The Performative edge: place exploration [1]

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Abstract: A performative approach to place is proposed, and implications for architecture and urban design explored. Illustrative examples are discussed, focusing on the knowledge work place. It is argued that examination of the performativity of the knowledge work place enables a critical engagement with the questions of work practices, technologies and the urban, under the conditions of an emerging, globalizing knowledge-based economy. The processes whereby an improvised, but legitimised, knowledge work place emerges on the periphery of the King's Library Tower in the British Library are discussed. This unintended, emergent work place is contrasted with a work place designed to house creative business units, located within Central Saint Martins College of Art and Design. Both use similar objects and forms as context markers, but crucially the contextual hierarchy and topographic markers within each differ. A performative approach to work place encourages design to consider how spaces are used and re-formed to generate places of work that suit organisational and personal styles. As an approach, it builds on what architects and urban designers already do and serves as a knowledge-sharing language enabling the use of ideas from across a broad spectrum of social scientific and design practices. The implications for architecture and urban design of a performative approach include generation of a more informed understanding of the anthropology of place; its better integration with the engineering of place; and the need to create transdisciplinary teams who consider the integrated performance of the social reality into which the design is to intervene.

Keywords: Performativity; Place; Contextual design; User-Driven; Appropriation

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1. Introduction

In November 2004, the United Kingdom's Department of Trade and Industry, through its Technology Programme, issued a call for research projects to develop applications that enhance productivity. As part of a project responding to this call, we interpreted it as expressing a need for the design of interactives that enhance performativity, [1] on the basis that productivity is a practical accomplishment, achieved through material-social performance, and work-place applications are moving toward a more sophisticated type of human-technology interaction, given the parallel emergence of such developments as tangible computing, ubiquitous computing and social technologies using Web 2.0 principles.

Further exploration of these ideas, through adoption of a more systemic approach, led us to redefine the brief as a call for the design of interactives, including interactive environments, that enhance performativity, i.e. embodied and embedded places, as systemic wholes or 'minds', whose performativity may be enhanced, part of which may be measured in terms of productivity improvement, using conventional accounting metrics related to time, output, competitiveness and profitability.

In short, our research into applications and productivity led us toward an investigation of the performativity-place relationship. This journey is mapped in Figure 1 below. In what follows, we will develop the ideas introduced above through the discussion of two examples of knowledge work places, one set within the public, institutional environment of the British Library, which we used during our collaboration, the other set within an institution of higher education, Central Saint Martins College of Art and Design, which had served as a case study in our research project.
2. Place

For us, place is important because, as John Wood et al. (Wood, 2005: 5) argue, people are place makers and the act of making place is inherently moral. [2] Place enables us to explore the choices we make and how our actions and interactions, our "doing" or our performativity, affect our relationships to ourselves, to each other, and to the designed, built and natural worlds.

We understand place as a systemic whole, an information, communication, exchange and control system, an example of an ecosystemic unit of 'mind' (Wilden, 1980: 258), in the sense elaborated by Gregory Bateson, for whom the mental properties of the system are immanent within the system as a whole, not any one part. Within such systems, causality is non-linear and circulatory.

In such cybernetic systems, as Bale (Bale, 1998) explains, there is a hierarchy of contexts. A mind-system is Janus-faced. As a whole, the system faces inward. It is concerned with maintaining its internal steady state through its dialogue with itself. As a sub-whole, a
differential part of a larger whole, the system faces outward, responding to perceived differences in its environment, a meta-system, and differences communicated to it through pathways or networks of recursive circuitry within the larger mind system, in a potentially infinite regression of relevant contexts. [3] Places are sets of interlocking processes and relationships, held in an ecological balance, which may be far from equilibrium, and which may be very precarious. (Levin, 1997)

3. The urban

As place is important, so is the urban, because the urban environment is, for us, as for most people, where life is either enhanced or diminished. Cities facilitate or hinder development of a sense of place, a kind of human experience that impacts strongly on how we situate ourselves in the world. (Sheldrake, 2007: 50)

Furthermore, as Mike Davis argues forcefully, the urban is important because the world is entering an "urban climacteric" (Davis, 2006: 1-19). During the 2000s, for the first time in human history, the urban population of the planet will outnumber the rural. Cities will account for virtually all future world population growth, almost entirely (95%) in the urban areas of developing countries.

The price of the new urban order, according to Davis, is increasing inequality within and between cities of different sizes and economic specializations. At one extreme are the cities of the developing world, characterized by a form of growth that does not necessarily imply a coeval process of industrialization, or even of development. At the other extreme are the deindustrialised cities of the developed world, such as London, where our attention is focused.

Both extremes pose challenges for the urban form: the former, through its lack of design and planning, approaches anarchic conditions which undermine sustainable human life; the other, by being hyper-designed and over-rationalised, stagnates human and social invention through its restrictive forms of individualized contractual engagement, as
described by Marc Auge (Auge, 1995) [4]. For London, the challenge is to put substance to its claim to be a specialist centre or attractor in the creative industries. [5]

4. Work

Under conditions of flexible accumulation and urban specialization in the technology-intensive, globalizing, knowledge-based economy, work practices [6] are no longer, if ever they were, reducible to what is done within the job description. Indeed, as the literature on the futures of work suggests, it is not work which is disappearing but the job, as full-time, permanent, lifetime employment, with serious implications for careers, and what continues to change in work is the balance between human and technological forms of performativity. [7]

Much of the work available in the knowledge economy is not entrepreneurial self-employment, although often labeled as such, but simply labour for someone else's profit. [8] Emerging patterns of work, featuring de-layering of management, downsizing, temporary contracts, subcontracting, individual wage bargaining, virtualisation of organization, technologisation of work and business processes and off-shoring, challenge work as place, as stable site for production; the human body as place, as identity through repeated work and behaviour patterns; and the urban as place, as centre of and for employment. Workers' skill-bases, i.e. in our terms their performative ranges, are being displaced by contractual, geographical and technological change. Workers continually have to alter their 'act' and adjust their actions to performative repertoires of different durations and uncertain spatialisation.

For us, then, the question of work practices, and of social practices more generally, the question of technologies, or of the objectification, architecturalisation and technologisation, i.e. the design, of social practices more generally, and the question of the urban, or urbanization and globalization more generally, come together and can be explored through the performativity of work place.
5. Emergent nomadic work place

While we conceive place as an integral whole, there are potential disjunctions [9] between the levels of the system or between the different forms and scales of place or mind. These potential disjunctions expose the performativity of bodies of different kinds in holding together the place as system, aligning its parts, and inter-relating it to other places, at the same time and at other times and at the same scale and other scales.

Thus, a person or persons can be relatively disjoined from the immediate place, spatio-temporal set of events or situation, and joined to other places, but such persons cannot be disjoined from place altogether. This can be seen in Illustrations 1 and 2.

In Illustrations 1 and 2, we can see two disjunctions emerging. The first is between the public place of the British Library corridor, as a place for resting, perambulating, eating or drinking, and the persons enacting a distinct place of work along the edge of the corridor. The second disjunction emerges between the persons in their marked-out work place and the British Library as institutional cultural resource, as manifested by the structure of the King's Library Tower [10] behind them, shown more clearly in Illustration 2, and the surveillance of the British Library attendant on the balcony above, in the left hand corner of Illustration 1.

This emergent work place is related to the other places denoted by 'The British Library' but disjoined from them by the performativity of place-making. The work of alignment/disjunction is performed, as can be seen clearly in Illustration 3, by the knowledge workers using the available resources, which themselves become performative: they create the boundary or edge that they mark. Sofas, chairs, stools, power sockets, laptop computers, paper notepads, body posture, spatial distance, structural building features, and so on, are marshaled towards place-marking and place making.
6. Topographic bodies

Illustration 2

However, this is not a place which has emerged spontaneously, independently of the British Library as built-institutional place. It has emerged in collusion with the British Library's management, which has provided the sofas, chairs, stools, table lamps and power sockets. As a place, then, it is contained within a hierarchy of contexts-places, part of an extended social order, in which London's economic specialization and the British Library's role in it are integral parts. The British Library is a topographical place within London as urban economic landscape.

We also see the emergence of a topography within the confines of the British Library itself [11], with the emergent work place having a front, or prospect, the boundary between public place and work place, and a back, or retrospect, the boundary between institutional place and
work place. Through this topography, the place is established as a retrospective-prospective presentment, indicating the performativity of the built environmental forms, their embodied process in enacting the attention system of the place, its sense of presence.

7. Topographic, narrative and theatrical bodies

The King's Library Tower, the bronze and glass-encased book stack visible in Illustration 2, can be understood as a body-marker of the topographical order of places-contexts within the Library setting. The King's Library Tower orients place-making performatively towards the reading rooms, a place of access to knowledge, a place where the British Library maintains ordered access to the ordered world of knowledge, as structured by the Library's classification and storage systems.

The King's Library Tower is an unambiguous symbolisation of knowledge as cultural resource, on the one hand, but also of knowledge as property, as possession, on the other. The library belonged to George III, King of Great Britain and Ireland in 1760-1820, the sovereign individual of that period, before passing into public, in this case national, ownership. It is a performative symbol of what is being made available to library members, the promise being that, as library members, they too can become sovereign individuals through possession of knowledge, gleaned from access to the books and journals in the nation's possession, and through that knowledge-possession become empowered, because free from tradition (religious and feudal social order) and prejudice (superstition, myth and magic). Thus, the topographic place opens out into narrative sequences, for example, a historiography of the nation as a collective body, a narrative of progress, or a biographical narrative of individual knowledge acquisition, a narrative of quest.

The King's Library Tower is not a passive or static symbol; it is impassively performative in the Austinian sense, it enacts what it represents: Enlightenment rationalism as cultural memory and cultural resource. It can be seen in its outward order: a body of texts within an
architectural body, by means of which the reality of Enlightenment rationalism can be entered, recalled, re-enacted, re-experienced and renovated.

Illustration 3

The King's Library Tower is visible as backdrop in Illustrations 1 to 5. In a literal sense, it sets the scene, but also metaphorically, it is the backdrop to the knowledge work place as theatrical scene which can be witnessed from the balconies visible on the left in Illustration 1. In this scene, the drama of national territory (the British Library), of Enlightenment (the books as carriers of knowledge-content that enlightens-informs in the process of modernisation, emancipation from tradition through knowledge), of modernity (with its Georgian challenges of empire, extra-parliamentary radicalism, egalitarianism and cultural progress) and of modernism (the architectural form of the tower, its technology-dependent height, and its materials, rendered
concrete, glass and bronze) are re-staged and re-produced on a daily basis.
In all of these senses, the emergent knowledge work place around the King's Library Tower is a performative edge, marking and re-marking
topographically, dramatically and narratively a passage towards the post-modern (plurality of places and contexts), post-modernism (emergence of relative dis-order, or re-ordering, through practice, performativity and digital technologies), post-enlightenment (knowledge as process, as negotiation, as interpretation), in a post-humanist ecology, i.e. the human is no longer the measure of all things.

In this way, we can recognize a moment in the concrete reality of today's world through its performativity, which intertwines places, non-places, spaces and times in a complex articulation, that is to say, the abstract (time, place, formal logic) and the concrete (temporalisation of practice, spatialisation of practice and practical or situated reason) are intertwined to form an "order on the edge of chaos". [12]

The modern-post-modern world aligns the order realized through the embodied enactment of places with the enactment of the abstract logics of spaces and times, defined by the abstract or formal logics of contracts, for example, business contracts, investment contracts, employment contracts and sub-contracts. Thus, the emergent work place in the British Library corridor is only realizable at those times during which the British Library staff are employed to monitor the places enacted within their territory. The contract time of employment shapes the emergent place of knowledge work, although less so than the opening times of the reading rooms. Access to these disjoined worlds, and alignment of these disjoined worlds, is performed by context- and place-markers in the forms of objects, persons, technologies and environments, which mark the paths and circuits among levels and the boundaries between levels and contexts, using topographical, dramaturgical, narrative, logical, instrumental and other forms of ordering and direction, through which performativity as work is achieved.

8. Collective bodies

The emergent corridor work place, while forming a collective body, does not form a self-consciously communal body, or a political body in
any coherent sense. The people working there are not consciously united. Nevertheless, they do form a collective body of some sort, a population perhaps, and in that sense could be said to constitute an ecological collectivity. Furthermore, in working as a disparate population of knowledge workers, they could be said to form an abstract economic collectivity, a work force of some kind, but again not an organized one. Within that collective body, some choose to perform individually, while others form small groups or teams, mostly of two to three people. In sum, while they constitute a collectivity, they do not constitute a purposive organization, with goals and common interests.

9. Emergent offices

The collective body of knowledge workers creates the emergent work place. However, at a smaller scale, within the emerging work place around the King’s Library Tower, emerging offices as places can be recognized. The boundaries of these office places are created performatively using the flexible architectures of human bodies, objects, clothing, and technologies, and whatever architectural features lend themselves to the performance. In Illustration 3, we can see a sofa-based office space for two persons, defined along its corridor boundary by stools and objects placed on the stools forming an effective barrier. To the right of the sofa, the man uses the lid of his laptop computer as an effective boundary marker. To both left and right of the sofa, the men use a head-down, bent-over posture to close off their individualised place from others, a similar gesture for writing using paper technology and computer technology.

In Illustrations 4 and 5, we see a table-based office place emerging. This is much more of a re-purposing of place, the restaurant tables being pressed into service as offices desks, with less collusion from the British Library, for example, no sockets for computers. Looking at Illustration 5, the lamp-shade sketches an office ceiling; the far wall is formed by the restaurant balcony; the wooden benches and stone dividers forms the side walls, while the fourth wall is provided by a person's body, which could also serve as a door, should someone wish
to address the group and enter its place by, for example, placing a hand upon the man's shoulder by way of knocking.

Body language reiterates the formation of place. In the sofa-based office, the bodies are aligned towards one another, hand gestures intensifying the connection, objects (water bottles, papers, plates, coffee cups, plastic cups and bags) arrayed around the edges, forming a loosely defined boundary. In the desk-based office, the bodies lean in towards one another. There is no need to reinforce the architecturally-formed boundaries on three sides, although clothing and bags could be used to personalize the occupation. A human body and a coat placed over a chair complete the enclosure on the fourth side.

10. Nomadic or homeless?

In one sense, the emergence of these performative edges, i.e. the work places on the edge of the King's Library Tower and the edge of the British Library restaurant, could be read as a performative feature in a narrative or a drama of overcrowding, which goes as follows: "The reading rooms are full to capacity. The Library's reader-members are spilling out into its corridors. What happens when they become so numerous that they begin to sit on the floors, filling the corridors so that they are no longer passable, making the corridor space uncontrollable, forming a knowledge-worker favela? These people are not so much nomadic knowledge workers as itinerant or homeless knowledge workers. This is a national economic problem: the infrastructure to support a knowledge-based economy is inadequate. Knowledge workers are pouring into the few existing adequate places."

However, the emergence of these performative edges may be interpreted more positively, as a performative feature in a narrative of progress, which goes as follows: "Knowledge workers, even those most intensely interested in scholarship, are moving towards collaborative styles of working. Using emerging social technologies, they are moving away from individualised, archival, textual scholarship, towards a more interdisciplinary and transdisciplinary
collective mode of working, improvising as they go, even as far as the places in which they work. It is a thoroughly dialectical, creative world, far removed from the kind of instrumental performativity described by Lyotard." [13]

Depending on which narrative or dramatic frame is selected, the issue to be addressed may be one of demographics and ecology, of population and territorial size or resource base size, with insufficient investment in spatial resources, causing overcrowding; or one of space utilization, in response to which more conventional spatial resources should be turned over to emergent place-forms, for learning, working, collaborating, etc.; or, indeed, one which mutually contextualizes these two different kinds of problem.

11. Creative work place

The British Library emergent knowledge work place, with the emphasis on scholarship and physical and digital collections, and hence the creation of new knowledge from existing knowledge, is an example of an unintended place, brought about by a combination of institutional and personal action and interaction over time. Central Saint Martins Innovation is a deliberate attempt to create a knowledge work place, focused on creativity and innovation through design. It serves as a unit housing design, research and consultancy practices.

Interestingly, many of the contextual markers used in both places are the same. Particularly noticeable is the use of a sofa and a table to create collaborative spaces. However, since this is a business incubator for the creative industries, the overall topography is ordered through a more conventional business-body architecture, with the head-brain, the business manager's office, at one end of a corridor-spine-nervous system that connects to the limbs, the dedicated office spaces, workshops and studios, where activity takes place. The potential collaborative places are situated in the corridor, as part of a re-purposing, taking advantage of the corridor's communication potential. [14]
Dedicated office space enables the creation of a degree of communal place or organic society to emerge within each office. The existence of a number of discrete offices, and a competitive environment encouraged by the combination of entrepreneurship, innovation and business principles, engages a certain political society also, with potential inter-office rivalry and worker/management tensions, both at the level of the office and of the unit as a whole.

The performative challenge here is to hone those energies, rivalries and management tensions into a creative whole, from a design and research perspective, and a productive whole, from a business perspective, and to render those two different accounts compatible in design practice. The performative edge of the emerging collaborative places in the corridor can serve a function here in aligning the competitive world of business practice with the more collaborative world of design practice, by creating negotiation places where people can tackle the paradoxical injunction in their work environment to "act competitively while acting cooperatively". This is a more complex performative challenge than providing potential places for nomadic workers, who, together, share no organizational goals. Similarly, the combination of dedicated office space and collaborative corridor space enables the establishment of stable identities, not easy within the nomadic work place, as a basis for individual creativity while allowing for a degree of interdependence in the more free-flowing corridor spaces.

12. Implications for design

For architects and urban designers the paradox is to design an emergent order which is not wholly preconceived, an order which is in some way designed, as an unfolding of events, but whose unfolding is not wholly pre-determined, an order whose events, which are potentially catastrophic or chaotic, always resolve as happy accidents, whose interactions change the prevailing situational and organizational order in such a way that the outcomes are acceptable and indeed desirable, but in some way unexpected.
The emerging nomadic work place in the British Library is one such happy accident, partly a product of the scale of the vision of the architect, Colin St John Wilson, who by design yet without intention created a potential nomadic knowledge work place which exploits technologies, such as wireless laptop computers, that were not part of the planning or design process when it began in the 1970s.

From a performative perspective, architecture and urban design become part of the design of institutional forms, which frame events, situations and sequences of situations topographically, taking collectivities and forming them into places and organizations. One of the performative goals of architecture and urban design, then, is to create environmental features that aid negotiation of these complex social worlds, for example, places which facilitate co-existence of individual and collective identities and switches among them.

To adopt a performative stance is to recognize and to build on what architects and urban designers already do: integrate the civil engineering of place, which is precise and predictable, with the anthropology of place, which is imprecise and unpredictable. [15] A performative vocabulary is a knowledge-sharing language, enabling use of ideas drawn from practices across the arts, design, humanities, social sciences and science, computing and engineering, in order to develop a more informed understanding of the anthropology of place and its better integration with the engineering of place.

Taking a performative view of place enable us to consider how people, objects, technologies and environments come together to achieve organizational and institutional goals performatively. This performance is both rehearsed, in terms of the rituals of social practice, and improvised, in terms of adaptation, emergence and innovation. It is also many-layered: it has a topographic layer (the force of sense of place); a dramatic layer (the emotional force of situations); a narrative layer (the persuasive force of rhetoric and story); a logical layer (the rational force of argumentation); an instrumental layer (kinetic force); an organizational layer (collective force); and a management layer (the force of authority). Furthermore, all these modes and layers of
Performativity are integrated in institutionalized social practices, into which new persons, objects, technologies, architectures and urban forms intervene. If that intervention is clumsy or insensitive, they may be met by the full force of the above-mentioned performativities, and rejected forcefully.

The practical implication of adopting a performative approach is that design requires the formation interdisciplinary or, more properly, transdisciplinary teams, which include non-experts and non-professionals whose knowledge of the integrated performance of social reality is equally valid as the more refined, but very fragmented knowledge of experts. Together, such teams can pay attention to the broad field of existing performativity into which the design intervenes, while also focusing on the relevant scales and contextual hierarchies through which the pragmatic fields of practice, with their commonsense processes and goals, are enacted. They can also pay attention to the distribution or weighting of existing performativities among:

- people (as individuals and collectivities of different sizes);
- technologies (i.e. technical devices plus people, their technological skills and the abstract intellectual systems being utilized);
- objects (or technologies in object-form);
- interior architectures; and
- exterior or urban architectures and environments.

As a group, they can decide the scope of the initial intervention they mean to make, the design intention, while leaving broad margins for potential unintended usages and adaptations, and the scale of the initial intervention.

Above all else, the implication of a performative approach for design is learn from your own and others' existing, realized designs, your own and others' plans, particularly where they seem to go astray in practice, to become messy formally, such as the corridor and restaurant spaces
in the British Library, where they might be said to be reaching toward the performative edge, performatively holding off the chaos of social anomie and the stagnation of excessive social regulation.

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Notes

1. Performativity, broadly conceived, is a material, practical and an ecological concept. It covers human performance and non-human performance, which are intertwined, as discussed by Pickering (1995). The concept of performativity first emerges in Austin (1975) and Austin (1970). Three aspects of performativity are important to highlight: the Austinian sense of an act that brings into being that which it purports to describe; how and whether that which is brought into being can be sustained in being; and the contestation among performative acts in establishing what exists, what is real, and what is appropriate. This last is the moment of performativity as knowledge-power.

2. The starting point for our understanding of place as a moral issue is ethnomethodological. Following Garfinkel, we understand that,

"the possibility of common understanding...consists...in the enforceable character of actions in compliance with the expectancies of everyday life as a morality. Common sense knowledge of the facts of social life for members of the society is institutionalized knowledge of the real world. Not only does common sense knowledge portray a real society for members, but in the manner of a self-fulfilling prophecy the features of the real society are produced by persons' motivated compliance with these background expectancies." (Garfinkel, 1984: 53-54)
What we would add is that much of the stability in creating this common ground is achieved through the place as environment, i.e. not simply through human behavioural or intersubjective interaction.

3. In Bale's (1998) terms, a context is a non-substantial phenomenon, functioning like a map or a model. It is a recognition of the differences that make a difference within a set of relationships.

In a similar vein, Dourish (2004) argues that context is actively produced, maintained and enacted in the course of activity at hand. Context is a process of contextualization which established and maintains relations among objects, activities and objects and activities.

4. For Auge, much of the urban landscape is marked by what he calls non-places, such as airport waiting lounges, hotel lobbies, the supermarket and the non-place we inhabit while driving on a motorway. Upon entering non-places, a person is relieved of their usual responsibilities and becomes no more than what she or he does or experiences in the role of passenger, customer or user. Thus, "Alone, but one of many, the user of a non-place is in contractual relations with it (or with the powers that govern it). He is reminded, when necessary, that the contract exists...The contract always relates to the individual identity of the contracting party. (Auge, 1995: 101)

5. The theme of London's specialization is taken up by the Greater London Authority in such publications as:
6. Following Reckwitz (2002), a practice is defined as a routinised form of behaviour. It has several elements which are interconnected, and which can be understood as forms of performativity. They include: forms of bodily activities; forms of mental activities; objects (artefacts, machines, tools, etc.) and their use; background knowledges in the forms of understanding (i.e. recognition of context, context markers and context hierarchisation); know-how; states of emotion; and motivational knowledge. See Reckwitz 2002 and Kelly and Jones 2006.

7. See, for example, Leicht, K. T. 1998 Work (if you can get it) and occupations (if there are any)?, Work and Occupations, 25 (1), 36-48.

8. It is this disjunction which opens up the tortuous discussion of the relationship between work as production, with its correlated productivity measures, and work as performativity, where (a) one acts as if self-employed while fulfilling work that would have been done at one time by an employee, but which has been made into a flexible form of employment, and (b) one brings skills into play that may be well outside the contract terms.

9. In the context of architecture, the theme of disjunction is pursued by Bernard Tschumi who recognizes the importance of the displacement of architectural and urban spaces and human, social behaviours in those spaces. See Tschumi 1994 and Polsani 2003

10. Information about the King's Library Tower can be found at http://www.bl.uk/collections/early/georgeiii.html

To quote the British Library website, the King's Library collection,

"is considered one of the most significant collections of the Enlightenment, containing books printed mainly in Britain, Europe and North America from the mid-15th to the early-19th centuries." http://www.bl.uk/collections/early/georgeiii.html
11. Leatherbarrow (2005) points to the importance of a topographic model for understanding the performativity of built environments. He argues that, in any given site, at any given moment, a building's topographical structure requires that some places be recalled, others anticipated. Like events, topographic landscapes contain unforeseen potentials, and show these potentials in the various ways they offer themselves to perception.

12. Day and Letts (1997) contend that,

"...complexity is characteristically found in systems that are able to exist at the boundary between order and chaos and strike a balance between these two regimes that is never quite stable and yet never quite turbulent...As Waldrop described it, "the edge of chaos is the constantly shifting battle zone between stagnation and anarchy, the one place where complex systems can be spontaneous, adaptive, and alive.""


14. For a sense of how the occupants of the Innovation have adapted and personalized the space to make it habitable and workable, see the background shots on the Bop! project website. [http://www.makingsenseofspace.com](http://www.makingsenseofspace.com)

15. For example, see the work of Jack Tanis and Francis Duffy in this regard, who move a long way towards the concept of performativity while still maintaining the vocabulary of productivity in discussing different kinds of work styles, new kinds of organizations and new patterns of space use.


References


Leicht, K. T. 1998 Work (if you can get it) and occupations (if there are any)? *Work and Occupations*, 25 (1), 36-48.


