

Introduction

A Pattern Constellation

Ana Araujo

Hanging carpets remained the true walls; they were the visible boundaries of space. The often solid walls behind them were necessary for reasons that had nothing to do with the creation of space; they were needed for security, for supporting a load, for permanence and so on. [...] Wherever the need for these secondary functions did not arise, carpets remained the original means of separating space. Even where building solid walls became necessary, the later were only the inner, invisible structure hidden behind the true and legitimate representatives of the wall, the colorful woven carpets.¹

When in 1851 Gottfried Semper declared carpets to be the original architectural walls, he configured a new constellation in the firmament of spatial design. A constellation is a collection, a spatial arrangement, which may comprise a multitude of bodies, objects and systems of varied brilliance and intensity. Semper's constellation, for example, includes components as diverse as fabric, ornament, pattern, softness, symbol, craft, industry, surface, fashion, weaving, dress, amongst many others.

More illuminating than each individual element of a constellation are the different networks composed by those elements. This special issue of *Haeceity Papers* proposes to build one of such network. Taking pattern as a point of departure, it ventures towards the fabrication of a (patterned) web, as a means to activate connections between different components of Semper's constellation.

A Pattern Method

Other elements could have been chosen as starting points. However, the choice of pattern delineates a specific set of parameters upon which the discussions here presented are based. Pattern is a far ranging concept. It may refer to a material object (like the hanging carpets mentioned by Semper) but it may also denote a system of thought, or a mode of operation. Alluding to the latter understanding of the term, the American mathematician Ian Stewart maintains that:

We live in a universe of patterns. [...] Every day the stars move in circles across the sky. The seasons cycle at yearly intervals. No two snowflakes are ever exactly the same, but they all have six-fold symmetry. Tigers and zebras are covered in patterns of stripes, leopards and hyenas are covered in patterns of spots. Intricate trains of weaves march across the oceans; very similar trains of sand dunes march across the desert [...]. Every day the stars move in circles across the sky. The seasons cycle at yearly

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Because the universe is governed by pattern, Stewart argues, that this concept also works as a particularly privileged means for understanding its rules. Mathematics constitutes, for Stewart, the culturally established 'system of thought for recognizing, classifying, and exploiting patterns'.³ Its principal aim is to decipher, through what I call a pattern method, the otherwise impenetrable mysteries of nature.

Mathematics deals with pattern in a twofold manner. On the one hand, it looks at pattern as a visible indication of a hidden logic. In this case, emphasis is given to the way pattern works, and to how its perceptible processes might prove useful to elucidate natural enigmas. On the other hand, mathematics employs pattern as a neutralizing backdrop that allows for the exceptional to stand out, so that by establishing it as the ordinary, one is also capable of discerning the extraordinary – that which works against it. It is interesting to notice that the visual structure of pattern, invariably constituted of a play between figure and ground, reflects the two models upon which its

employment in mathematics is based. In the first instance (as a visible indication of a hidden logic), pattern operates as figure, located as the foreground. In the second instance (when it is employed as a milieu for mapping the exceptional), pattern recedes to the background.

In its first mathematical application (as figure), pattern works as a piece of evidence that hints at what is in principle invisible and imperceptible. Stewart mentions, for example, the discovery of the German astronomer Johannes Kepler, who was able to intuit the atomic constitution of matter through his observation of the patterned arrangement of snowflakes. In a similar guise, the movement of the stars, Stewart explains, provides clues to understanding the rotation of the Earth; waves and dunes attest to otherwise undetectable patterns of water, sand and air flow; and skin patterns reveal the logic of biological growth. As Stewart summarizes:

Mathematics is to nature as Sherlock Holmes is to evidence. When presented with a cigar butt, the great fictional detective could deduce the age, profession, and financial state of its owner. [...] When presented with the evidence of hexagonal snowflakes, mathematicians can deduce the atomic geometry of ice crystals.⁴

In its second employment, as background, the mathematician notices, pattern is no less

revealing. The astronomical recognition of planets, for instance, could only be accomplished because their movement was distinct from the regular (patterned) motion of the stars. 'Against the circling background of stars, a small number of stars that move quite differently beg to be singled out for special attention. The Greeks called them *planetes*, meaning "wanderer"'.⁵ Yet, as this example already indicates, what often follows the discovery of difference within a patterned system is the identification of another pattern in what was first perceived as exceptional. 'We are still learning to recognize new kinds of pattern', Stewart reveals.⁶ In his theory, pattern recurs continuously, reappearing repeatedly 'on ever-finer scales'.⁷ I argue that the mathematical trajectory through its processes constitutes a restless *mise en abyme*. In '3 John Street, 1:50: *Mise en abyme*', Penelope Haralambidou explains that the French expression *mise en abyme* is used in art and literature to describe a work within a work 'placed into the abyss' or 'placed in infinity'. Deriving from heraldry – when a shield features in its centre an image of the same shield – the term is used to describe an image or a text containing a smaller copy of itself, the sequence appearing to recur infinitely.⁸

Even though Stewart does not explicitly employ the term *mise en abyme*, it seems as if his understanding of the mathematical processes

points to the same dynamics as the one described by Haralambidou, where the search for patterns configures an unrelenting, self-perpetuating process tending towards infinite repetition.

The architectural discussions presented in this issue in many ways reverberate with the multilayered understanding of pattern indicated in Stewart's mathematical theory. Firstly, situating pattern in the forefront, a number of authors use pattern to decipher architectural processes that would be otherwise hard to discern. Such a standpoint is illustrated in the papers by Ana Araujo, Jane Graves and Lucy Leonard. Secondly, locating pattern in the backdrop, several authors position the architectural as that which stands against pattern, also pointing, in the guise of Stewart's description of the discovery of planets, to a potential rediscovery of pattern in what at first may come across as patternless. This second strategy is at work in the papers by Lilian Chee, Sophie Handler and Jonathan Hill.

Thirdly, there is an approach that refuses to locate pattern *either* in the fore *or* in the background, engaging precisely with its oscillating dynamics. This position is here exemplified by Judith Clark's curatorial work and by Jane Rendell's 'site-writing' practice.

Clark's spatial display of dress, as she herself acknowledges, is based on a complex pattern

grammar which links objects only provisionally, generating networks which resist a one-to-one association to a given narrative. Rather than clarifying links (or contrasts) of a historical, social, cultural, political or personal order, Clark's work configures an abyssal set of connections where patterns of meaning can never be definitively fixed. Instead, they unfold continuously, triggering an unending progression that echoes the ones described in Stewart's reading of the inexhaustibility of the Pattern methodology and in Haralambidou's explanation of the *mise en abyme* dynamics.

In a comparable guise, Rendell's exercise of spatial writing, as explained and practiced in her 'Chinese Whispers', generates a profusion of texts within texts where the repetition of the same words in response to different sites configures a peripatetic network of meanings. The spatio-temporal construction of such a network evokes the typical (pattern) techniques of textile fabrication, insofar as it replicates their circular processes of doing, (un)doing and (over)doing, in a set of procedures aimed at the production of excessive and redundant embellishment.

Patterns of Criticism

In 'Criticism by Design: drawing, wearing, weathering', Hill claims that to be critical in architecture implies to be critical of architecture.⁹ In a similar vein, in *Art and Architecture: A Place*

Between, Rendell considers the interstitial space configured by practices of inter-disciplinarity as a privileged position from which critical discourses might be forged.¹⁰

Pattern stands in such a position. Belonging, in its origins, to the domain of textile manufacture, it meanders through the interstices of various disciplines, refusing to be stabilised into a fixed practice or fully grasped by an established field of knowledge.¹¹ Even though Semper argued enthusiastically for an understanding of pattern as inherent to architecture, it is clear that such a concept cannot be easily confined into a single discipline.¹² Pattern always exceeds the architectural in some capacity.¹³ It is intrinsically connective, rather than contained, bridging between architecture and fashion, fashion and mathematics, mathematics and textile design, textile design and biology, biology and architecture and so on. Owing to its connective and interstitial nature, pattern is particularly well-placed to launch interdisciplinary procedures and promote criticism. Though it does not always do so.

While the associative and hybrid qualities of pattern are essential ingredients for the promotion of interdisciplinarity, they are nonetheless not sufficient to establish such a critical condition. For, as Rendell explains, the particular conjuncture that endorses and upholds interdisciplinary processes

may also produce links of a totally different order.

For her:

the term *inter-disciplinarity* is often used interchangeably with *multi-disciplinarity* and *collaboration*, but I understand the terms to mean quite different things. [...] *multi-disciplinary* implies that a number of disciplines are present but that each maintains its own distinct identity and way of doing things, whereas in *inter-disciplinarity* individuals move between and across disciplines and in so doing question the ways in which they work. In *collaboration*, the emphasis is less on disciplinary distinctions and more on how individuals work together towards endpoints decided through mutual consent.¹⁴

So here collaboration and multi-disciplinarity are understood as conciliatory and ultimately uncritical, whereas inter-disciplinarity promotes friction, aiming to challenge and transform the practices that become engaged in its processes. Peculiar to inter-disciplinarity, Rendell clarifies, is the willingness to 'call into question [...] the way we do things' as well as 'what we call what we do', in an attempt to overturn what is established and conventionalized.¹⁵

Although today textiles and other pattern-related themes have been receiving increased consideration from architects and others researching in this field, yet their approaches often

follow either the multi-disciplinary or the collaborative model, and so fail to develop the insights that other disciplines offer architecture, which could potentially incite transformations in the architectural discipline itself.¹⁶ This posture frequently results from a restricted consideration of pattern as a purely material entity (as *mere* ornament, fabric or surface) located within an interpretative framework that overlooks its processual and operative dimensions, and too quickly integrates it into the conventional processes of architecture. This is not the case in the papers presented in this issue. Engaging pattern as a system of thought (as above exemplified in Rendell and Clark's practices), the authors here address precisely the points of tension generated in the conflation between the architectural and the patternly. In so doing, they operate in the register of what Rendell calls 'critical theories':

Critical theories are forms of knowledge, but [...] they differ from theories in the natural sciences because they are 'reflective' rather than 'objectifying' [...]. Critical theories also have a particular set of aims in that they seek to enlighten and emancipate their readers by providing a critique of normative attitudes. Critical theories aim neither to prove a hypothesis nor to prescribe a particular methodology or solution to a problem; instead, in a myriad of ways critical theorists offer self-reflective modes of thought that seek to

change the world, or at least the world in which the inequalities of market capitalism, as well as patriarchal and colonial (or post-colonial) interests, continue to dominate.¹⁷

Correspondingly, the essays published here perform critically in that they, in different manners, denounce architecture's inconspicuous connivance with systems of domination, hinting at possible ways of challenging this condition of disguised complicity. Albeit critical, these articles are propositional as well, and, in a way, optimistic, for they tentatively envision alternatives for the problems that they unearth.

Lilian Chee's 'A Web in the Garden', for instance, employs a pattern procedure to build a web of connections that allow her to expose, concurrently, the heroism and flaws of a colonialist enterprise. While her approach is essentially historical, it intimates not only a shifted reconstruction of the past that negotiates – rather than neglects – its own internal contradictions, but also a revision of current architectural attitudes that discretely perpetuate a dynamics not dissimilar to the one in operation in colonialist acts.

With a similar scope, Ana Araujo's 'Orna(mental): Thoughts on the Relationship between Pattern and Hysteria', discloses, through her reading of a literary account of pattern, the fundamentally authoritarian agenda that underpinned the late

nineteenth-century development of psychiatry and psychoanalysis. Architecturally, Araujo's critique alludes both to the oppressive structure of health establishments (the genuine spatial materialization of the dissimulated authority of the medical system) and to the perhaps not less tyrannical institutional aesthetics that they propagate.

From the authoritarian domain of the institutional towards the presumably more tender terrain of the domestic, Sophie Handler's 'Working Patterns (for Autonomous Construction)' denounces the modernist overpowering repression of feminine practices of domesticity while suggestively building up a claim for an architectural revision of this attitude. Working within the same territory, Lucy Leonard's '*Archive Fever* in Patterns of Domestic Order' implicitly argues for an architectural legitimating of actions of pattern-making from the demonstration of their common origins to the more highly praised procedures of public archiving. Although apparently unassuming and inconsequential, Leonard's and Handler's papers suggest that the patterns of domestic practices are in fact deeply charged with psychological and political undertones, impacting the social arena and therefore deserving a much more serious consideration than the one normally devoted to them by mainstream architectural discourses.

Jane Graves's 'Seeing through Pattern: Glass and the Lacanian Gaze' puts forward a comparable

argument. Speculating on the psychological and political implications of the visual regime installed by patterned surfaces, it deepens the reader's perception of how architectural settings might imperceptibly affect the beholder, provoking, in some extreme cases, an unfathomable state of fright, anxiety and distress. Jonathan Hill's 'Weather Patterns: Turner and the Big Smoke' operates precisely in this unfathomable dimension. Challenging the convention that forces the monstrous and unpredictable (here manifested as weather, in Graves's piece manifested as pattern) into the backdrop, Hill's paper integrates it back into the foreground of the architectural scene. Embedded in his as well as in Graves's attitude is a contentious engagement with menacing and obscure conditions that architects usually attempt to avoid, haunted by the fear that their discipline might have its (oppressive) authority endangered by forces that ultimately threaten to annihilate it.

Notes:

¹ Gottfried Semper, 'The Four Elements of Architecture, in *The Four Elements of Architecture and Other Writings*, ed. Francesco Pellizzi, trans. Harry Francis Mallgrave and Wolfgang Herrmann, Cambridge, Cambridge University Press, pp. 74–130. Here p. 104.

² Ian Stewart, *Nature's Numbers: Discovering Order and Pattern in the Universe*, London, Phoenix, 1998, p. 1.

³ Stewart, *Nature's Numbers*, p. 1.

⁴ Stewart, *Nature's Numbers*, pp. 1–2.

⁵ Stewart, *Nature's Numbers*, p. 3.

⁶ Stewart, *Nature's Numbers*, p. 3.

⁷ See Stewart, *Nature's Numbers*, p. 3.

⁸ Penelope Haralambidou, '3 John Street, 1:50: *Mise en abyme*', in Peg Rawes and Jane Rendell (eds), *Spatial Imagination*, London, The Bartlett School of Architecture, UCL, 2005, pp. 14–15. Here p. 14. See also Lucien Dällenbach, *The Mirror in the Text*, trans. Jeremy Whiteley and Emma Hughes, Cambridge & Oxford, Polity Press and Basil Blackwell, 1989, p. 8.

⁹ See Jonathan Hill, 'Criticism by Design: Drawing, Wearing, Weathering', in Jane Rendell (ed.) 'Critical Architecture', special issue of *The Journal of Architecture*, vol. 10, no. 3, June 2005, pp. 285–93.

¹⁰ See Jane Rendell, *Art and Architecture: A Place Between*, London and New York, I. B. Tauris, 2006, pp. 1–12.

¹¹ For an account of the textilic origins of pattern and on its prolific qualities, see Kerstin Kraft, 'Textile Patterns and Their Epistemological Functions', in *Textile: The Journal of Cloth and Culture*, v. 2, n. 3, Autumn 2004, pp. 275–89.

¹² As demonstrated, for instance, in Ian Stewart's discourse, presented in the previous section of this Introduction.

¹³ See, for instance, James Trilling, *The Language of Ornament*, London, Thames & Hudson, 2001, pp. 6–10; James Trilling, *Ornament: A Modern Perspective*, Seattle and London, University of Washington Press, 2003, pp. 21–8; and Mark Wigley, *White Walls, Designer Dresses: The Fashioning of Modern Architecture*, London & Cambridge, MIT Press, 2001.

¹⁴ Rendell, *Art and Architecture*, p. 11. Emphasis mine.

¹⁵ Rendell, *Art and Architecture*, p. 8.

¹⁶ For an account of recent cooperations in the fields of architecture, fashion, textile design and textile manufacture, see, for instance, Mark Garcia (ed.) 'Architextiles', special issue of *Architectural Design*, v. 76, n. 6, November/December, 2006; and Bradley Quinn, *The Fashion of Architecture*, Oxford, Berg, 2003.

¹⁷ Rendell, *Art and Architecture*, p. 8. See also, referenced by Rendell, Raymond Geuss, *The Idea of Critical Theory: Habermas and the Frankfurt School*, Cambridge, Cambridge University Press, 1981.