

## Articles

Shaun Murray

Abducted ground

### Abducted ground: The ineffaceable Beaduric's Island

Shaun Murray

<https://orcid.org/0000-0003-4887-1684>

The Bartlett School of Architecture, University College London

shaun.murray@ucl.ac.uk

#### CONTRIBUTOR'S DETAILS

Shaun Murray, ARB, has been the founder and editor-in-chief of the peer-reviewed journal *Design Ecologies* since January 2011. The journal is published in print and online bi-annually through Intellect Books. *Design Ecologies* has been used to develop the field of research ENIAtype. Dr Murray is developing a design research field entitled ENIAtype, which is concerned with the interrelationship of ecological, notational, instructional and aesthetical types in methodologies of communicating architectural design. The research unpacks the totality or pattern of linkages between drawing architecture and environmental constraints. The focus is on the art of transfer or conveyance from one place to another by simultaneously taking into account the human body and its surroundings.

#### Abstract

This article illustrates some typical occupational modalities of drawing by abductive processes, involving the design of ecologies through chance and discovery – perhaps

through radical innovations – in architecture. First described by the American philosopher Charles Sanders Peirce, abductive processes start with an observation or set of observations, then seek to reach the simplest and most likely conclusion from those observations. To design an ecology is to design a system of parts from things, creating a new kind of contextualism. This may not seem radical nor innovative, but the principle of symbiotically designing an ecology for a range of scaled interventions over time using the same context starts to become interesting. From drawing and sketching what you can see in the actual context for a design proposal, to then redrawing and composing the observational drawing in a studio, to the time taken to experience and reflect on the spaces drawn towards making physical objects from the forms resonating as the drawing develops, many modalities occupy a drawing as architecture. These could be viewed as a form of ‘possible worlds’, anticipations, opportunities to shape the drawing world and act in it. It could be of help in prefiguring the risks, possibilities and effects of the architect as the editor of situations in the architectural drawing, and in promoting or preventing broad rules of translation. Creating ethics means creating the world and acting in it, in different (real or abstract) situations and problems. In this way, events and situations can be reinvented, either as opportunities or as risks that lead in new directions. The second part of the article describes some of the ‘26 rules for translation’ through drawing related to the design of ecologies through chance and discovery.

### Keywords

occupying drawing

dialogue

inhabitable mandala

ineffaceable illumination

abduction

editor

architecture

Figure 1: To have the possibility of navigating back and forth with discretely fitted custom-designed handles of sponge-like complexity, Battersea Reach, River Thames, London. Shaun Murray, Niche Constructions, 2017.

## Occupying drawings

To occupy is to reside, take up space or time, be situated within or hold a position; it is to keep yourself busy or distracted by doing something. To ‘seize’ other words, it is to engage, involve, engross, preoccupy, divert, immerse. The occupation of drawing in architecture has a vast unwritten history. From Frederick Kiesler’s (1939) ‘On Correalism and Biotechnique’ in the 1930s to the publication of ‘Reflexive Architecture’ (Spiller 2002) in the 2000s, architects have adducted drawing and occupied it to investigate fresh ideas of speculative practices, investigations and innovations.

The contemporary ground of abduction is the result of both modern-day processes and historical legacies. The design project tries to piece this all together and provide a time dimension. It is rather like detective work: information is provided that has been laid down, then the task is to investigate all the potential reasons why that information is there. Through my practice, I am working to create a better predictive ability in unpacking the methodologies used to design and communicate architecture as a

contemporary spatial practice. We have been very concerned about the climate change that has occurred over the past century or two, but we are dealing with a system that moves to the beat of multiple different rhythms in time and space. There are all sorts of patterns and scales that guide the way our natural systems behave, respond and operate. If we can piece together how natural systems change with and without human intervention, we will have a better understanding of how things might change into the future.

Figure 2: A view of the pier from Clove Hitch Quay in a North West direction at Battersea Reach, River Thames in London. Shaun Murray, *Autochthonic Construction Within the First Acupuncture: Exhumation of the Underground*, 2017.

As a practising architect, I design through a range of modalities from sketching in context while repeatedly walking across the same ground, to sketching while sitting on a train, to watching TV or doing watercolours while sunbathing. This involves drawing architecture through occupying the context for the design, and occupying the drawing as the architecture is being constructed through the drawing itself while it is being worked on through to completion. I simultaneously draw and occupy architecture. For me, drawing takes a long time – up to six months – and I occupy the drawing as the design unfolds. The composition of the drawing has three specific ‘time-based’ scenarios: in the foreground, midground and background. The three scenarios are a set-up for the orchestration of the dance of interacting parts, where each scenario has five physical layers with compositions of the same elements from five different times. Drawing is not simply a tool, but a site within itself that is occupied, embodied and sensed by interacting

with the drawing itself, as well as external objects and representations, in a constructive way. By literally allowing time into drawing, it becomes open to chance discoveries: through a process of manipulating new decisions, it is possible to make a new product from the drawing itself by editing the two-dimensional shape and making a different three-dimensional form as a tool to reintroduce to the drawing again through its shadow casting, thus allowing the drawing to take a different route to its conclusion through design. This kind of making through the drawing as it is being drawn could be viewed as a form of ‘possible worlds’ ([Murray 2017](#)).

[Figure 3: A view of the pier from Clove Hitch Quay in a North direction at Battersea Reach, River Thames in London. Shaun Murray, Autochthonic Constructions Within the Second Acupuncture: Ineffaceable illumination with Fruiting Bodies, 2017.](#)

The process of occupying drawings can be understood through John [Berger's](#) [\(1972b\)](#) influential BBC TV art programme, *Ways of Seeing*. This BAFTA award-winning series quickly came to be regarded as one of the most influential art programmes ever produced. In the first programme of the series, Berger examines the impact of photography on our appreciation for art from the past. He unpacks Brueghel's painting *The Road to Calvary* by looking at the range of ways in which it could be occupied and at how different media forms, such as a computer screen or phone, change the art form and the manner of occupation:

[Taking a] painting by Brueghel, *The Road to Calvary*, if you look at the whole painting Brueghel's intention is fairly clear. In the right foreground are Mary and John and the mourners of Christ. Christ carrying the Cross in the middle distance, carried forward by

the crowd, which is making its way to the place of the crucifixes, far away on the right, where a circle of onlookers has already gathered. If you look at the whole picture, you will see that it is about grief, about torture and above all, about the callousness, the eager inquisitiveness, the superstition drive of the crowd. If it sets out to be a religious painting, it is an oddly secular one. But the difficulty is that on a screen, if you keep the whole painting in view, you don't see very much. You have been waiting impatiently for the camera to go in to examine details. Yet as soon as this happens the comprehensive effect of the painting can be changed. For example, it is possible to isolate and show detail in a way that makes the painting look like a straightforward devotional picture. With a different camera movement again, it can be shown as an example of a landscape painting. Or details can present it to you in terms of the history of costume or social customs. In a film sequence, the details have to be selected and re-arranged into a narrative, which depends on unfolding time. Yet in the painting as a whole, all these elements are there simultaneously. In paintings there is no unfolding time.

(Berger, 1972a)

To see the whole rather than just parts of the whole, there is an unfolding of time as your eyes wander across the painting and begin to linger on the ideas and forms that are painted. To illustrate the point of the unfolding of time, Jochem Hendricks' *Eye Drawings* (Hendricks 1992–93) envisions a relationship between the act of drawing and eye movement. These 'eye drawings' reveal to us the complex relationships that exist between participants and environments; this shows that the drawing of architecture challenges the predominant notion of the architectural drawing through reading space with our eye movements.

Figure 4: A view of the pier from Clove Hitch Quay in a North East direction at Battersea Reach, River Thames in London. Shaun Murray, *Autochthonic Constructions Within the Third Acupuncture: Butchering Openness and Vertical Digging*, 2017.

## Drawing entwined from the word ‘disegno’

The term ‘disegno’ comes from the Italian word for drawing or design, involving both the ability to make a drawing and the intellectual ability to invent the design. Its meaning extends beyond the literal idea of drawing as a craft towards disegno as a method and practice of drawing through architecture. From the Renaissance, this ability to invent and create through drawing provided a means of raising the status of drawing from craft to art. A central aspect of disegno was the use of drawings as a foundation of architecture as both complex and contingent. Architectural drawings have often been studied whole in space, but never before have they been studied whole in time. We propose that architectural drawings adapt best when constantly refined and reshaped by the editor of situations (the architect), and suggest that architects can mature from being artists of space to artists of time. The word ‘drawing’ contains the double reality. It means both action of the verb ‘draw’ and ‘that which is drawing’ – both verb and noun, both action and the result. Whereas architecture may strive to be permanent, a ‘drawing’ is always drawing and being drawn. Could the idea be revised to match the fact?

Figure 5: A photogram of a relic revealing a type of niche construction that has the possibility of navigating back and forth with discretely fitted custom-designed handles of sponge-like complexity. Shaun Murray, *Autochthonic Relic*, 2017.

## Sketching as a form of occupying architecture drawing

The need to continually change our surroundings reveals the commonness of architecture as a human activity and its embodiment of the architect's need to sketch. I have a daily personal routine of sketching what I see around me, which extends my range of modalities in order to draw forth ideas. Sketching creates a form of decompressed drawings with a lightness of touch and an unforgiving willingness to just be. There is a 'craft' to sketching that is centrally about enjoyment and fun in the discovery of making new connections with lines, forms and spaces.

Nelson [Goodman \(1976\)](#) suggested that architecture could not enjoy the benefits of a full-blown notational system and clearly stated that architectural notation was inadequate in light of his notational theory. He was especially disappointed with architectural plans as a brand for artistic notation that failed to acknowledge the full descriptions of buildings. His theories are particularly challenging, given that for a full-blown architectural notational system you must preserve the identity or *allographic*ity of the work. This would, in Goodman's view, be attained through *standardization* of the symbolic characters that represent the elements of designs of a given medium. A quarter of a century later, Saul [Fisher \(2000\)](#) wrote an article on architectural notation and Computer Aided Design. He recognized that architecture could have a full-blown notational system that would meet Goodman's criteria.

Figure 6: Bathymetry drawing of two abandoned piers at Battersea Reach in the River Thames in London are used as the context for this investigation revealing bathymetries and the archaeology of the autochthonic relics, 2017.

How do you occupy drawings and why?

To unpack how architects can become editors of situations, we can look at Robert [Rosen's \(1985\)](#): 339). definition of an anticipatory system as 'a system containing a predictive model of itself and/or its environment, which allows it to change state at an instant in accord with the model's predictions pertaining to a latter instant'. Rosen's anticipatory systems act by 'modelling relations'; they require that we find the appropriate *encoding* and *decoding*, or 'notations', to *translate* back and forth between the systems – for example, occupant and drawings – through context, consistently. Without the proper encoding and decoding, there can be no comparing of the systems, and no way to establish congruence between them. 'Anticipation', in Rosen's terminology, is a style of control that is based not as cybernetic systems that deviate from a desired behaviour; rather, anticipation is based on having a predictive model of the system to be controlled, and using the predicted behaviour to generate the control, which will modify the behaviour in a desired way. Rosen suggests that there is more than one time scale, more than one thing that can be called 'real time', in an anticipatory system. In Rosen's first approaches, the anticipatory system was based on predictive models. So, starting from the idea of anticipation – the idea that there must be more than one scale of real time in a system, like two notions of measure in a family of subsets – the idea is reached that these various times are tied to modes of system decomposition. This leads fairly directly into the wider notion of complexity. The modelling relation thus provides us with a methodology for studying one system in terms of another.

In 2006, the four members of the Swedish practice Front Design developed Sketch Furniture, a method to materialize freehand sketches. This uses a unique method combining two advanced techniques. Pen strokes made in the air are recorded with

motion capture and become three-dimensional digital files; these are then materialized into full-scale pieces of furniture through rapid prototyping. With the participant's gestures and hand movements recorded in the environment with motion capture devices, the information is then turned into a three-dimensional digital file through the working drawing of gesture and movement. This three-dimensional file can then be sent to a rapid prototyping device that will fabricate the working drawing as an object with liquid plastics. The practice of gesture and movements to communicate an object allows us to construct the once invisible relationship between our environment and us. The immediate act of gesture as drawing becoming visible through an object somehow describes a space in a more complex and contingent manner. The participant embeds the working drawing through gesture and hand movements within the context of designing a piece of furniture.

Figure 7: Everything that was settled is unmade, Battersea Reach, River Thames, London. Shaun Murray, *The Tectosphere Collapses*, 2017.

To have a dialogue with drawing is to design architecture while being distracted by something else – for example, while travelling through scenery on a train, staring out the window, we could design through this constant dialogue. Similarly, the study of non-physical phenomena through shamanism and mandalas can reveal the collapse of drawing onto building – building as a constructed reality.

Dialogue comes from the Greek word *dialogos*. *Logos* means 'the word', or in our case we would think of the 'meaning of the word'. And *dia* means 'through' – rather than two. A dialogue can be among any number of people, not just two. Even one person can have a sense of dialogue within himself, if the spirit of the dialogue is present. The picture of image that this derivation suggests is of a stream of meaning flowing among and through us and between us. This will make possible a flow of meaning in the whole group, out of which will emerge some new understanding. It's something new, which may not have

been in the starting point at all. It's something creative. And this shared meaning is the 'glue' or 'cement' that holds people and societies together.

(Bohm 1996)

Through dialogue with drawing, it is possible to explore the ways in which 'buildings' (Brand 1995) and 'ways of seeing' (Berger 1972a) can be twinned. Our buildings can best be understood as 'twinned' vessels: vessel-like in that they have constraints and are unpredictable; dialogue in that buildings always exist in an intricate relationship with a larger context. A building does not end at its walls; it is a nexus in a complex field of social relations, ecological systems, cultural norms and local histories. It is only through explorations of the causal and unpredictable dialogue between occupying drawings that we understand they cannot truly exist without the other – they are inseparably linked. Janus, the Roman god of transitions and time, of doorways, passages and dualities, of the material and the abstract, of all beginnings and endings, of the risings and settings of the sun, is shown with two faces – one looking to the past and one to the future. These alternating fluxions are in perpetual dialogue with each other. If we think of a dialogue as a hinge, a dynamic architectural element, having the capacity to throw seemingly static components (the door) across space, we might look to Cardea, the goddess of thresholds, door handles and hinges, beloved by Janus, of whom Ovid said, 'Her power is to open what is shut; to shut what is open'. If we further consider a dialogue as a hinge, we may begin to think of a hinge as 'making [something] dependent on something else' – a reciprocal dialogue.

Now, if we carefully analyse this element, this hinge, this dialogue, what are the spatial implications? What is the material potentiality to use this element – one of several that can be developed and revealed via dialogues – to cultivate the fundamental

constituents of a composite in drawings, an architecture? The interest in form in the drawing is understood from the spatial relationships of its ecology: form becomes inevitable – it is not simply designed directly from nothing. In other words, the composition of the drawing is ‘primarily a dance of interacting parts and only secondarily pegged down by various sorts of physical limits’ (Bateson 2002: 12) and by those limits that environments characteristically impose between the real, the virtual and the actual.

Figure 8: This is the recursive handrail where the participant is slowly adapting and augmenting the architecture through occupation. The handrail is thus composed of participant actions; it is recursive over its various boundaries. Shaun Murray, *Autochthonic Relic: The Built World Vaporises in Soft Apocalypse*, 2017.

## Occupying drawings is not a neutral code

Within architectural practice, the communication from architect to participant or environment is not at all straightforward. This is also true of the dyadic relation between context, design and communication in architectural education. Notational systems within architectural education, which are used as a communication tool, have made the composition of architecture an activity like the composition of fiction: the activity of communication. So deep is the connection between architecture and communication in our culture that for much of the time we ignore it and behave as if notation were really a transparent window – just as in reading a working drawing in architectural practice, we may ignore the intermediacy of notation and imagine that thoughts are reaching us directly from the architect’s mind. The most important criterion of notational systems, whether literal or architectural, is precisely that they should not draw attention to themselves, or disturb the illusion of neutrality and faithfulness.

Through Jochen [Hendricks \(1992–93\)](#) *Eye Drawings* project, our understandings of drawing and reading are connected in an intimate and complex manner as an abductive process:

Eye-drawings are drawings done directly with the eyes, without the slightest interference of the hands – the organ of perception being turned into the organ of expression. By means of technical aids (infrared-, video-, and computer-techniques) human eye movements are traced and digitized during the visual process of looking at something, so as to be able to do an ink-jet print out of these movements eventually. ([Hendricks 1998:](#) 186)

While the newspaper has already been read, this drawing becomes an intimate rereading through the participant of the project. The environment in which the participant is reading the newspaper is not included in the drawing, but what remains behind is a trace of the intake of information. Something of the otherwise invisible process of reading is made visible and a trace of the absorption of information remains. The result is a drawing that has already been read. The drawing becomes embedded through the participant's eye movement in the context of reading the newspaper.

Most architects use notation to represent and communicate their architecture. Notations are essentially used to mediate the experience of the design towards building: they occupy most working drawings in architectural education and practice; they can confuse clients, builders, lecturers and architects alike, and disrupt projects. Yet architects mostly take them as given, as a neutral code leading towards the final design. Here I aim to challenge and reverse this well-worn assumption. We design notation to suit a new vision of how we can communicate our embedded architectures, spatially and experientially, not to suit the arbitrary specifications of the notation. The technologies

that make this possible are advanced holography, telematic communications, ubiquitous computing and advanced control software. They allow us to define a fundamentally new, radically restructured architecture for our notational systems.

Notations are used to construct all architectural drawings and have often been studied as whole in space, but never before have they been studied as whole in time. My interests reside in a synthesis that proposes notations adapt best when constantly refined and reshaped by their occupants, and that architects can mature from being artists of space to becoming artists of time. More than any other artefact, notations improve with time. The word 'notation' contains a double reality. It means both the 'action of the verb notate' and 'that which is notated' – both verb and noun, both the action and the result. Whereas architecture may strive to be permanent, a notation is always notating and being notated. The idea is crystalline, the fact fluid. Could the idea be revised to match the fact?

Saul [Fisher](#) states that:

it is generally held that in the experience of architecture there is no substitute for a walk-through. To know the essential features of a building, one must personally encounter its constituent forms. If one cannot visit the building, the next best option is choosing the best of such options is deciding the means by which we most effectively identify a given building. One answer to this question may be found in Nelson Goodman's *Languages of Art*, in which he proposes a theory of artistic notation that includes foundational requirements for any system of symbols we might use to specify and communicate the features of an artwork, in architecture or any other art form. But not all art forms can enjoy the benefits of a full-blown notational system, in Goodman's view, and he suggests that architecture's symbol systems fall short in this regard. It is a shortcoming of architecture, he believes, that its notation cannot communicate the sum of a given work's

essential features. In the figure of a Navajo making a sand mandala in a healing ritual, the participant sits in the working drawing within the environment.

(Fisher 2000: 273)

The problem with Saul Fisher's argument is that the drawing is only part of a process towards building not the outcome in itself. The creation of a sand mandala requires many hours and days to complete. Each mandala contains many notations that must be perfectly reproduced each time the mandala is created. When finished, a Navajo sand painting ritual may have lasted from five to nine days and may range in size from 3 to 15 feet (approximately 1–5 metres) or more. By means of mandalas – structured sand paintings – the Navajo Indians try to bring a sick person back into harmony with their own self with the context, and thereby to restore their health. The image in [Figure 9](#) shows a Navajo making a sand painting (a mandala) in a healing ritual; the occupant occupies the drawing directly to reveal a more direct understanding the reciprocal relationships. This drawing is experiential, which allows reciprocal relationships between drawing and occupant to become a spatial notational system that can begin to communicate the sum of its given parts.

Figure 9: Figure of a Navajo making a sand mandala in a healing ritual; the participant sits in the working drawing within the environment.

Throughout the ritual, the notational system is continually enacted upon, depending on the occupant's needs. This notational system is embedded within an ecology of relationships that determines the effects of interaction throughout the ritual. The 'totalizing tendency' ([Deleuze 1986](#)) of this ritual offers a system of varying power and a window of opportunity for pioneering different model for notational systems in occupying drawings in architecture.

The Navajo looking at the sky and earth are not just looking at a material collection of bodies moving in accordance with inanimate laws. The sky is a living being, the abode of the spirit. The earth is a living mother – not just a collection of rocks with physical forces at work in them. If we look at any traditional worldview, there isn't a separation between nature and spirit, and environment and architecture. The two go together. It is a much more holistic and integrated view of the world, and as architecture emerges from its current narrow, mechanistic phase and moves to a broader vision, a new kind of connection between the realms of architecture and spirituality becomes possible. They can converge once again. Situated, lived and sketched encounters with the world could be viewed as a formatting of the conceptual ground for whole new approaches to architecture, incorporating lived experience and spirited dimensions as construction parameters.

The drawing becomes a kind of 'through seeing' whereby the relationship of the parts in the drawing is related to those parts in the new kind of contextualism. The drawing thus becomes a reader of another system – rather like in the current relationship of drawing to building, but with one major shift in the direction of the contextual relationship.

Figure 10: Suspended where signs and substances lose ontological distinctiveness, Battersea Reach, River Thames, London. Shaun Murray, *At the Limit of Absolute Consistency, or Structural Collapse*, 2017.

Figure 10: Plan view of a Chthonic Relic, Battersea Reach, River Thames, London. Shaun Murray, *Nothing Has, Any Longer, Ever Been Finished*, 2017.

Drawing dialogues in the 'ineffaceable Beaduric's Island'

This project reverberates around the ‘ineffaceable Beaduric’s Island’ through a series of ‘split’ sites linked to each other within a complex web of feedback loops and retro-sensing devices. It centres on the harnessing of natural phenomena and complex ecological networks within the unique environmental conditions of Beaduric’s Island on the River Thames in Battersea, London. The drawings become like detective work, where you discover information that has been laid down, then use the drawing to investigate all the potential reasons why that information is there to enable the design ecologies of inhabitable mandalas, mirror curtains and ineffaceable illuminati. These architectures are processional through island sites. This project first looks at engagement in multiple ground histories, futures (issues, opportunities) through materiality and the relationship with its natural trigger. I then tickle out an architecture to embrace the occupant. This is unpacked through the inhabitation of abducted ground in multiple times with multiple endings.

Figure 11: Embedding and weaving multiple materials into complex patterns – going beyond shaping geometry, to shaping the internal structure of materials, Battersea Park, River Thames, London. Shaun Murray, *Materials Within Materials*, 2021.

### The mirror, the curtain and the screen

Various places in Battersea record information, and they are called natural archives. The natural archives I examine are the former marshlands, channels, drift-filled hollows and gravel islands from the borehole information sourced from site investigations for the new Northern Line Extension and Battersea Channel Project. Right now, in the air around you, you are breathing in pollen, charcoal, dust, insects – everything. All that stuff is falling on top of lakes, then settling at the bottom and being preserved. So, it is reflective

of what is going on around the lake at that time. I take a core, or sediment sequence, and sequentially sample throughout the whole thing to build up a story through time. I look mainly at pollen, because that is reflective of the vegetation, and charcoal, which is produced by fires. Once you have all this wonderful information, you can understand what's going on before, during and after periods of environmental change. We have come to appreciate that ecosystems don't respond in a linear way; rather, they shift suddenly when a threshold has been crossed. Hypothetically, we can pick up early warning indicators that show when a system has lost resilience and is vulnerable to switching.

Figure 12: The screen and the pendulum, where patterns and scales that our natural systems behave, respond and operate in. Shaun Murray, *Dialectical Balance*, 2021.

### The force of ambiguity: Dialectical balances

The 'screen' and the 'mirror curtain' don't reveal themselves immediately, so you are encouraged to discover new spatial relationships. I am trying to unpack how we measure resilience: how do we predict that an ecosystem is about to switch, and what are the factors involved? We need to design ecologies to create a better predictive ability.

### The spectrum: Ineffaceable illuminati

The spectrum enables a kind of predictive engine that enables the opening up of the hidden complexities of specific spaces. It illuminates the ineffaceable facts through geomorphology, social histories and our current continual occupation of contexts bound through a designed world, with the architect editing the situations to bring forth to the ever present. To look at the wider perspective of the relationships between occupation,

drawing and environment in architecture would allow us to connect the flows or the trace of the relationships over time: these ‘in’, ‘of’ and ‘by’ spaces are ineffaceable.

Figure 13: Shaun Murray, *Ineffaceable Illuminati*, 2021.

### The pendulum: Tactile double bind as inhabitable mandala

More and more people who live in large cities suffer from a terrible emptiness and boredom, as if they were waiting for something that never arrives. The inhabitable mandala involves a way of making contact with the living reality, trying to give a constant amount of attention to what is already there – like trying to live simultaneously on two levels, or in two different worlds. One should allow multiple thoughts to intrude into one’s consciousness and attention, and engage all the senses. The pendulum is used as a contact with the regulating centre. There are two main reasons why we lose the connection or the instinctual drive of where we are. First, we carry an image that is one-sided and makes us lose our balance. our inner balance is threatened by excessive daydreaming, which usually circles around particular complexes in a secret way. The second obstacle is exactly the opposite, and is due to the consolidation of consciousness. The use of the mandala – the magic circle – is to designate the structure of this order, the essence of which we do not know. The mandala is used to restore a loss of balance by means of an inhabitable mandala-structured tactile map – a kind of reorientation tool to bring us back into harmony with ourselves. The inhabitable mandala is a healing ritual: the person sits in the painting and must be circled before entering.

### 26-rule translation

Rules are the way I codify space and conduct interrelations into beginning to understand the consequences of our actions in a new kind of contextualism. To use a set of rules is to consider a range of steps towards designing architecture and how we communicate design as dialogue through drawings to reveal interactions, gestures and existing conditions. It is a dialogue between two worlds becoming inhabited by the 26-rule translation. The differing pressure on the flow of lines to connect with the spatial geometries reveals the dynamic of the form.

The current 26 rules for translation through the drawing are listed below.

1. Sampling ground. Climate proxies, dust, temperature, precipitation, chemistry and gas composition of [the] lower atmosphere.
2. Mental wanderings. Regular routes in walking through the environment.
3. Slingshot histories. Presence of the past to become an influence for future proposals.
4. Meaningless objects in featureless space
5. Accelerated painting
6. Fibrillation edges
7. Symbiotic relationships. Rafael Lorenzo Hemmer defines the term 'relational architecture' as the technological actualization of buildings and public spaces with alien memory. Relational architecture aims to transform the master narratives of a specific building by adding or subtracting audio-visual elements to affect it, effect it and recontextualize it.

8. Vacillating object. This operates as a ‘trigger’ between the participant and the environment. This notion creates a second-order field where the occupant communicates not directly with the environment but through a reader of the environment as a participant.
9. Reflexive incisions
10. Autocatalytic sets
11. Gobleni (tapestry) notations. These are a woven architecture connecting parts of the investigation. They involve cross stitch with 1:4 technique (which means one sign from the pattern scheme = 4 stitches on the canvas). There are 1:1, 1:2, 1:3 techniques with 400 stitches per square. The sequence or combination of the gobleni ecology would enable an infinite sequence of spatial notations that could be edited for particular types of communication – a reflex for future architectures playing as a response to whatever has already occurred or is now occurring. Design is set in motion as a function of what is anticipated or probable – pre-emptive in natural environments.
12. Epigenetic landscapes
13. Dissipative structure
14. Polarizing objects
15. Mirror curtain
16. Within within mandala
17. Autochthonous, formed in its present position
18. Resonating skulls

19. Environmental stoppages. A sample removed from the atmosphere in Central London, containing climate proxies and including dust and bubbles of temperature, precipitation, chemistry and gas composition from the lower atmosphere. Stoppages are physical notations from the environment that become strategic and tactical tools informing the health of our urban environment, including its characteristic internal structures and vibrations; the spatio-temporal pattern of the former superimposes itself on the latter. It is an architecture composed of multidimensional environments.
20. Reader to editor. An editor is about a process of managing uncertainty – the ‘in’, ‘off’ and ‘by’ spaces of design. The blurred edges of a design project are not redefined through a computer screen, but rather through a vast web of relationships. Think of the editor as the progenitor of classification systems in proto-methods of construction – recognizing the importance of designing the connections between manual, digital and biological systems. Architecture can become the editor of environments through the reader – operating as a designer in the manner of a refined intuitionism. The idea is that you will design tools for the determining effects of interaction between occupants and their environment. If the environment is the editor of architecture and not the architect, then the participant is the reader.
21. Partial object space

22. Recursive epistemologies. These concern how events continually enter into, become entangled with, and then re-enter the universe they describe. A central goal of recursive epistemology is the delivery of understanding the need for a ‘rigorous thinking about interconnection and interdependencies in our ecosystems’ (Harries-Jones 1995: 5), so we can begin to resolve our massive ecological dilemma.
23. Affective touch
24. Tactile insertions
25. Volatile signalling
26. Landscape signature.

The 26-rule translation is a dance of interacting parts from Gregory Bateson’s (2002) idea of ‘recursive vision’. Bateson, an anthropologist, developed ideas of ‘recursive vision’ that are about a framework of thinking which is called ‘an ecology of mind’ or ‘mind in ecological settings’ (2002: xxiii). It strives to discover a set of rules from which we can derive principles about the environment, and the relations between human activity and the environment. These principles are a group of interrelated interacting or interdependent parts that make up a complex whole. ‘Recursive vision’ is a term we use frequently in architecture to consider how one thing interacts with another. Modelling relationships within the field generates an architecture that has an active and recursive engagement with its environment. If we understand our environments to be composed of multiple ecologies, then we may be able to operate as designers within them.

Figure 14: Embedding and weaving multiple materials into complex patterns – going beyond shaping geometry, to shaping the internal structure of materials, Battersea Park, River Thames, London. Shaun Murray, ‘Materials within materials’, 2021.

Henri [Bergson \(1907\)](#) proposed that the whole evolutionary process should be seen as the endurance of an *élan vital* (vital impulse) that is continually developing and generating new forms. Evolution, in short, is creative, not mechanistic.

Notation can serve two different functions that are not necessarily exclusive: as a means to enhance cognitive processing and as a memory aid. Notations are not defined by a fence or line, but are dynamic and transformative, forever interacting with the boundaries between the natural and the artificial. If a drawing could fully exchange information with natural phenomena, architecture’s capacity for knowledge and communication would be far deeper and more extensive than presently understood. It would also disturb the boundary lines of our individuality – our very sense of separateness from the built environment – and tease out a different path.

## Conclusion

Is there a way to make the relationship of the occupation of drawings within the environment more authentic or original? Why are we not as comfortable about identifying an architectural work with a design rather than a building as we are about identifying a musical work with a composition rather than a performance?

By providing an ecological window into what the space could become, occupying drawing can act as a kind of predictive engine, opening up the hidden complexities of specific spaces. Through awareness that time is with you when occupying drawings, the

things around you change as you change. Architecture slips between one space and another at different times. Like an archaeologist discovering a fragment, the physical act of discovery is time stamped from whence it came in space and time, privileged over when it was discovered.

In the bootstrap paradox, an object or information from the future is sent back to the past, creating a never-ending cycle in which the object no longer has any real origin. It exists without ever having been created. Things travelling back in time find us before they have been created – it is a question of origin.

We cannot argue that drawings are not neutral in the architecture of occupation: like buildings, drawings can be occupied and have the agility for change and adaptation over time. All my projects focus on grand themes and small human frailties. The aim is to tease a different path through the clash with a new situation that is incidental to the drawings; this is related to these sweet little moments that emerge from direct observations. Draw the environment as you experience it; experience the environment as you draw it. It is through this unravelling of the complexity of this relationship to occupy drawing that we can reveal an architecture that happens prior to building.

If architecture alters the environment, will it be able to be maintained by artificial sub-systems to replace the natural ones, in a way that allows technology to ‘stay ahead’ of nature until eventually architecture becomes completely independent of the natural order through technological means? This could be seen as an argument for future prescription rather than analysis. The emergence of burgeoning practices within the field of a non-reductionist, non-localized and non-anthropocentric world-view opens up the potential for a challenging architecture that is ultimately communicative.

## References

- Adamson, Glenn (2009), *The Craft Reader*, Oxford: Berg.
- Alberti, Leon Battista (1988), *On the Art of Building in Ten Books* (trans. J. Rykwert, N. Leach and R. Tavernor), London: MIT Press.
- Batchelor, C. R., Green, C. P., Hood, S. Meager, G. Spurr, D. and Young, D. (2014), 'The Battersea Channel Project, Nine Elms: Exploration of the buried prehistoric landscape', *English Heritage*.
- Bateson, Gregory (2002), *Mind and Nature: A Necessary Unity*, Cresskill, NJ: Hampton Press.
- Berger, John (1972a), *Ways of Seeing*, London: Penguin Books.
- Berger, John (1972b), *Ways of Seeing*, 'Episode 1', YouTube, Accessed 8 October 2021. [https://www.youtube.com/watch?v=0pDE4VX\\_9Kk](https://www.youtube.com/watch?v=0pDE4VX_9Kk). Accessed 26 March 2021.
- Bergson, Henri (1907), *Creative Evolution*, New York: Henry Holt.
- Bohm, David (2020), 'Dialogue', in *The Life and Thought of David Bohm: Development of the Notion of Dialogue*, <http://isis.hampshire.edu/dialogue/bohm.html>. Accessed 26 March 2021.
- Brand, Stewart (1995), *How Buildings Learn: What Happens After They're Built*, Harmondsworth: Penguin.
- Deleuze, Gilles (1986), *Cinema 1: The Movement-Image* (trans. H. Tomlinson and B. Habberjam) London: Athlone Press.
- Fann, K. T. (1970), *Pierces Theory of Abduction*, Dordrecht: Springer.
- Fisher, Saul (2000), 'Architectural notation and computer-aided design', *Journal of Aesthetics and Art Criticism*, 58:3, pp. 273–89.

- Goodman, Nelson (1976), *Language of Art: An Approach to a Theory of Symbols*, Indianapolis, IN: Hackett.
- Harries-Jones, Peter (1995), *A Recursive Vision: Ecological Understanding and Gregory Bateson*, Toronto: University of Toronto Press.
- Hendricks, Jochem (1992–93), *Eye Drawings*, <https://jochem-hendricks.de/eye-drawings>. Accessed 26 March 2021.
- Hendricks, Jochem (1998), ‘Eye drawings’, <http://www.medienkunstnetz.de/works/augenzeichnungen>. Accessed 26 March 2021.
- Inwood, Stephen (2008), *Historic London: An Explorer’s Companion*, Oxford: Pan Macmillan.
- Kiesler, Frederick (1939), ‘On correalism and biotechnique: A definition and test of new approach to building design’, *The Architectural Record*, 86:1, pp. 60–75.
- Koolhaas, Rem (2014), *Elements of Architecture*, Venice: Marsilio.
- Magnani, Lorenzo (2012), *Abduction, Reason and Science: Processes of Discovery and Explanation*, New York: Springer.
- Magnani, Lorenzo (2017), *The Abductive Structure of Scientific Creativity*, New York: Springer.
- Murray, Shaun (ed.) (2019), *Design Ecologies 8: Possible Worlds*, Bristol: Intellect.
- Robinson, Eric (1993), ‘The mystery of Pulhamite and an “outcrop” in Battersea Park’, *Proceedings of the Geologists Association*, 104:1, pp. 141–43.
- Rosen, Robert (1985), *Anticipatory Systems*, Oxford: Pergamon Press.
- Spiller, Neil (2002), ‘Reflexive architecture’, *Architectural Design*, 72:3, pp. 5-8

Toms, Emma, Mason, Philippa J. and Ghail, Richard C. (2016), 'Drift-filled hollows in Battersea: Investigation of the structure and geology along the route of the Northern Line Extension London', *Quarterly Journal of Engineering Geology and Hydrogeology*, 49:1, pp. 147–53.

Figures.

(Figure1\_170324\_3\_Chthonic Deluge 02)

Figure 1: To have the possibility of navigating back and forth with discretely fitted custom-designed handles of sponge-like complexity, Battersea Reach, River Thames, London. Shaun Murray, Niche Constructions, 2017.

(Figure2\_170703\_1\_jetty01)

Figure 2: A view of the pier from Clove Hitch Quay in a North West direction at Battersea Reach, River Thames in London. Shaun Murray, Autochthonic Construction Within the First Acupuncture: Exhumation of the Underground, 2017.

(Figure3\_170703\_2\_jetty01)

Figure 3: A view of the pier from Clove Hitch Quay in a North direction at Battersea Reach, River Thames in London. Shaun Murray, Autochthonic Constructions Within the Second Acupuncture: Ineffaceable illumination with Fruiting Bodies, 2017.

(Figure4\_170703\_3\_jetty01)

Figure 4: A view of the pier from Clove Hitch Quay in a North East direction at Battersea Reach, River Thames in London. Shaun Murray, *Autochthonic Constructions Within the Third Acupuncture: Butchering Openness and Vertical Digging*, 2017.

(Figure5\_170703\_Photogram\_1)

Figure 5: A photogram of a relic revealing a type of niche construction that has the possibility of navigating back and forth with discretely fitted custom-designed handles of sponge-like complexity. Shaun Murray, *Autochthonic Relic*, 2017.

(Figure6\_170707\_1\_bathymetry01)

Figure 6: Bathymetry drawing of two abandoned piers at Battersea Reach in the River Thames in London are used as the context for this investigation revealing bathymetries and the archaeology of the autochthonic relics, 2017.

(Figure7\_170707\_1\_bathymetry02)

Figure 7: Everything that was settled is unmade, Battersea Reach, River Thames, London. Shaun Murray, *The Tectosphere Collapses*, 2017.

(Figure8\_170707\_1\_bathymetry03)

Figure 8: This is the recursive handrail where the participant is slowly adapting and augmenting the architecture through occupation. The handrail is thus composed of participant actions; it is recursive over its various boundaries. Shaun Murray, *Autochthonic Relic: The Built World Vaporises in Soft Apocalypse*, 2017.

(Figure9\_210104\_NavajoSand Mandala)

Figure 9: Figure of a Navajo making a sand mandala in a healing ritual; the participant sits in the working drawing within the environment. Mirror Curtain, 2021.

(Figure10\_170707\_1\_chthonicrelic01)

Figure 10: Suspended where signs and substances lose ontological distinctiveness, Battersea Reach, River Thames, London. Shaun Murray, At the Limit of Absolute Consistency, or Structural Collapse, 2017.

(Figure10\_170707\_1\_chthonicrelic02)

Figure 10: Plan view of a Chthonic Relic, Battersea Reach, River Thames, London. Shaun Murray, Nothing Has, Any Longer, Ever Been Finished, 2017.

(Figure11\_210104\_MirrorCurtain01)

Figure 11: Embedding and weaving multiple materials into complex patterns – going beyond shaping geometry, to shaping the internal structure of materials, Battersea Park, River Thames, London. Shaun Murray, Materials Within Materials, 2021.

(Figure12\_210104\_DialecticalBalances01)

Figure 12: The screen and the pendulum, where patterns and scales that our natural systems behave, respond and operate in. Shaun Murray, Dialectical Balance, 2021.

(Figure13\_210104\_Ineffaceable Illuminati01)

Figure 13: Shaun Murray, Ineffaceable Illuminati, 2021.

(Figure14\_210104\_InhabitableMandala01)

Figure 14: Embedding and weaving multiple materials into complex patterns – going beyond shaping geometry, to shaping the internal structure of materials, Battersea Park, River Thames, London. Shaun Murray, ‘Materials within materials’, 2021.

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