, non-interactive product called the “movie” is history. Comic book characters - traditional and digital - are the new cult, the new religion. India’s 600 million teenagers are now at the forefront of the creation of these new Gods. For these new Indian Comic Gods are derived directly from the vast ocean of Mythology.”

Chief Creative Officer, Gotham Chopra, added, “We are a generation whose identities are cut and pasted from cultural elements of east and west. Virgin Comics and Virgin Animation is our home where we get a chance to tell the new planetary stories that define us.” [36]

Conclusion

Inevitably the Indian *iconomy* will be transformed in the digital age. Place-Hampi is a distinctive incident in a plethora of emerging visual media trading in Indian religious iconography. The project is also a preliminary experiment in creating co-evolutionary narrative experiences in virtual heritage environments underwritten by the phenomenology and hermeneutics of place. As noted above, the Demonstrators utilize transactional performance schemata based on the types of narratives that are commonplace in Indian mythology and pilgrimage. As the machine agents and participants learn to stimulate these scenarios through their actions, they co-evolve unique narrative experiences. In this way Place-Hampi instigates a digital reformulation of the notions of corporetics and somatic solidarity. This reformulation is both convergent with and facilitated by the new technologies of immersion, presence and hybrid interaction.

One undertaking of this paper about Place-Hampi has been to reflect on the histories that underwrite its placement in cultural traditions of engagement with Indian religious iconography. Place-Hampi is a powerful form of media where cultural knowledge has been embedded to produce a work that is consistent with Indian aesthetics of engagement. The work is in full recognition of the historic use and promulgation of iconography throughout and outside India; and holds an informed position on the history of tension between colonial mechanisms and Indian aesthetic traditions. The charge to the authors has been to create Place-Hampi as inhabitable cultural heritage visualization and thus provide the opportunity to reflect upon its potential affects for diverse cultural audiences. The qualitative and quantitative analysis from the first Place-Hampi Demonstrator will be published in upcoming research reports after the scheduled installations over the next two years. The concurrent and ongoing research to develop models for co-evolutionary narrative that address the complex issues surrounding the creation of autonomous agency for characters that represent both historical and intangible aspects of place. The research intends to

⁷ The power of the inter-ocular is prevalent in the discourse on new media techniques. Place-Hampi, as a platform for interactive cinema also references earlier forms. Lev Manovich describes how “Place” by Jeffrey Shaw “evokes the navigation methods of panorama, cinema, video and virtual reality. He (Shaw) “layers’ them side by side”. Manovich, Lev. *The Language of New Media*. Cambridge, London, Boston: MIT Press, 2001: 282.

provide models that can be applied in different scenarios of interpretive heritage visualization.

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References

- [1] Place-Hampi: Co-evolutionary narrative & augmented stereographic panoramas, Vijayanagara, India url: http://www.icinema.unsw.edu.au/projects/prj_hampi.html (last accessed 31 Feb 2007). 2006.
- [2] Del Favero, Dennis, Jeffrey Shaw, Steve Benford and Johannes Goebel. Co-evolutionary narrative as machine autonomy in the relationship between artificial agents and human participants in interactive cinema. ARC Discovery Project, Linkage Application, Canberra. 2004
- [3] Gerhard, Michael, David Moore, and Dave J. Hobbs. Embodiment and Co-presence in Collaborative Interfaces. *International Journal of Human Computer Studies*, Vol. 61 (4): 453-480, Elsevier Academic Press. 2004
- [4] Gerhard, Michael, David Moore, and Dave J. Hobbs. Close Encounters of the Virtual Kind: Agents Simulating Co-presence. *Applied Artificial Intelligence*. 19(3-4): 393-412. Philadelphia: Francis and Taylor Group. 2005
- [5] Kenderdine, S., "Stereographic panoramas of Angkor, Cambodia", *Virtual System and Multimedia*, Gifu, Japan, November 2004, International Society for Virtual Systems and Multimedia. 2004.
- [6] Kenderdine, S and Paul Doornbusch. 2004, Presence and sound: Identifying Sonic Means to "Be There". *Consciousness Reframed*, Beijing, November 2004. 67-70. Plymouth, England: Planetary Collegium. 2004.
- [7] Advanced Visualisation Interactive Environment (AVIE): 2006; url: http://www.icinema.unsw.edu.au/projects/infra_avie.html (last accessed 31 Feb 2007).
- [8] Kenderdine, Sarah, Place-Hampi: Co-Evolutionary Narrative & Augmented Stereographic Panoramas, Vijayanagara, India, VR Mag; url: http://vrm.vrwav.com/vartist/spotlight/PLACE_HAMPI_STEREOGRAPHIC_PANORAMAS_OF_VIJAYANAGARA_INDI_A.html (last accessed 31 Feb 2007). 2006
- [9] Kenderdine, Sarah and Jeffrey Shaw, Dennis Del Favero, and Neil Brown, "Place-Hampi: Co-Evolutionary Narrative & Augmented Stereographic Panoramas, Vijayanagara, India, chapter, *New Heritage: New Media And Cultural Heritage*, eds. Yehuda E. Kalay, Thomas Kvan, And Janice Affleck, Routledge, 2007. In Press
- [10] Milekic, Slavko. Towards Tangible Virtualities: Tangialities. *Proceedings of Museums and the Web 2002*, Eds. Bearman, David and Jennifer Trant. Pittsburgh: Archives and Museum Informatics. 2002
- [11] De Landa, Manuel. Virtual Environments and the Emergence of Synthetic Reason."Virtual Futures: Cyberotics, Technology and Post-Human Pragmatism. eds. Joan Dixon and Eric Cassidy. London: Routledge. 1998
- [12] Deleuze, Gilles. *Cinema 2: The Time Image*. Trans. Hugh Tomlinson and Barbara Habbajam. London: Athlone Press. 1989
- [13] — Negotiations 1972-1990. Trans. Martin Joughin. New York: Columbia University Press. 1995.
- [14] Davis, Richard. H. *Lives of Indian Images*. Princeton New Jersey: Princeton University Press. 1997: 6-9.
- [15] Christopher Pinney, *Photos of the Gods: the Printed Image and Political Struggle in India*. Reaktion Books Ltd, London, UK. 2004.
- [16] Adajania, Nancy. 2002. Towards a New Folkloric Imagination. In *Kapital and Karma*, ed. Angelika Fitz. 47-58. Vienna: Kunsthalle Wien, Hatje Cantz 2002: 47.
- [17] Pinney op cit.
- [18] Ibid, p8
- [19] Ibid.
- [20] Ibid, p.70
- [21] Ibid p.18
- [22] Pinney following Hegel, Ibid, p.19.
- [23] Ibid p.20.
- [24] Ibid
- [25] Ibid.p. 21
- [26] Ibid p. 23.
- [27] Jean-François Lyotard cited by Pinney, op cit p.22
- [28] Davis, op cit.
- [29] Urry, John. *The Tourist Gaze*. London, Thousand Oaks, New Delhi: Sage Publications Ltd, 2001. 2nd edition.
- [30] Davis, op cit.
- [31] Jun Hu, Christoph Bartneck, *Culture Matters - A Study on Presence in an Interactive Movie*, Presence url: <http://www.idemployee.id.tue.nl/j.hu/publications/Presence2005/TheInterview.html> 2005.
- [32] Pinney, op cit, p.72
- [33] Jain, Jyotindra. *Indomania: Indian Popular Culture*, Lille3000, Lille, France, 2006.
- [34] Ibid.
- [35] Smith, Terry. *The Architecture of Aftermath*, University of Chicago Press, 2006.
- [36] Gurnani, Anand. Virgin Books forms Virgin Comics LLC and Virgin Animation, enters partnership with Deepak Chopra, Shekhar Kapur and Gotham Comics, <<http://us.animationxpress.com/anex/y2k6/headlines/anex439.htm>> 2007.