

Thinking Places

Non-Place and Situated Cognition

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Abstract. In this paper I address the issue of space from the point of view of two disparate sets of theories: those pertaining to concepts of distributed cognition, and those pertaining to non-place. In the process I consider physical environment, social being and cultural setting, and provide pointers for greater understanding of work environments and designing for mobile technologies that support workers on the move.

Keywords. mobile working; situated cognition; place; non-place

We focus our research on mobile working that is cognitive, that is, working that we commonly describe as requiring thought, analysis, reflection, decision making, composing, writing, and designing, that can be assisted by tools available in the personalised mobile environment. Given the availability of such tools, is it possible for some architectural settings to be more conducive to effective thought than others? Can such environments and mobile tools can be designed to enhance thought? I conjecture that spaces and devices can be designed taking account of their cognitive aspects, though not in a direct and causal way. It is changes in setting, variety of environment, and dynamic movement across thresholds that contribute substantially to the effectiveness or otherwise of the contexts of mobile working.

The question of the cognitive attributes of space is a new framing of an old problematic. Frances Yates indicates the ancient legacy by which orators would use the environment around them to structure and remember the main points of their arguments (Yates, 1966). But this recourse to spatial mnemonics was not purely instrumental. There was also a sense of participating in the divine order. In fact, for Plato, the concept of Intellect was of a supra-individual and divine stratum of coherence into which all of humanity could connect. Thought (as Intellect) was understood spatially through concepts of transcendence. There is also the persistent legacy of the Romantic's drawing on the environment for personal inspiration. The Romantic grand tour was on occasion enjoyed by creative individuals to study, contemplate, and mine foreign and unfamiliar territory. For the newly mobile British bourgeoisie, continental Europe was at one time a territory "to think with," a role also extended to "the orient." As outcomes of the colonial impulse, museums, galleries and specimen gardens fulfill a similar role. Spaces aid thought in the obvious case where one seeks out specific information, such as mummification practices in Egypt, or the leaf pattern of a *Banksia oblongifolia*. But such environments also function as places in which thoughtful associations can be made, and one could participate in a sense of Platonic ordering, and participate more fully in the Thought of humankind (Hooper-Greenhill, 1992).

Situated Cognition

What is thought? According to cognitive theorists (Gregory (ed), and Zangwill, 1987), classical theories of cognition (as advanced by Descartes) place thought, mind and cognition firmly within the organ of the brain. It all happens inside, with the environment providing the distractions or noise, or the environmental conditions that

keep the body in a comfortable state so that the brain can get on with its work. More radical conceptions of cognition however advance a series of propositions that push cognition further and further into the environment. The case has been made well by Rodney Brooks and Andy Clarke (Clark, 1997; Clark, 2001; Clark, 2003) in the context of studies into robotics: “The true engine of reason ... is bounded neither by skin nor skull” (Clark, 1997 p.69). As evidence for their thesis they cite experiments that show how “lazy” the brain is in accomplishing even simple cognitive tasks. The brain’s task is mainly to make connections, complete patterns, and draw on the elaborate “scaffolding” we call society, culture and context: “Advanced reason is thus above all the realm of the scaffolded brain: the brain in its bodily context, interacting with a complex world of physical and social structures.” The role of the brain is to “support a succession of iterated, local, pattern-completing responses” (Clark, 1997 p.191).

The language used by these researchers into the philosophy of robotics is not architectural, though they share an interest in the theories of Martin Heidegger and Merleau Ponty, who write about the human condition as primarily one of “being-in-the-world.” What are the implications of situated cognition for architecture? There is no simple correspondence between environment and thought. The theories of situated cognition do not suggest direct mappings between thoughts and architectural interventions. So we can dismiss the idea that architects can create places that make the inhabitants more intelligent, thoughtful, passive, active, better behaved or creative. To assert as much is to buy into long-discredited theories of environmental determinism. Environment and cognition involves a much looser fit.

How do theories of situated cognition inform concepts of mobile working? According to a naïve kind of situated cognitivism, the mobile worker (designer) working on their laptop in a park sees a brook, a bicycle, and a flower bed, and performs a pattern completion exercise to infer a thought about information flows and colour, that may or may not be relevant to solving the problem at hand. Here the environment acts as a source of associations, metaphors and stimuli through which to think. But this account already assumes cognitive autonomy on the part of the mobile worker. Situated cognition presents the more radical proposition that our environment is already structured in a way that assists certain outcomes. In other words, the spatial operation of cognition is reflected in the fact that we are culturally predisposed towards parklands as places of quiet contemplation and inspiration; our entire perception of such spaces is culturally loaded; the objects around us, natural and otherwise, are caught up in networks of interconnections, about which any particular instance provides a reminder. Sitting in a park while reconciling the office accounts suggests a very distant coupling between thought and environment, until we reflect that the park and its history are brought about by the same social and cultural processes. Through our participation in culture we are as much at home with spreadsheets as parklands, and the physicality of the park is just one part of this cultural scaffolding within which thought is constructed.

Place and Cognition

Much research in architecture, urbanism and geography addresses concepts of place (Relph, 1976; Norberg-Schulz, 1980). Places are rich, meaningful environments in which we experience a sense of being at home. A place is often distinguished from a mere space, which is a measurable, scientific entity. Places are thought to be under threat from increasing standardisation, uniformity, industrialization and globalisation. The rhetoric of place exhorts architects to be concerned with place-making, rather than simply the formal configuration of patterns of spaces. Place-making is partly an antidote to a strand within modernism towards internationalisation, where one place in the world is ostensibly the same as any other.

Is there a relationship between place and situated cognition? The literature on place concerns itself less with issues of cognition than memory and meaning. A place is redolent with meaning and significance. We conjecture a simple parallel. Places are those physical environments in which there is a ready complicity between culture, sociability and human practices. In Clark's terms, in a place the cognitive scaffolding is in place, the resources by which the kinds of problems humans frame and resolve are readily to hand. The architecture and the artifacts within it provide the memories, the significations, the signs, the visual and spatial languages, and the sounds, through which all the other social, cultural and linguistic components can operate. In other words the ensemble that is place is conducive to the operations of thought, appropriate to the condition in which the human finds herself in that place. For the mobile worker, a place is a space for thinking with, or, in the language of situated cognition, a space in which the cultural, social and physical scaffolding is in place for effective thought to occur, by whatever agency.

The cognitive resistance of non-places

Are some environments resistant (or neutral) to the processes of cognition? In contrast to places, non-places are "dumb" spaces, in which the chief cognitive demands are way-finding, following a bureaucratic procedure, or mere consumption (Augé, 1995). These spaces tell us what to do, through literal signage, and the configuration of circulation routes, gates, controls, and counters: characteristics of airports, malls, supermarkets, motorways, hotels, banks, call centres, and certain bureaucratic spaces. In contrast to traditional places, where orientation and belonging are predicated on the knowledge that accrues through sedentary and localized inhabitation, non-places are designed to be experienced by transitory and mobile subjects: shoppers, commuters, corporate nomads, tourists, itinerants, migrants, virtual workers, and designers on the move. Augé suggests we enter into a contractual relationship with non-place when we cross its thresholds and engage with it. Our visual field is littered with directions and instructions, while aurally we are pacified with musak, chatter, and white noise. Mobile workers, such as designers, increasingly find themselves working in these non-places, as they complete drawings or designs on the train, the airport lounge, the coffee shop, and travel to meetings and conferences. In turn aspects of non-place are brought back into the office or studio, if they have one. The office is sometimes an adjunct to peripatetic design in non-place, or subservient to the exigencies of time zones, global commerce, and international regularisation.

If we assume the individual as the unquestioned agent of thought then non-places tell us what to think and what not to think. But more precisely, in the language of situated cognition, non-places implicate a limited range of human action, being and engagement. Thought is not encouraged beyond the limits of the space's own particular cognitive project, typically limited to wayfinding, getting crowds from A to B, carrying out certain transactions (purchases), and herding people through a process (such as getting on a plane). Non-places deploy signs and symbols in the supposedly unambiguous language of the propositional clause ("wait here"), rather than relying on the rich layering of custom, history, and meaning found in places. A sign saying "wait here" would be superfluous in the vestibule of a cathedral or temple, as the appropriate behaviour or action is already inscribed in the architecture and ritual practices of the place. Neither would we require a text saying "think of god," or "consider your finitude" in such places. In fact it could be said that we are already caught up in such thought by virtue of being in the sacred place or participating in its rituals. According to certain ethnologists, such as Eliade (Eliade, 1965), ritual is a kind of thinking that often bypasses the necessity for personal reflection or personalised knowing or belief. By way of contrast, our participation in the un-aspirational thought of non-places operates

in a generic way, easily adjusted to the contingencies of the particular process by an adjustment to the signage. You can wear an iPod in a museum or church, but it is fair to say that as places for mobile working, non-places *require* personalized digital enhancement to provide the cognitive scaffolding for thought that takes one beyond the thoughts of the space. The mobile worker seems to require the iPod, mobile phone, and laptop in order to compensate for the cognitive deficiency of non-places.

Thresholds as Thought Events

Theories of situated cognition point to thought as active. Thought (and by extension, mobile working) is not primarily a private inner conversation, but requires tools, devices, and interventions. The most valuable use-object is verbal language, but as designers we can think of any intervention into the environment as a thought act. We are constantly making changes to the environment.

As the surrealists taught, thought events can have this character, of placing objects out of their usual contexts to produce a set of jarring and unusual relationships (an anvil and a sewing machine, an iPod and a crucifix). The metaphors used by researchers into situated cognition assume a certain stability and evolutionary progression to more elaborate and effective scaffoldings for thought. But the scaffolding can be rattled. No less so than by the designer moving into and out of environments. To place a worker (designer) in a new setting, eg to design part of a hospital while sitting in a café at the zoo, may certainly take thought into new territory, but it is also the movement itself that provides mobile working with its cognitive space. From the point of view of design, thought happens at the thresholds, which places the mobile worker, as a crosser of thresholds, at a particular advantage. Clark alludes to the boundary aspects of cognition, but when he turns to design readily succumbs to the allure of seamlessly melded technologies (merging of machine with body). From our point of view design is abetted by a more agonistic (violent) disposition towards the edge condition (Coyne, 2005).

Conclusion

My conclusion is that spaces are configured and signed, not just to “convey meaning,” as containers for cognitive agents (people), or embodying ideas (or ideologies), but as actively complicit in thought, and we can design and deploy products, devices, systems, apparatuses, and handheld technologies that support “spaces to think with,” particularly by attending to spatial transitions, boundaries between conditions, and thresholds.

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