

Spatial Psychology;
Instinct to
Civilisation

By Luke Riggall.

A critical view of the way in which adults un-learn how to inhabit architectural space
from the instinctive nature of child behaviour.

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Credited Illustrations

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Introduction

The understanding of how humans perceive and imagine space, objects and time are fundamentally important to the design and creation of the built environment. To create an environment we must first understand how the environment is consumed. A complex relationship with an ever changing hierarchy of perception and imagination, perceived reality and mental imagery or 'virtuality', the present and the past memories. The term 'instinct' refers to the natural way of acting or thinking. Our primitive instincts affect the way in which we cognitively perceive and produce space, in turn affecting our use of space and objects. Instinctive behaviour differs from the civilised as it is not guided by memories of previous experiences, and instead allows the living being to make a decision purely based upon the moment they are situated within. Boden states from Piaget's writing (1979, p41), "intelligent creatures construct their own meanings, rather than passively picking them up from the world". Yet Piaget suggests that adults operate with fully developed intelligence and children are primarily driven by instinct. If we believe that intelligent creatures create their own understanding instead of imitating others actions, then surely it is the child that is intelligent, acting through instinct to subjectively understand their environment themselves. This essay critically discusses the development of environmental understanding from intuitive children to civilised adults.

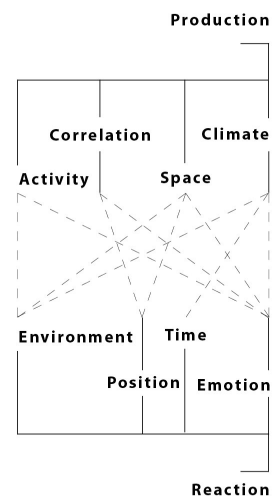
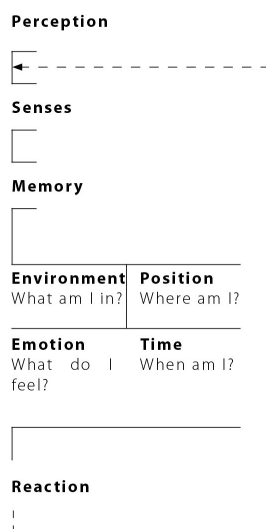


Figure 1: The Perception and Production of Place

Instinctive behaviour of children to the un-learning of adult civilisation

Children between 2 and 7 years of age appear to have an innate ability to perceive spaces and objects more truly to their purest state. “The structural features of space and object-identity which are learnt by the exploring baby somehow provide the organisational basis of the schoolchild’s more abstract, logical schemes”, (Boden, 1979, p46). In contrast the civilised ‘intelligent’ adult will perceive spaces and objects of pre-determined use where each has a specific purpose and way in which it is supposed to be used according to modern society.

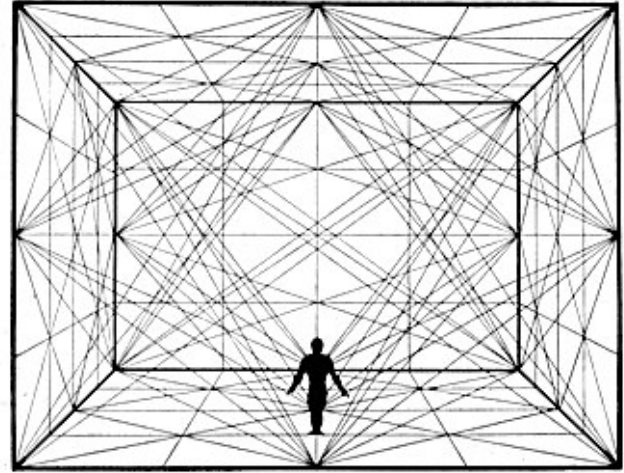


Figure 2: Figure in Space with Plane Geometry and Spatial Delineations

To an adult of developed intelligence a chair is a surface in which to sit, however to an uncivilised instinctive child it is an abstract object of pure form in which the child can place themselves under, between, in front, behind or on top in various ways. The child may instinctively employ one of these positions relative to the present situation and context. For instance, if the child is scared they could hide underneath for shelter, or if the child requires shielding they may position themselves behind the chair and the chair now becomes an obstacle, likewise if the child needs a further field of view they may stand on top and the chair becomes a lookout vantage point. In the film *Aliens* (1986), a character nicknamed ‘Newt’ is a young girl who has solely survived in a hostile environment where everyone else was killed. Newt is found by a rescue group and at one point is picked up and placed on a seat and fastened in securely, however she quickly removes the seat harness and sits in a compact position on the floor in between two chairs with her back to the wall (*Aliens*, 1986, 1:16:30). The little girl, ‘Newt’ survived because her understanding of space was not defined by the civilised teachings of urban life. ‘Newt’ was able to survive using her natural instincts, reducing the geometry of her environment down to its physical perception with no further predetermined knowledge. “How did you survive” the adult character ‘Ripley’ asks ‘Newt’, “Don’t you think you will be safer here with us?” ‘Ripley’ asks, ‘Newt’ shakes her head to say

no, (Aliens, 1986, 1:03:00). “This little girl survived (longer than that) with no weapons and no training” (Aliens, 1986, 1:27:30). As they are trying to escape and all the adults seem to think they are stuck in a sealed room with aliens on the other side of two doors, ‘Newt’ shouts “Ripley this way!” as she scurries through an air duct (Aliens, 1986, 1:58:00). This instinctive perception of the environment allowed ‘Newt’ to see air ducts as passages where doors were the only option a group of adults could notice. Similarly, ‘Newt’ identified beds as visual barriers choosing to sleep underneath instead (Aliens, 1986, 1:46:00) which saved the life of both ‘Ripley’ and ‘Newt’.

Architecture and society teaches children how to behave, interact and therefore how they perceive the built environment. Boden states from Piaget’s writing (1979, p39), “Premature teaching may be worse than useless since it may mask radical incomprehension by spurious ‘understanding’ and so divert both teacher and child from the imminent structural developments that should be claiming their attention.”. This appears to hint towards the learning of the environment through architecture and society as negatively influencing people’s true understanding of spaces and diverting away from the development of fundamental and conceptual cognitive structures. Instead, masking false understanding with a comprehensive level of indoctrinated society. This effectively numbs the instinctive connection between people and place and instead informs them, for example, that they should sit here, lay there and walk around this, as you have learnt to conform to.

Instincts are not logical or rational and they are often full of the impossible. The intuitive child does not fully understand the environment they exist in, the laws of physics and constants within life. Yet instincts encourage experimentation and interaction, they reveal the primal level of response to a situation in which we are free to generate ungovernable actions. “Either consciously or unconsciously, the work attempts to trigger that first reaction, that fraction of a second in which we are not in control and are not being controlled.” (Blaisse, 2009, p87). This is a counteraction against our learnt knowledge of the world we inhabit and a strategy towards the biologically spontaneous. “To start from zero and reintroduce the invisible, the subconscious, the action-reaction: the sheer biology of things.” (Blaisse, 2009, p87). It is hard for us to truly imagine an environment *designed* for pure instinct, full of irrational responses oblivious to the constants of life. Perhaps the memories we remember as a child are the

closest we can visualise. Seeing a gap between two sofas as a den and as a more comfortable space than the sofa itself. This perception of the impossible. "One can't believe impossible things,' a Piagetian might reply that one can - provided one cannot understand that they are impossible." (Boden, 1979, p43). "For Kierkegaard, it is clearly subjective truth that counts in life. How we believe matters much more than what we believe, since the 'passionate inwardness' of subjective adherence is the only way to deal with our anxiety." (Kierkegaard*). Therefore an instinctive environment could be full of the impossible, the uncontrollable reaction, illusions we would believe for a split second were real.

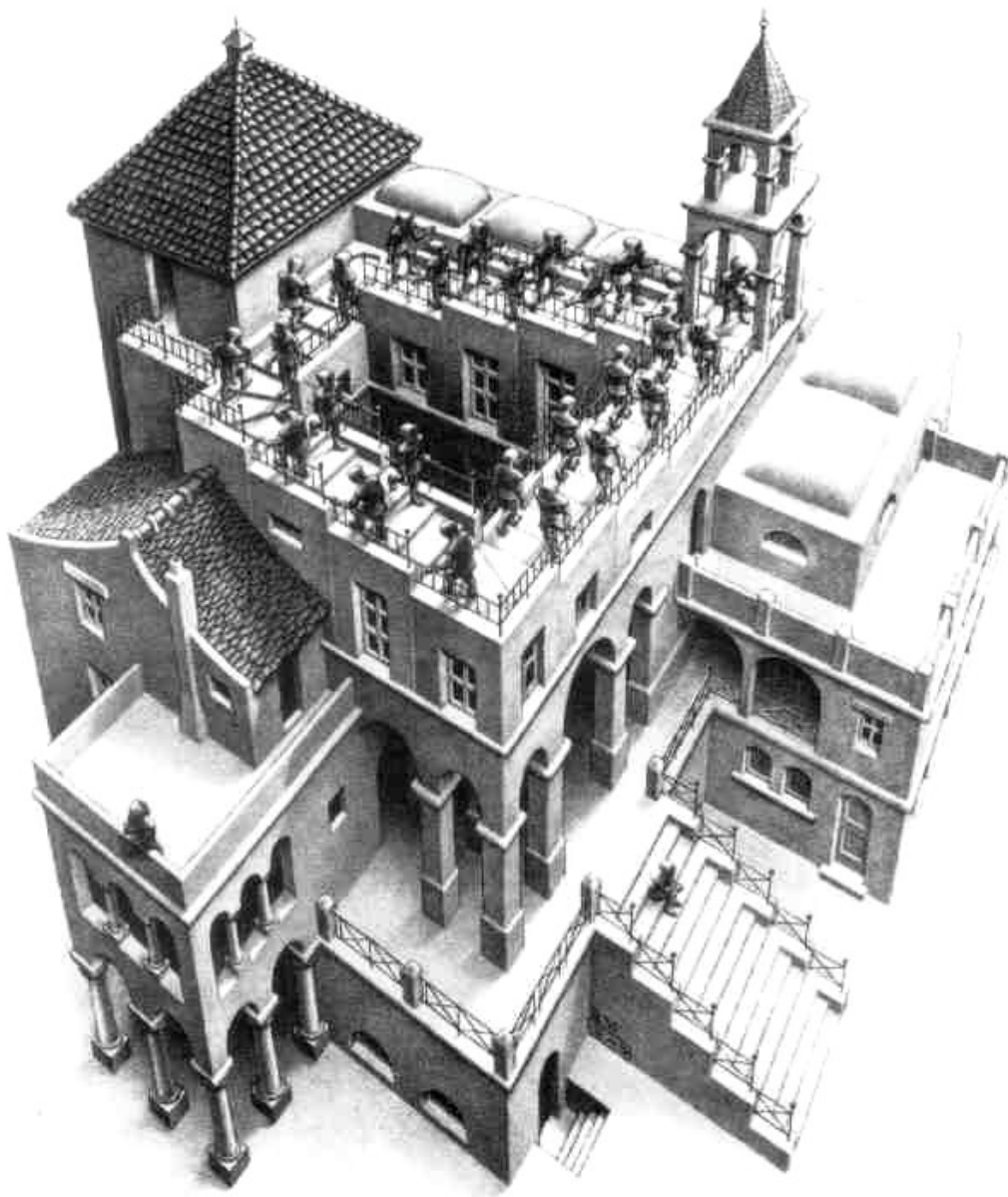


Figure 3: Escher's Rising Staircase



Figure 4: Floor Tiles of the Basilica of St. John Lateran in Rome

As a person develops over time from a child to an adult, their cognitive hierarchy of experiential data shifts between perception and imagination. A child experiencing a new situation in isolation would have no previous understanding to guide them and instead rely purely on their physical perception as they explore. In contrast an adult experiencing a situation they have previously encountered would draw from this memory generating mental-imagery to help them understand and therefore perception instead acts a trigger for past experience. “But no matter how strictly we try to control these environments, a primal level of memory continually exists within our minds. When something triggers this memory, our first

reflex will be typical and immediate, because, like all living creatures, our first reactions to situations are developed in the first three years of our existence. For a fraction of a second - before our brain takes over - we will always react without thinking.” (Blaisse, 2009, p87). This hierarchy of data changes through development, shifting from perception first as a child to the imagination and memory taking precedence as an adult. “Thinking about doing something is usually swifter and often safer than doing it, which is doubtlessly why the semiotic function has evolved.” (Boden, 1979, p53). Consequently, adults predominantly rely on their imagination, their mental-imagery, to experience space. Adults believe they already fully understand the environment they exist in since they have been in a space similar at a previous time in their lives. This previous understanding does not have to be from that exact place but instead would draw together elements from numerous memories. This psychological process could create a barrier preventing developed adults from engaging, interacting and rediscovering environments. This being said, the learnt intuition of people allows spaces to be designed to encourage spatial engagement utilising predetermined responses.

Learnt intuitions are acts in which we unwillingly trust our subconsciousness to guide us through a space or encourage a preset action. For example a handrail may lead a user through a series of levels and provide a natural guidance to where they should walk. These elements are easier to incorporate into a designed environment; where inhabitants can experience a space in the way it was designed to be engaged with without first teaching them how. Exploiting constants in which adults have learnt to understand through experimenting in life. This allows the built environment to flow and function as an intuitive unconscious space for instance provoking and understanding of natural orientation through the use of selected views of the external environment, or the way daylight is channelled into interior spaces. As well as other predictable interactions such as the use of invariable elements such as switches where people *will* press if they wish something to happen.

Architects may use instinct to a certain degree within their proposals as well as learnt intuition to allow the space to function as it were designed to. “Guided by instinct and intuition and free from the constraints of theory and fashion, (Renzo) Piano likes to think of his architecture as the sort of thing that might be created by an intelligent craftsman making the best use of

all that is available, including personal skill. His quest is for a 'natural' architecture, that feels right, that is at home in its setting and in which you feel at home." (Buchanan, 2012). Here Buchanan discusses a balance between instinct and learnt intuition within Piano's architecture, and stating Piano's apparent quest for 'natural architecture that feels right' going on to say "his is the architecture most likely to be a stepping stone to that future". Should we continue to teach humans from a young age how to experience the pre-determined spaces designed and created in urbanism or perhaps we could learn to in-part design the built environment to instead have a deeper connection to the human instincts. A natural, subjective, ungoverned, subconscious encouragement to engage with an environment.

A design studio called 'Inside Outside' proactively attempts to create spaces which relate to basic human instincts. Figure five shows an acoustic wall system which uses bristles fixed to a reflective backing material. The studio claims it is a perceptually boundless space, where the inhabitation would not understand the physical limits. This could trigger an instinct to explore the wall, to touch and interact enabling visitors to discover the unknown for themselves. The interventions that the 'Inside Outside' design studio create are subtle and relatively minor when compared to the rest of the buildings they are set in. This being said their projects aren't without merit and represent an active involvement to introduce the instinctive nature into the built environment.



Figure 5: Acoustic Wall Treatment for Mercedes Benz Museum, Stuttgart, Germany

To truly achieve an instinctive environment is an incredibly difficult task which requires every space, every material, every use to be so abstract and disassociated with any other experience previously explored. To allow the tangible perception of reality to take over completely, isolated from the infectious memories of imagination. “No matter how strictly we try to control these environments, a primal level of memory continually exists within our minds.” (Blaisse, 2009, p87). The only solution to this would be to vary and redefine spaces and objects to a level which is unrecognisable in every sense, forcing the user to resort to instinct over imagination, first hand experimental perception over knowledge. “Reinventing the qualities of light, scent and texture, and choreographing the movement of object and viewer, either consciously or unconsciously” (Blaisse, 2009, p87). To allow the user to believe the impossible, boundless illusions in which they can only further engage with to interpret for themselves. “Let’s start regulating processes in a less obvious, visible way and begin shaping environments that will evolve into things unforeseen.” (Blaisse, 2009, p87). “... children would learn to govern themselves, a skill they would take into adulthood.” (Penner, 2013).

“ ‘There’s no use trying,’ said Alice: ‘one *can’t* believe impossible things.’

‘I daresay you haven’t had much practice,’ said the Queen.

‘When I was your age, I always did it for half an hour a day. Why, sometimes I’ve believed as many as six impossible things before breakfast.’ “ (Carroll cited by Boden, 1979, preface)

Conclusion

An instinctive process or act is one that is pure, explorative and ungoverned by life and society. It allows a simple but intense relationship between people and place to encourage interaction. "The pleasurable intensity of my response to certain buildings, seen for the first time, suggests to me that they must somehow correspond to a model which already exists deep inside me." (Marc, 1977, p7). Instincts are the raw, uncontrollable, curious response to the unknown. Yet it is the process in which our cognitive structures develop and the way the human brain works that inhibits this investigative instinct for this is how we learn; thinking is faster than doing (Boden, 1979, p53). This being said, architecture can in fact achieve a certain level of instinctive environments; spaces which push the boundaries of what we understand, spaces full of unknowns, redefinitions of the recognised and spaces which force out the uncontrollable instinct to touch, see and examine spaces for what they truly are. However there will always be the underlying connection to past memories of experience as we try to understand the unknown through previous encounters, but for that moment we will be as close to the primitive instincts of a child as we can ever be again.

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