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May 2005

Spatial flux: interface as site

Interactive experiences are necessarily located. Taking place within the social and cultural context of the work environment, the home, the task or the game, interaction is continually part of a wider frame of actions situating and framing the meaning of the digital. This framing affects the means by which the digital is engaged. During recent years practitioners in Human Computer Interaction and Virtual Environments have sought a distinction between space and place so as to categorise experience in digital environments. Learning from the field of architecture and urban planning this conceptualisation has led to the definition of *space* as a neutral container of events and objects: "[space is] the structure of the world; it is the three-dimensional environment, in which objects and events occur, and in which they have relative positions and direction", and *place* as a cultural framework locating social behaviour: "[place is] a space invested with understandings of behavioural appropriateness, cultural expectations, and so forth" [Harrison 96]. This differentiation has allowed for the discussion of experiences of interaction and co-presence that lie outside a three dimensional framework [Benford 98]. Here, *place* becomes a term by which spatial experiences that rely on their social and cultural practices can be articulated. As such, the conceptualisation of *place* reflects an embodied approach to interaction, where practices are emergent, learnt conditions that arise through the user's engagement with the interface as well as with the situated tasks at hand.

The definition of *place*, however, relegates the concept of space to an a priori structure of extension. By holding space exempt from its inhabitation and experience, as separated from the social and cultural activities that take place within it, it is rendered deplete and void, a pure three dimensional space of extension. This paper presents research undertaken between the fields of architecture and computer science. As a spatial investigation, the research probes how space can be understood as a result of inhabitation, coming-into-being through the actions of its users. Referring to the architectural concept of *event space*, this paper suggests how new spatial models challenge underpinning interaction paradigms, releasing the digital from a model of simulation and allowing it to attain a dimensionality and presence of its own.



Fig 1: images from *The Changing Room* (performed at Dance Umbrella, Nov 2004)

The paper presents the two dance-architectures of *The Changing Room* and *Crossings*. While the projects are developed in an art and architecture context, they provide a model by which the concept of event space and interaction can be explored.

Architecture of the event

The discussion and re-evaluation of a Euclidean concept of space as a structure of extension has been at the core of the architectural project throughout Modernism. Relativism, hyper-dimensionality, questions of time and space and of experience and memory have established a subject who is bound to the act of perceiving in a world affected by the complexity of subjective presence. Architecture, as the tradition of conceiving and designing boundaries, is becoming increasingly concerned "... *not by how it appears, but rather by practices: those it partakes of and those that take place within it*" [Kwinter 02].

The architectural concept of event space seeks to provide a vocabulary by which a *space of becoming* can be framed. Rather than seeking a spatial void, drawn by boundaries of walls, floors and ceilings, event space is the conceptualisation of a space coming into being through the moment of inhabitation. It extends in time, drawn by the actions of its users, continually flexing with the curvatures of the event. Here, space is an indeterminate condition, a qualitative density deepened or intensified by the engagement of its users. Merging experience and action, space becomes a *hybrid practice*, conflating and deflating with the fluctuations of the users motility and presence.

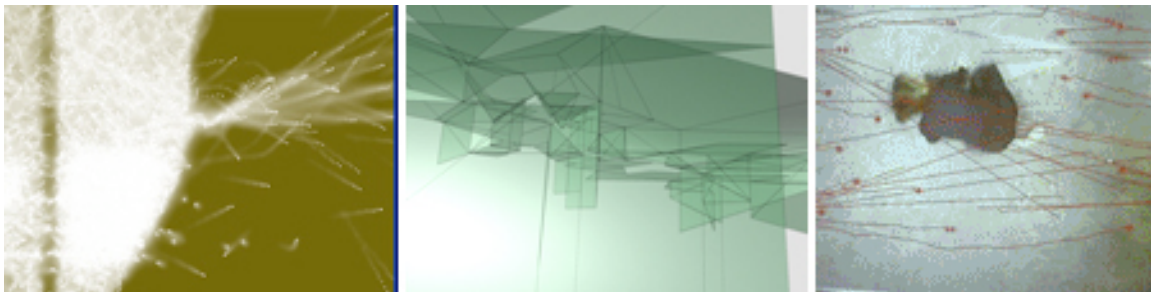


Fig 2: images from *Crossings* (work in progress)

Releasing the digital: developing new embodied practices for the event space of interaction

It is this folding of event and experience that makes event space an interesting model for conceiving interface design. Here, *space takes place* within an environment for action. The interface becomes an extension to this environment allowing the user an extended sense of presence, the forming of new practices that shape and reshape an event space that engages a digital dimension. Here, the core spatial dimensionality or modality is drawn from the potential for action.

The entwining of space and action means that space itself is conditioned by the agency experienced by its inhabitants. The environment for action becomes a locating device, a site, in which space can take place. Conceiving the interface as a site for action challenges the existing aim for creating transparent or invisible interfaces. Rather than seeking to negate the split between a physical and a digital realm of presence, the concept of event space emphasises the interface, thereby making the learning processes apparent to the users and engaging them in the process of exploring their extended sense of agency. The exploration of a digital environment is therefore not reliant on a sense of transportation into a digital world, but rather on the learning of a new sense of presence pertaining to the extended environment for action. The experience of learning is the formation of new embodied practices. Rather than seeking to emulate real world actions as interactions to a digital world, the sited interface becomes a learning environment, allowing for the incorporation of a new sense of agency.

These moves release the digital from the image of real-world equivalent. The interface is suggested as medium through which the potential for presence is redefined. Rather than conceiving the interactive environment as a fixed place of user optimisation, the conceptualisation of event space re-constructs the user's role in a reality that mixes, joins and grafts physical and digital experiences.

The Changing Room and Crossings

These concepts of space and interaction have informed the design and development of two dance-architectures: *The Changing Room* and *Crossings*. Conceived in collaboration with dance choreographer Carol Brown and computer scientists Jesper Mortensen, Chris Parker and Chiron Mottram, the projects seek to explore how interaction can become the making of a hybrid practice engaging the durational space of the performance. In *The Changing Room* and *Crossings* the choreographic score is the shaping of an embodied practice that relates the performative presence of the dancers to a digital dimension. The choreography is conceived as an improvisational movement score, the making of a movement language through which the dancers learn to engage with a digital other. The score is an encoding of the body with a movement logic. The movement score provides a blueprint for action, a set of movement forms, qualities and tasks that enable the performers to retrain their sense of embodiment, relearn its motility, agency and presence. During the performance, the performers explore the 'knowledge' that the system contains about them, steering, altering and re-assembling the manner in which they are seen. In *The Changing Room* the digital dimension is shaped as a *virtual other*, a splicing between that which mirrors and that which becomes in effect a virtual dance partner. In *Crossings* the performers engage with a digital ecology emerging from their behaviours.

In both cases the interface exists as a site for action and interaction. Here, the interactive stage becomes an environment for action where the event space of the performance can arise. The audience explore the suggested relationships between a physical and a digital space not through models of assimilation, but through the shared behaviours of action and reaction performed by the dancers.

Conclusion

Conceiving the interface as a site for action and interaction is the forming of a hybrid practice, where the exploration of an extended sense of presence becomes the foundation for spatial experience. Using the dance-architectures of *The Changing Room* and *Crossings* as a model for thinking this durational space, the aim of the research is to suggest that rather than seeking to emulate or reproduce real-world experiences as digital interface environments, the digital can claim an own hold on the body. In these environments the issue of space and place are re-configured so as to create an emergent practice, learnt through the design of the movement score. Here, the interface is the foundation for an enacted topology whose dimensions and modalities are better described through ideas of the durational and the performed rather than through extension and form.

References

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