

The Play's the Thing

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Introduction

For very understandable reasons phenomenological approaches predominate in the field of sensory urbanism. This paper does not seek to add to that particular discourse. Rather it takes Rorty's postmodernized Pragmatism as its starting point and develops a position on the role of multi-modal design representation in the design process as a means of admitting many voices and managing multidisciplinary collaboration.

This paper will interrogate some of the concepts underpinning the project [1] to help define the scope of interest in multi-modal representations. It will then explore a range of techniques and approaches developed by artists and designers during the past fifty years or so and comment on how they might inform the question of multi-modal representation. In conclusion I will argue that we should develop a heterogeneous tool kit that adopts, adapts and re-invents existing methods because this will better serve our purposes during the exploratory phase(s) of any design project that deals with complexity.

Conceptual context

The major hypothesis of the Sensory Urbanism project uses the term 'appeal' to index a rich conception of aesthetic responses. In the classical sense of 'aesthetic' the visual is not privileged; stimulation of any of the senses can elicit aesthetic responses. The aesthetic calls to the intellect and not vice versa. 'Appeal' then appears an appropriate term to embrace the breadth of possibilities entailed in reflection on aesthetic responses.

However, use of the term 'convenience' suggests a reductive ambition for the qualities of urban spaces; this is inadequate. Social difference gives meaning to much of existence. To admit the richness of everyday practices urban space needs *ambiguous*, *reflexive*, *liberatory* and *communicative* qualities, which do not entail convergence of means; they include the inconvenient. Not everything can have a clear meaning because people have very different perceptions. The *ambiguous* embraces what it means to be confused, annoyed, offended, and even assaulted by the affordances of urban places. The more regulated the public realm the more likely it is that the excluded increase in variety if not visibility (Sennett, 1990, 150-68). In a perverse way the liminal is of greatest interest. To those excluded, the space between what we attend to invites colonization, to those included it invites transgression (Woods, 1992). The *reflexive* nature of the urban environment reminds us that designers' intentions are eventually countered by inhabitants' behaviour, that place making can be too prescriptive; the loose programming of space is not a crime unless it remains non-participative. In post-industrial, post-humanist discourse the value of self-enhancement has been added to those of free-expression and self realization

(Gray, Mentor & Figuerda-Sarriera, 1995, 3). The *liberatory* motive associated with radical humanism (Burrell & Morgan, 1979, 32-3) suggests that the best way to counter the human propensity for habitat destruction is to restore responsibility to the inhabitant by making the experience of consequences immediate and comprehensible. In this way behaviour adapts to shape a more sustainable environment and the environment adapts to shape more sustainable behaviour. In this context the *communicative* refers to the overarching concepts of fluidity and renewable purposefulness. The dynamic responsive condition of an inhabited environment depends upon rapid, simple, largely involuntary, networks of mutually regulating forces that serve to sustain the environment in dynamic equilibrium. In the confusion of urban existence pragmatics comes into play.

An uncritical notion of 'convenience' signals anaesthetic legitimacy, a license for the senseless, insensible and inhumane. If redescription is required the term 'liveable' might be considered, although I will not digress by doing so here. What I wish to pursue is the representation of multi-sensory possibilities for urban space in the design process, something well within 'the expanded field of drawing' referred to by Elias and Vasconcelos (2008). But first I will question the assumption that by adopting or adapting an appropriate method of representation we bring anything under 'control'.

Propositions

Sometimes communication is about striving for control, for stable meaning; sometimes it is about deferring control indefinitely and allowing alternative meanings to emerge. I offer two propositions.

1) Adequate representation allows control to be deferred indefinitely during the exploratory, 'divergent' phases of a design process. Bringing things under control is essentially a 'convergent' task of specification and is much less of a problem. Indeed, there will be no worthwhile specification problem unless creative exploration successfully resists reduction of the design to spatial and visual terms. Specification easily succumbs to good project management, i.e. in organizing conventional means of documentation and communication.

2) By looking at the variety of 'drawing' techniques commonly used in the creative disciplines, we can identify representational tools that can be adopted, adapted and reinvented to meet the needs of urban designers.

Methodology

Collaborative exploratory designing involves a particularly dynamic process of sense making. In pragmatic style, therefore, design can be seen as a genre of 'humanity's ongoing conversation about what to do with itself' (Rorty, 2007, ix). Design is not a question of truth but of quality. Design is best at playing out the consequences of the 'what if?' type of question. Designers concern themselves with exploring the realizable possibilities for change and communicating their qualities and realizability. In this limited sense design is

prescriptive and, because it deals with the ambiguity and fluidity of things in the process of becoming, representation works with metaphors rather than absolutes. The most important facility offered by the iconic image is access to the rich array of associations that authors and audiences have in their minds. It can 'point towards original resemblances, whether of quality, structure or locality, of situation, or, finally, of feeling' (Ricoeur, 2003, 224) but to arrive at some shared meaning everything must be played out in conversation. This sense-making activity is interminable; however, individuals and groups do not have an unlimited capacity to cope with representations. In practical situations complexity is contingently attenuated to some degree or another; not only do we work with metaphor, these naturally agglomerate into working myths (Carter & Jackson, 1984, 523 & 528).

Ashwin argues for a semiotics of design drawing starting with the observation that 'iconicity does not provide a comprehensive account of drawing in relation to design' (1989, 201). Design drawing tends to elaborate a hybrid sign system by combining elements of *indexical*, *iconic* and *symbolic* quality. In design specification drawing tends to be conventional and *monosemic* in intention. But design exploration is more broadly communicative and associated drawings are more or less *polysemic*. Ashwin discusses drawing in terms of six functions of communication; it may have a *referential*, *emotive*, *conative*, *poetic*, *phatic*, or *metalinguistic* function or function in several of these ways. Presentation (not representation) implies unambiguous and persuasive communication, a compromise between *referential* and *emotive* functions combined with the *conative*. The multi-functionality of design drawing, its dynamic *polysemic* qualities, and its hybridity as a sign system, make a semiotics of drawing a complex but potentially subtle means of analysis. The primary interest I wish to explore here is how the design process functions through drawing and a range of necessary supplements in writing, speech and gesture.

Representational tools: towards a heterogeneous design tool kit

I have selected work by artists, designers, choreographers and composers (but not architects) hopefully to attend to the less obvious. The trajectory of many contemporary artists' technique is rather unpredictable. Very often the 'art' is not in the mastery of particular media but in the invention, filtering and transformation of new means of expression.

The coincidence of synaesthetic competences and programmatic interests produces many interesting results. For example, Ralph Steadman's expressive model of the set design for 'Crashed Car' utilizes unexpected model-making materials to signal a layer of sensory meaning that would be missing in a more orthodox presentational scale model. Its *emotive* functionality elicits haptic sensations just from looking; one can almost smell the accident (Goodwin, 1989, 187).

Another innovative technique achieves a more extensive sensory simultaneity. It involves layering disparate conventional elements to produce a hybrid document. In temporal terms Tom Phillips libretto for 'Othello' does this to intensely *poetic* effect by combining musical score, script, stage direction and visualization (Hall & Burnett, 1999, 8), yet it also succeeds in combining

referential and *conative* functions, and in relation to the original musical score, a *metalinguistic* one. In spatial terms Lev Nusberg's 'Plan for Kinetic Environment for the Seaside Area of Odessa' (1970) presents an event landscape persuasively by inserting indications of movement, sound, texture and smell into a conventional plan drawing (Henri, 1974, 131-2).

Sometimes the artist will subvert the conventions of a drawing system to better communicate an idea. For example, Juan Downey's 'With Energy Beyond These Walls' (1971) connects the elements of an installation like components in an electronic circuit. Although *referential* in function and closer to specification than presentation, the drawing is more openly *polysemic* than one might expect; it dispenses with coherent perspectival space in favour of a looser diagrammatic connectivity and combines visual representation of physical things, invisible fields and sensory elements with descriptive annotation (ibid, 73-4).

Most theatre designers use model making to facilitate creative dialogue. The empty stage is recreated to scale and its interior used to develop ideas in full colour and naturalistic detail. This iterative process involves director, writer, actors, lighting technicians and others directly in discussing and manipulating physical content. Andrew Storer's design for the ballet *Romeo & Juliet* (1990) shows the result of collaboratively refining the orchestration of space, movement, sound and light (Burnette & Hall, 1994, 70). In the earliest stage of the process *emotive* function may predominate as the designer makes broad interpretive gestures with expressive materials but this quickly turns over to a *referential-conative* function as ideas of structure, space, movement, light, sound, period feel, etc. begin to emerge. Richard Bidgland's sets for *Resident Evil* were designed as composite structures and built in the hanger-like space of a film studio stage (Anderson (dir), 2002). Simpler white-card models were used to focus the team's creative attention on manipulating form, structure and space. Arguably their key function is *metalinguistic* because they supplement and clarify ideas initially visualized in and annotated on storyboards.

Some theatre designers make extensive use of storyboards. Typically a sequence of sketches, that represent the whole stage as seen from the best seat in the house, is annotated with information about sound, smell, movement, special effects and lighting. Bob Crowley finds that he gets a more collaborative response from those involved creatively in a production using storyboards rather than a model. The sketch storyboard of the 'The Plantagenets' (1988) shows how rapid and dynamic the process can be (Goodwin, 1989, 55). Michael Spencer's storyboard for 'A Midsummer Night's Dream' (1993) emphasises action and atmosphere (Burnette & Hall, 1994, 60). Multifunctionality is apparent in these examples as *conative* function combines alternately with the *referential* and the *emotive*.

Model and storyboard facilitate development of the overall stage design. Other techniques are used to focus on detail. Character development, for example, relates closely to costume, props and set decoration. For a touring theatre production of 'Street of Crocodiles' (1993) Rae Smith used close observation of rehearsals to fix characters and generate a sense of setting (ibid, 86). The annotated sketches are *emotive* in the sense that they record the designer's

aesthetic and intellectual responses; they are *phatic* in that they signal to the company that something designerly is happening. They are also *metalinguistic* insofar as they supplement and clarify costume designs and model details. The same interpretation works for the 'character bible' Anna Asp builds for each principal cast member in a movie production. Each character in 'The House of Spirits' (1993), for example, is captured in a montage of textures, colours, patterns, fragrances, flavours, photographic images, found objects, and natural and synthetic materials (Ettegui, 1999, 116-17). The construction of these very specific identities compares with the outcomes of psychographic studies. For example, the design of the Bluewater retail complex was informed by an extensive programme of focus groups designed to reveal the richness of consumers' lifestyles (Baker, 2000, 19-20). This created, in effect, a cast of principal characters with which the developers, retailers and marketers could orchestrate the Bluewater experience.

In Alison Chitty's drawings for 'Turandot' (1997) annotation refers to the embodiment of quite visceral sensory experience in the design of physical elements (Burnette & Hall, 1999, 90). Welfare State's community-based participatory methods similarly realise the potential of place through the embodiment of site-specific ideas. For example, in 'Fragile Gift' the location, a traditional indoor market hall, informs a critical reflection on the commercialization of Christmas shopping (Burnette & Hall, 1994, 117).

Conventional systems used in choreographing martial arts and dance can be by turns openly *polysemic* and *monosemic*. They are very flexible when developing ideas for movement and very precise when recording action as it happens and analysing movement captured on video. The Carter Ferguson system is a simple accurate way of planning swordplay and hand-to-hand combat. It is *referential* and *conative*. Four-column tabulation, a list of letter codes and conventional annotation is used to describe two combatants' movement and contact (website: Fightdirector).

Benesh Movement Notation and Laban notation are the two common notational systems for dance. The Benesh system uses a horizontal five-line stave for each performer. It represents the vertical division of the body into zones associated with the feet, knees, hips, arms and head. It 'respects the dancer's consideration for the form their body makes' and is favoured for choreographing classical ballet. Symbols representing specific body and limb movements are supplemented with a range of expression marks (website: Benesh). Anthropologists, clinicians and physiotherapists use the system for recording and analysing movement because very detailed aspects of posture, dynamics and interaction can be described. Laban notation uses a vertical three-line stave and a palette of geometric symbols. The key differences are in its focus on instructing 'the dancer how to move, what pressures to apply, etc. rather than prescribing the final result' (website: Laban notation).[2] Both systems are available as software packages.

In the second half of the 20th century some composers were particularly inventive in dispensing with the regulated soundscapes of the symphony orchestra and chamber ensembles. Stockhausen's 'Kontakte' for electronic sounds (1959), for example, explores spatial distribution and (real and

apparent) movement of sound sources (Smith Brindle, 1975, 95). Improvisation and chance operations were important in some avant-garde work and this gave rise to innovative notation. Morton Feldman's 'Intersection 1' (1951) and Gyorgy Ligeti's 'Volumina' (1961-2) are examples of simplified notation designed to create scope for interpretation within a precise framework for the ensemble (ibid. 67 & 71). Some scores resemble abstract diagrams or maps and are more indeterminate still. J Levine's 'Parentheses', for example, harks back to Renaissance part songs in layout and evokes the graphics of electronic circuitry and set theory: associations that are quite deliberate on the composer's part (ibid. 90). Guisepe Englert's 'Aria for Tympani' reads like the map of an eventful journey across the instrument's membrane, which is precisely the intention (ibid. 83). There is a clear connection here with Stansfield's propositions for 'physical scores for engagement' (2008).

The concept of the 'sound map' is current in technical applications and Web 2.0 culture. Colour-coded mapping of the noise environment is a service available from organizations such as Cambridge Environmental Research Consultants (website: Noisemap). The Danish Wind Industry Association provides an on-line design tool which calculates noise levels in and around wind turbine arrays (website: Windturbine). There are many participatory web-based projects based on the idea of hyperlinking location-specific recordings to Google Earth maps (website: Soundseeker). One can, for example, find time-dated recordings of animals and ambient sounds (website: Wildsanctuary), and linguistic surveys of dialects and regional accents (website: Soundsfamiliar).

Work by exhibition designers concludes this brief survey because it often entails production of multi-sensory, multi-media, communicative environments. Neal Potter's first drawing for the Agit Prop Train exhibit at the Museum of the Moving Image (1988) is annotated in the top-right corner: 'Evocative sounds of the train running. Smells of the laboratory. Train on rockers to simulate movement' (Matthews, 2007, 29). The reference here to aural, olfactory and haptic elements broadens the *referential* capacity of the drawing and limits its *polysemic* qualities. The drawing represents at least three stages in a collaborative process. Initial discussion between designer, project director and historical consultant inspired the exterior perspective. The interior sketch, drawn on a separate piece of paper, was collaged onto the sheet much later; it adds detail to the experiential aspects of the exhibit. A researcher added the annotation during a creative session. The techniques are simple and very adaptable.

When associated with specification, plan and elevation are conventional types of drawing. But they are also exploited in exploratory design in forms that progress from loose sketch to precise scale drawing. They facilitate collaboration by allowing *emotive* and *conative* functions to emerge as the conversational nature of the design process unfolds. Sketches, photographs and symbolic elements, such as directional arrows signifying movement and coloured rings or tinted areas signifying zoning of content, can be layered over the basic drawing to present the experiential dimension of the design. In the design of the 'Restoration and Conservation' exhibition at Ludwigsburg Palace (2004) Bertron, Schwartz & Frey utilized a range of layering techniques to explore and present the zoning of light, sound and haptics (2006, 95).

Some exhibits use smell for very obvious reasons, such as the Perfume exhibit produced by the Museum of Art and Design in Hamburg in partnership with International Flavours and Fragrances (Website: IFF). In others, however, fragrance is ambient and designed to condition the audience in quite specific ways. This is very difficult to do because there are cultural differences in the interpretation of smells. That Samsung's flagship electronics store, on the upper west side of Manhattan, smells like Honeydew Melon is evidence of very subtle and detailed brand design management (Trivedi, 2006). In the 'Scents of Space' exhibit (2002) Usman Haque specifically focussed on the potential for communication through the orchestration of fragrances in time and space. The drawings of the exhibit describe a three-dimensional space within which each fragrance and duration of exposure is presented using colour-coded blocks of varying size and interval (Bullivant, 2006, 60-2).

Conclusion

Arguably exhibition designers, in exploring a dynamic, sensory and experiential idea of communicative environment, contingently acquire a rather eclectic range of creative design tools. This illustrates, I hope, potential for sensory urban design; it offers the facility for multidisciplinary collaboration, for deferring synthesis and control, and allowing the process to play out its potential for as long as practicable.

An all-encompassing conventional means of representation is not possible or desirable. But it is useful to pursue a holistic and humanistic ambition in environmental design because pragmatically we do better by remaining open to new ways of exploring possibilities and communicating their realizability.

Francis Coppola once described being a film director as 'one of the last truly dictatorial posts left in a world getting more and more democratic' (Bahr & Hickenhooper, 1992). He also welcomed video camcorder technology because he thought that 'for once the so-called professionalism about movies will be destroyed forever and it will become an art form' (ibid.). These sentiments sum up the dilemma facing all creative practitioners involved in complex projects, on the one hand determining the place of creative leadership and on the other the place of dialogue and participation. This can be construed in at least two different ways, as an argument in general between interdisciplinary and multidisciplinary approaches and individually between the comforting illusion of control and the seduction of play.

The *interdisciplinary* approach focusses attention on the individual practitioner and develops through the appropriation of theory and technique. It is healthy only insofar as creative direction is needed. The *multidisciplinary* approach, on the other hand, emphasizes team building and is healthy only insofar as design must deal with complexity, i.e. the rational and non-rational, the large-scale and the interminable. In this context, *co-operation* is inadequate, *collaboration* is requisite, creative conversation in the sense that Rorty recommends: admit many voices and follow pragmatic rules (1989).[3]

Notes

- [1] The 'project' referred to is the ESRC/AHRC funded Sensory Urbanism project undertaken at University of Strathclyde which investigated multimodal methods of representation in urban design and included this conference as one of its concluding events.
- [2] I am grateful to the reviewer of this paper for clarifications quoted here.
- [3] Rorty used the idea of a historically contingent *final* vocabulary (my emphasis) to describe the arena of conversation. This was an unfortunate choice of words actually intended to signal an on-going rather than closed process.

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