

Section I

Explorations of the History Of  
Interior Design

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# An Overview of Phenomenology for the Design Disciplines

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## Introduction

The word phenomenology is used often in design circles, but accessible definitions of the term are harder to come by. This is unfortunate because disciplines such as interior design, architecture, landscape architecture, and product design regularly deal with phenomenological factors. These include how users respond to light and color, to tactility, to climate, or to user preferences. Other related factors include way-finding, sense of belonging, and cultural differences in how space and place are experienced. Such a wide variety of factors is one challenge to a concise definition of the word. Another reason is that “phenomenology” is a technical term with a rich history in Western philosophy, one which those of us trained in the design disciplines may not have had systematic access to.

This essay situates phenomenology in its historical-philosophical lineage and, in light of this, identifies ways it applies to design. The history makes clear how, by the mid-19th century, phenomenology had split into two conceptual threads – what is called here individual phenomenology and corporate phenomenology – both remaining relevant for design theory and practice. Interspersed throughout this section of the essay are sections headed “applications to design.” These are numbered progressively, each relating to the aspect of phenomenology being explained. After the historical introduction, a “map of phenomenology” is provided (Figure 1.1), identifying four regions in the phenomenological literature related to the design disciplines. The conclusion summarizes current trends in design theory and practice, underlining their connections to phenomenological principles.

## Phenomenology: A Brief History

The Greek word *phanesthai*, which means “(to be) about to reveal itself,” is the root for our word phenomenology. *Phanesthai* is in the Greek middle voice, denoting the subject acting upon itself. This middle voice is different from the active voice, in which the subject acts upon another entity, or the passive voice, in which the subject is acted upon by another entity (Heidegger 1962: 51). Putting these two elements together, we have *phanesthai* as the self-revealing, or the self-coming-into-light, of an object, independent of external causes. It is from this root that phenomenological inquiry emphasizes immediate experience. Immediate experience refers to experience that cannot be captured by sentences, equations, photographs, even social conventions; all of these are second-hand derivatives of the initial self-revealing reality.

This self-revealing aspect is historically important because phenomenological inquiry arose as a reaction against Enlightenment biases in general, and scientific method in particular. The Enlightenment outlook celebrated measurability, that is, a thing is not knowable unless and until it can be empirically defined, its height and width and depth all captured by fixed propositions. Measurability was the spirit behind René Descartes’ prescriptions for scientific knowledge, patterned after the unchanging nature of geometry, accessible only by the reasoning mind (Descartes [1637] 1980).<sup>1</sup> In such an ideological climate, not only physical phenomena but even inquiries into beauty were driven by a scientific agenda. For example, on the Continent, Alexander Baumgarten (1714–1762) held that feelings for the beautiful were “confused” until they can be scientifically ascertained (Baumgarten [1739] 1970).<sup>2</sup> As well, in England, John Locke (1632–1704) divided between an object’s primary qualities (those that can be measured: “solidity, extension...number”) versus its secondary qualities (those that “in truth are nothing in the objects themselves”: colors, sounds, tastes) (Locke [1690] 1994: 71). So in Locke’s very influential view, factors usually associated with immediate experience – colors, sounds, tastes – were not essential to the objects they just happen to be attached to.

It was against this scientific mindset that Edmund Husserl (1859–1938) first embarked on a journey that led to phenomenological inquiry. Husserl was initially a psychologist, but he soon felt the limits of the field, noticing that its empirical methods were unable to delve deep enough in accessing original (read: immediate) experience – the “things themselves” (Lauer 1965: 10). Thus began another hallmark focus of phenomenological inquiry: getting to being itself as the starting point of inquiry.

This emphasis on being is strongest in the thought of Martin Heidegger (1889–1976) who was a student of Husserl’s early in his career; they parted ways later. Heidegger contributed some of the most well-known technical terms to phenomenology studies, one of which is “being-in-the-world.” Being-in-the-world does not designate two things, that is, a being (1) that is in the world (2). Instead, the entire

term denotes a single reality: being-in-the-world (1). And so Heidegger sometimes calls this single and immediate reality “thrown-ness”: at every instant, one is simply thrown into his or her context; one has no control over the immediate reality of that immediate reality (Heidegger 1962: 174). To further take away from contingent human factors in this or that immediate reality, Heidegger uses the word *Dasein*, which simply means there-being, or being-there, to describe this immediate oneness of being-in-the-world. Here is the first opportunity to consider how this applies to design.

### *Application to design #1. Graphically capturing subjective feelings*

Early in her career, Clare Cooper Marcus investigated residents’ subjective attitudes about their home environments. She found that the conventional tools of qualitative research – interviews, for instance – were not sufficient in accessing her subjects’ inmost feelings. They merely produced reports of, that is, only secondary access to, those feelings. She then came upon Heidegger’s phenomenology; here is her reaction in her own words:

I attempted to approach this material via what philosopher Martin Heidegger called “pre-logical thought.” This is not “illogical” or “irrational,” but rather a mode of approaching being-in-the-world that permeated early Greek thinkers at a time before the categorization of our world into mind and matter, cause and effect, in-here and out-there had gripped...the Western mind. I firmly believe that a deeper level of person/environment interaction can be approached only by means of a...process that...eliminates observer and object. (Cooper Marcus 1995: 10–11)

Cooper Marcus operationalized this insight by asking her subjects to sketch their feelings about their homes, thereby circumventing the need for propositional descriptions. How successful she was can be debated, but it is clear that she had developed a tactic for design inquiry rooted in phenomenology theory.

The takeaway in Cooper Marcus’ innovation is the idea that clients – or perhaps all persons without formal design education – can better report their own attitudes about environments when not asked to express those attitudes propositionally. In this regard, Charles Moore’s approach in designing St. Matthew’s Church in Los Angeles deserves mention (Pressman 1995: 59–65). The congregation was noted for being a contentious group. Over four months, Moore held design charrettes with the parishioners to arrive upon a consensus.

Exercises included participants arranging found objects (Fruit Loops, cellophane, scissors and paper, even parsley) into different configurations which later informed the design. Another exercise had participants projecting their wishes onto various graphic configurations, and so on. In the end, 87% of the congregation approved of the design (Groat and Wang 2002).<sup>3</sup> The phenomenological component in this approach is high because, like the Cooper Marcus example, the designers were able

to harvest intuitive (read: immediate) data previous to that data being framed into a propositional design program. This is an example of a design process capturing the “thrown-ness” of the realities experienced by clients.

To return to our history of phenomenology: so far, note that the emphasis is upon immediate individual subjective experience. Let us call this individual phenomenology. There are many examples in the literature focusing on individual phenomenology. For a single (and short) primary source describing phenomenology in this sense, the Introduction to Maurice Merleau-Ponty’s *Phenomenology of Perception* is recommended (Merleau-Ponty [1945] 1995). For a sustained applied study, Gaston Bachelard’s *The Poetics of Space* is a good source (Bachelard [1958] 1994). Yi-fu Tuan’s *Sense and Place: The Perspective of Experience* is another work; this is one of the many that concern “sense of place” from the standpoint of individual phenomenology. There is also Steen Eiler Rasmussen’s *Experiencing Architecture*, which addresses immediate engagement of the individual senses with the materiality of built environments. More recently, this is also the focus of Juhani Pallasmaa’s *Eyes of the Skin: Architecture and the Senses*. From Husserl to Pallasmaa, the main focus here is upon *Dasein*’s individual immediate experiences.

### *Application to design #2. Rich, thick, tactility and sensuality in design*

Almost always, when designers invoke “phenomenology,” what they have in mind is the power of design to enhance immediate individual phenomenological experiences. Examples are projects like Fay Jones’ Thorncrown Chapel, the mysteriously magical church built of wood lattices, sitting in the woods of Arkansas, or Steven Holl’s St. Ignatius Chapel in Seattle, with its glowing but shadowy interiors colored by different shades of glass. These projects possess significant phenomenological value because of their ability to stimulate heightened sensual engagement. These two projects are particularly relevant for interior design studies in that they illustrate different approaches to the idea of “interior.” In Thorncrown Chapel, the lattice-like treatment of the building skin results in inclusion of the surrounding woods as part of the interior experience. Put another way, the building almost seems to disappear into the interiority of the nature that surrounds it, a particularly fitting strategy for a chapel design.

Holl’s project takes the opposite approach, segregating the interior from the outside by opaque walls, only to allow light to filter inside in controlled ways, heightening the richness and sensuality of the interior experience. This treatment of light for sacred space has a long tradition behind it – from Reims to Ronchamp. At any rate, heightening individual subjective experience – termed here rich, thick, tactility and sensuality in design – is a well-established translation of philosophical phenomenology into design practice. Further, it can be applied to defining regional characteristics in design, as outlined below.

*Application to design #3. Critical regionalism*

In a recent student exercise in theory-building, one team produced a poster entitled “Northwest Style is not Northwest Style Without Cedar.”<sup>4</sup> The theory posited the categories of color, acoustics, aroma, feel, and the native American tradition, as captured in the use of cedar in design that is characteristic of the United States Pacific Northwest region. This approach follows suit with Kenneth Frampton’s theory of critical regionalism, one that promotes faithfulness in design to a region’s geographical and cultural history, sensitivity to that region’s climate and light, and retention of its tactile attributes (Frampton 1983). Heightening a region’s tactile offerings in design, Frampton argues, increases the “boundedness” of a locale; what Heidegger calls dwelling (Heidegger 1951a). This principle is exemplified in the student poster, which cites how the use of cedar in a modernist interior from the 1930s (in a design by the firm of Belluschi & Yeon) gave the project a distinct regional flavor even when the overall project was done in the more abstract (and location-less) lines and planes of the International Style.

Where did this emphasis on the pleasurable aesthetic aspects of individual phenomenology come from? It came largely from Christian Norberg-Schulz, whose work is probably the most influential in applying Heidegger’s phenomenology to design theory overall (e.g., Norberg-Schulz 1980). But Norberg-Schulz’s handling of Heidegger is not without Norberg-Schulz’s added overlays. In brief: Heidegger’s technical terms – again: being-in-the-world, thrown-ness, *Dasein*, etc. – do not inherently entail pleasurable aesthetic experience. In fact, in *Being and Time*, Heidegger spends some time addressing *Dasein*’s discomforts (Heidegger 1962: 120). Heidegger’s term for *Dasein*’s discomfort is *unheimlich*, or not-at-home-ness (many of Cooper Marcus’ subjects, for instance, did not report happy phenomenological ties with their homes; Norberg-Schulz’s approach would be at more of a loss in explaining this category of experience). Also, in Heidegger, phenomenological experience is usually blind to locale per se.<sup>5</sup> Consider: the very notion of “thrownness” means one cannot determine ahead of time where one is thrown. For Heidegger, the thrown-ness of being-in-the-world is operative whether one is in Prague or Peoria, whether in London or Lubbock. But in his theory “towards” a phenomenology of architecture, Norberg-Schulz almost exclusively considers uplifting and aesthetically pleasurable experiences of places largely indexed to the empirical attributes of those places. This is why Norberg-Schulz features Prague in his *Towards a Phenomenology of Architecture* – and why Peoria, for instance, would be much less of an example for his agenda.

Prague is richer historically, thicker in social-cultural depth, and as a result of these and other factors, tactilely and sensually more stimulating. But by the time Heidegger’s phenomenology was translated by Norberg-Schulz for architectural theory, rich, thick, pleasurable aesthetic experiences of built environments became the major value of “phenomenology” for designers. The key here is not to critique

Norberg-Schulz for lack of faithfulness in applying Heidegger's principles to design; the key is to recognize that this is what "phenomenology" has come to mean for many in the design disciplines.

But phenomenology has another thread. For example: when we say an object's design conforms to "the spirit of the times," we are dealing with corporate phenomenology. Corporate phenomenology deals with (1) the movement and (2) the character of periods of cultural time as they affect design praxis, design experience, and design styles. In this thread of phenomenology, individual experiences are less in view; the focus is upon the cultural corporate whole. And to understand why this is corporate phenomenology, note that the *zeitgeist* of a cultural period has all the features of immediate individual phenomenology: it moves immediately (in the sense that it is always already in motion, without any one person "at the controls," as it were); and as it moves it self-reveals in material culture as the "shapes" of that culture. It is also easy to think of the spirit of the times as having its own ontology, or being, independent of the beings of individual persons (although it comprises them).

Individual as well as corporate phenomenology both issue from a preoccupation with consciousness, which began in the late 18th century and continued into the nineteenth. As philosophy shifted from theologically based derivations of knowledge to more humanistic ones, theories of knowledge became less dependent upon revelation, and more dependent upon theories of mind, and as we already noted, upon scientific deductions. Immanuel Kant's (1724–1804) theory of consciousness is the headwaters for both these threads of phenomenology. This is not the place for an overview of Kant's "critical philosophy."<sup>6</sup> Suffice it to say that Kant held to the unity of consciousness as the enabling basis for any true knowledge to be possible. The Husserl–Heidegger thread – that is, individual phenomenology – built on this by emphasizing the unity of consciousness and its surroundings for individual persons (again: being-in-the-world is one, not two, entities). This unified the Cartesian split between what an individual thinks (*res cogitans*) and what is out there (*res extensa*).

In contrast, G. W. F. Hegel (1770–1831) took Kant's theory of consciousness and asked this question: What if all individual consciousnesses were put together? After all, isn't the entirety of cultural interactions just such an integration? Hegel took this corporate consciousness of culture and used it to explain such things as shifts in aesthetic styles: from primitive to Egyptian to Greek art, for example (Hegel [1817] 2004). The emphasis is upon the block characteristics of entire cultures as they move through time; the art and architecture these cultures leave behind are the "shapes" of those cultures.<sup>7</sup> Heinrich Wölfflin's classic work *Renaissance and Baroque* stands as an enduring example of Hegelian corporate phenomenology applied to design-historical analysis. While most histories of design focus on the characteristics of periods of design, Wölfflin's is one of the few works that addresses cultural factors influencing shifts of style between periods, specifically, the shift from Renaissance to Baroque (Wölfflin [1888] 1968). In comparison to the Renaissance, the Baroque, perhaps in response to the Counter-Reformation, was more



dynamic, more scenographic; it emphasized mass over line, illusions of space versus clearly articulated surfaces; illusions of movement over Renaissance symmetry, and so on (Wolfflin [1888] 1968: 30–31, 73–88). The Wolfflin–Hegelian approach to explaining changes in design styles has not been followed much in the design literature, and this is to the detriment of this literature. For instance, such an approach can explicate much in the way of how block cultural percolations worked in bringing about the recent shifts from modernist to postmodernism to deconstruction to cyber-influenced design. The design literature awaits such a study.

#### *Application to design #4. Online participatory design communities*

The advent of the internet has increased opportunities to express the “block characteristics of entire cultures” in design terms. Here are some examples. Threadless.com, an online retailer of T-shirts, operates what Pisano and Verganti call an “innovation mall”:

By operating an innovation mall where 600,000 members submit proposals for about 800 new designs weekly, Threadless gets a steady flow of unusual and singular ideas. (Mall members and visitors to the website vote on the designs, but the Threadless staff makes the final decision on which ones to produce and rewards their creators. (Pisano and Verganti 2008)<sup>8</sup>

Another of the authors’ examples is Alessi:

Alessi, an Italian company famous for the postmodern design of its home products, bet that postmodern architecture would be a fruitful domain for generating interesting product ideas and that it could find the best people in that field to work with. It invited 200-plus collaborators from that domain to propose product designs. (Pisano and Verganti 2008: 80)

Made possible by the internet, these approaches are unprecedented in “taking the temperature” of a community’s aesthetic preferences. In this sense they are examples of corporate phenomenology as expressed in design processes.

#### *Application to design #5. Design ethnography*

A related way design process captures corporate phenomenology is the increasing use of design ethnography. Borrowed from anthropology, ethnography involves living with a community of people for a sustained period of time to obtain on-the-ground information about their cultural ways. Salvador, Bell, and Anderson used this approach by spending several weeks in northern Italy to obtain first-hand information about residential lifestyles in that region. They learned that kitchens

to their informants are what living rooms are in American residences: places of family gathering. Other findings: in northern Italy there is no such thing as “take out”; much of the food comes via family networks in the region; paper plates and plastic ware are non-existent; water is never drunk out of bottles (out of glasses instead), while coffee is always served in porcelain cups (Salvador, Bell, and Anderson 1999). This is information about “block” cultural characteristics that is difficult to capture by the usual client meetings that result in a written program – which, again, on phenomenological terms, would be second-hand information. Regrettably, the authors didn’t itemize the design decisions derived from their ethnographic work. But this task was assigned to graduate design students in a research methods class; one student phrased the exercise as going from common facts to artifacts. Their suggestions: a centralized kitchen interior with a large centralized table (*la tavola è la vita* – “the table is life”); cushy seating for long meals; a prominent but accessible place to display silverware and china; use of local materials and local labor. These are programmatic cues derived from “taking the temperature” of a specific corporate phenomenology.

#### *Application to design #6. History research linking design to cultural trends*

Knowing changes in cultural attitudes over stretches of history may be helpful in designing new environments for a particular region. One example is the work of the Green Architecture Research Center, based at the Xi’an Institute of Architecture and Technology in Xi’an, China. Since the early 1990s, the GARC has been instrumental in designing and building new residences in rural communities in a sensitive critical regionalist manner across China: from new sustainable cave dwellings in north central China, to rammed-earth dwellings in southern China, to solar-powered residences for rural Tibetans outside of Lhasa. (For critical regionalism, see reference to Kenneth Frampton in Application #3 above.) In the case of the cave dwellings, the GARC identified five stages in the history of cave structures. First, 2,000 years ago the cave dwellings were no more than holes dug into mountainsides. But second, as cave culture progressed, newer caves were given masonry fronts to signify economic progress. In the third stage, the dwellings semi-detached from mountainsides to become lean-to structures, this for both economic reasons as well as advancements in construction know-how. Fourth, more or less fully detached structures were nevertheless still called *yaodong* (caves) because of the historical significance of the cultural form. These stages were enough to inform the GARC to evolve a fifth stage: fully detached “cave” structures, two stories high, built using green principles (e.g., better ventilation, local materials, sod roofs for heat, etc.). The process was ethnographic in that the designs were evolved on site, with local users able to reject any designs they found to not conform to cultural tradition – for example, the signature semi-circular cave opening was a necessary carry-over from past stages. The point is that knowledge of the cultural evolution

of built forms through history – that is, knowledge of the corporate phenomenology behind those forms – was essential in deriving acceptable new designs for the local population.

### *Application to design #7. Corporate expression in design*

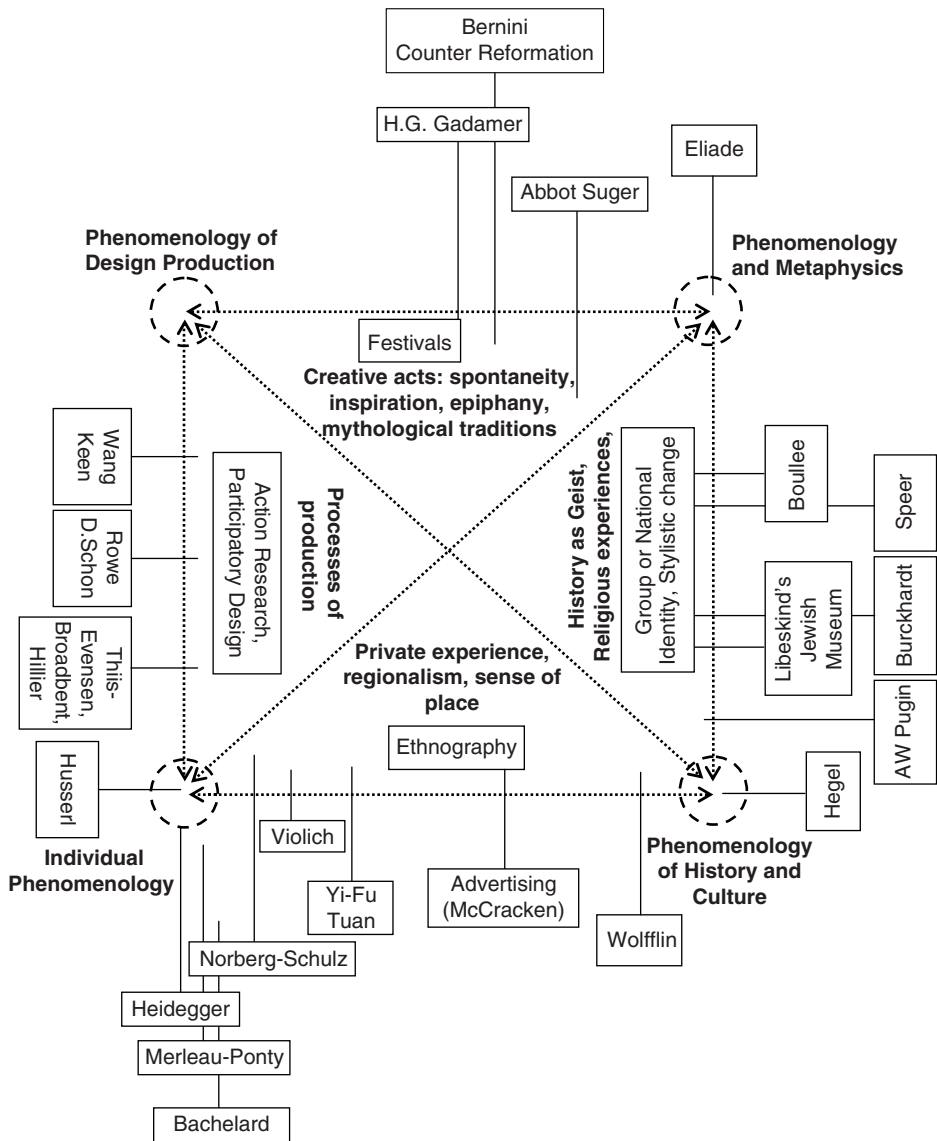
More will be said about this in the conclusion; suffice it to say here that computer technology provides new ways to enact Hegel's thesis (and Wolflin's application of his thesis) that a culture's corporate *Geist* (spirit) can leave empirical shapes of itself in art forms. We get a sense of this in Facebook's ability to track "Gross National Happiness" by compiling happy and sad words used by its users at any point in time. This index measured corporate sadness when Michael Jackson died, but great happiness when Barack Obama was elected.<sup>9</sup> As we will see, this technology can be harnessed to measure corporate phenomenology in design terms.

## **A Map of Phenomenology for the Design Disciplines**

Provided in Figure 1.1 is a map of phenomenology, locating four regions in which phenomenological research and/or design can be located (a version of this map was first published in Wang and Wagner 2007). These four regions are: (1) Individual Phenomenology; (2) Phenomenology of History and Culture; (3) Phenomenology of Design Production; and (4) Phenomenology and Metaphysics.

Given what has been covered earlier in this essay, regions labeled Individual Phenomenology and Phenomenology of History and Culture (lower left and lower right, respectively) should be clear. At the individual pole are placed many of the names already cited. At the history and culture pole, similarly, we see Hegel and Wolflin. But note where the Pisano and Verganti example is located (see Application #4); also note where the GARC-*yaodong* cave-dwelling project is located (see Application #6). These are located on the diagonal connecting Phenomenology of History and Culture with the Phenomenology of Design Production (upper left pole). This underlines the following: aside from locating the various regions, this map is useful in providing sliding scales to situate various examples of design activity onto the overall geography of phenomenological inquiry.

It is notable that, despite much literature on "design thinking" (e.g., Nigel Cross et al.), design process – that is, the processes through which designs are created – is not often explicitly connected to the phenomenology literature. This map does so, at the upper left region, which also includes the sliding scales that lead up to it, both vertically and diagonally. The creative processes by which designs come into being are indeed high in phenomenological characteristics. Peter Rowe, in his *Design Thinking*, documents the multiple schematic iterations design teams go through to give birth to a finished design concept (Rowe 1988). These iterations are *in situ*, on the spot, which is to say, immediate. Similarly, Wang and Keen directly adapted



**Figure 1.1** A map of phenomenology for the design disciplines. © 2007 David Wang and Sarah Wagner.

Husserl’s theory of the productions of consciousness to the iterative stages of the design of a house (Wang and Keen 2001).

In elevating immediate experience, and because of its engagement with being as such, it is easy for phenomenology to segue into religious themes. This is the fourth region of the map, at the upper right, labeled Phenomenology and Metaphysics. Note that this region can also connect to Individual Phenomenology (the diagonal link). Thus we come full circle back to works such as Holl’s St. Ignatius Chapel, or

Jones' Thornycrown Chapel. These were cited as having high individual phenomenological value because of their rich, thick tactility and sensuality (Application #2). But by having such attributes, they also create what Mircea Eliade terms "sacred space." Eliade posits that inhabitation itself – as in an inhabited world – requires a process of separating from (or an ordering of) chaotic space (Eliade 1959: 21–65). In this regard all designed, articulated spaces possess an element of the sacred; or at least they should. An example from history would be Abbot Suger's renovations to St. Denis in the 12th century, which marked the beginning of the Gothic period of cathedral construction. Motivated by the Platonic tradition, Suger sought to transform the existing structure into one filled with "wonderful and uninterrupted light...pervading the interior with beauty" (Suger 1946b: 101) and "[urging] us onward from the material to the immaterial" (Suger 1946a: 75).

Finally, note the headings in each of the pie-shaped quadrants of the map. Ethnography is the quadrant bridging Individual Phenomenology with Phenomenology of History and Culture. Here can be situated such design research as Salvador et al.'s ethnographic study of the design for Italian kitchens. Group or National Identity is the quadrant between Phenomenology of History and Culture and Phenomenology and Metaphysics. Throughout design history, group identity has been invoked to justify design actions. One recent example is Daniel Libeskind's rationale that the use of zinc panels in his Jewish Museum in Berlin is "very Berlin-like" (Libeskind 1995: 40). Inspiration/creative acts bridge the gap between Phenomenology and Metaphysics and Phenomenology of Design Production in that often the acts of creativity appeal to spiritual inspiration. Finally, Action Research bridges between Individual Phenomenology and Phenomenology of Design Production. This quadrant approaches design creativity more empirically, seeking to document the design process usually by protocols and/or other measurable means. Included here are also some forms of participatory design.

In sum, phenomenological inquiry takes facets of human experience largely ignored by "scientific method" and makes them material for rigorous study. Perhaps more importantly, it provides a philosophical basis upon which to situate many factors encountered in the design disciplines daily: immediate experience in response to environmental designs; understanding creative processes; aesthetic and sacred dimensions of space and place. These are all resonant with *phanesthai*. The map provided can be used as a tool to clarify the various regions of how *phanesthai* has been harnessed in service to design. It is also helpful for conceptualizing future efforts in design and research from a phenomenological point of view.

### **Conclusion: Connections between Phenomenology and Current Trends in Design**

Principles of phenomenology as outlined above relate to quite a few current trends in design theory and practice. Much of this has been enabled by computer technology. By way of conclusion, then, the following trends are noted: (a) erasure between

theory and praxis; (b) architectural versioning; (c) dynamic tectonics; (d) participatory design; (e) “sense of place” research; and (f) sustainable design.

### Erasure between theory and praxis

The ability of computer technology to execute millions of computations per second opens new possibilities to express phenomenological principles in the design realm. Representations in both 2D (computer modeling software) and 3D (rapid prototyping) of design concepts can be produced very quickly, so much so that the time gap between what the designer thinks (theory) and what he or she does (practice) is significantly reduced. Theorist Michael Speaks calls this thinking-as-doing, and regards it as a new kind of “design intelligence” that can be “tested, redesigned, and retested quickly, cheaply, and under conditions that closely approximate reality” (Speaks 2005). This trend resonates with phenomenology’s emphasis upon immediacy of experience, as well as the notion that *phanesthai* is the self-revelation of an object – in this case, as a design concept comes into being.

### “Versioning”

Perhaps a more powerful example of self-revelation and spontaneous expression – although at present it remains quite abstract – is the notion of design as “versioning.” Because of the computational power of the computer, a building can be thought of as a series, rather than as a fixed object. As every generation of design theory has in some way looked to nature for justification, versioning theory argues that nature itself is not static; it is rather “a continuous evolution of form” (Rocker 2011). Hence designed environments should follow suit. The most well-known theorist working in this trend is Greg Lynn. His Embryological House is not a single structure, but “a series of one-of-a-kind houses that are customized for individual clients.” Lynn argues that this is design that engages with “contemporary issues of variation, customization and continuity” (Rocker 2011: 8–9). Note how Lynn’s point goes directly to phenomenology of history and culture, to wit, that design needs to express the cultural *zeitgeist* of its times. Again, versioning (and its related concept “folding” – which refers to computation-based power to produce multiple versions of a design rather than one) is more experimental than practical.<sup>10</sup> But with no end in sight for what cyberpower can bring, it is relevant to note this trend in design thinking as a shift away from objects, and towards to processes, or series, that can accommodate (or reflect) ever-quickenning pace of change in culture at large. This relates to dynamic tectonics.

### Dynamic tectonics

For the city of Dubai, architect David Fisher has proposed a skyscraper with floors that rotate independent of each other, resulting in a constantly undulating form in

the skyline.<sup>11</sup> In the city of Doetinchem in the Netherlands, a structure (called D-Tower) measures the emotions of the city's residents and changes color in response.<sup>12</sup> That these projects forge new ways to capture "immediate" connections between users and built forms should be self-evident; the key here is to link these examples to *phanesthai*, that is, to phenomenology as expressed in designed objects. The attraction here is the bridge these projects provide between heightened individual phenomenological experience – in the sense of rich, thick, tactility and sensuality (see Application #2) – with visual-sensual expressions of corporate phenomenology (see Application #7). The D-tower reflects the "block" emotions of a community of people in empirical ways that, prior to computer technology, were unheard of. And a skyscraper with 80 individually rotating floors raises provocative links to the corporate participation of the residents interiorly (without the control of any one resident) as well as the visual participation of the entire community exteriorly, as the tower shifts and sways like an enormous plant blowing in the wind. This leads to "participatory design" and phenomenology.

### Participatory design, harnessed phenomenologically

The example given earlier of Charles Moore's participatory process in the design of St. Matthew's Church was probably not driven by phenomenological principles; it was simply a tactic to win over a group of parishioners with hands-on engagement in the design process. But "participatory design" itself offers significant connections to corporate phenomenology; and this is a connection that has not been addressed much in the current design literature. The D-Tower is an example of "participatory design" with enormous phenomenological implications. But in this sense of user-engagement, there is no reason why something quite technical – like "smart" or "intelligent" building design in which heating and lighting systems respond (immediately) to occupant behavior – cannot be included in the domain of participatory design in a phenomenological sense.<sup>13</sup> The operational question designers must ask is this: how can subjective preferences of clients or users, as a block, be captured real-time in design? Answering this question innovatively almost certainly ensures cutting-edge design solutions.

### "Sense of community" research

Robert Putnam is well known for showing that social capital, defined as "connections among individuals... social networks and the norms of reciprocity and trustworthiness that arise from them" (Putnam 2000: 19), has significantly decreased in American culture since the 1980s. In the design literature, the assumption is that physical design alone can more or less counter this trend. Here is Elizabeth Plater-Zyberk, designer of New Urbanist communities such as Seaside, Florida, and The Kentlands near Washington DC: "By providing a full range of housing types and



workplaces...the bonds of an authentic community are formed...By promoting suitable civic buildings, democratic initiatives are encouraged and the organic evolution of society is secured” (quoted in Boles 1989). On this view, just by arranging certain building typologies into certain figure-ground patterns will result in “authentic community,” regardless of the individual histories of that community’s occupants. We can call this the “if-we-build-it-they-will-come” fallacy. Another of Putnam’s books, one less well known, suggests a different story. In *Better Together: Restoring the American Community*, Putnam and his co-authors present 12 case studies showing how “sense of community” was achieved not by physical design, but rather by community action, led by visionary individuals (Putnam, Feldstein, and Cohen 2004). Here again, a correct grasp of corporate phenomenological theory on the part of designers might result in more attention paid to people rather than to physical design. It calls for a more targeted interdisciplinary mix of design know-how with social science research (e.g., active engagement with neighborhood groups, interviews, history research, etc.).

### Sustainable design

William McDonough’s Hanover Principles for sustainable design are as follows: (1) insist on the rights of humanity and nature to coexist; (2) recognize interdependence; (3) respect relationships between spirit and matter; (4) Accept responsibility for the consequences of design; (5) create safe objects of long-term value; (6) eliminate the concept of waste; (7) rely on natural energy flows; (8) understand the limitations of design; and (9) seek constant improvement by the sharing of knowledge (McDonough 2008). The principles can be subsumed in this definition of sustainable design: sustainable design entails blending human habitation into the cycles of nature as they unfold in succession, with the least disruption possible. Framed in this way, it becomes clear just how much the sustainable design agenda is congruous with the phenomenological outlook: the emphasis upon self-unfolding, for instance, or the return to a pre-dichotomous way of understanding human experience and nature as a single unity – that is, as being-in-the-world. It is to view design not as something that is done to nature, which would be, to return to our very first point, an active-voice approach to design. But design would also not be a passive reality. Sustainable design encourages design with a middle-voice attitude – much in the middle-voice spirit of *phanesthai* – so that the processes of nature can continue to emerge immediately and organically on their own, with the least disruption from human impositions.

Again, for most designers, “phenomenology” is usually limited in meaning to the design of stimulating environments that heighten aesthetic pleasure. Hopefully this essay has shown that, if the philosophical sources of phenomenology can be grasped, phenomenology can be applied to a much larger scope of design endeavors.



## Acknowledgments

The work and/or intellectual contributions of the following graduate students are present in this chapter, in alphabetical order: Maryam Afshar, Kyle Davis, Julia Day, Jonathan Follett, Jennifer Hohlbein, Isil Oygur, Mason Shaffer, Dana Vaux, Paul Yoon, Richard Xu.

## Notes

- 1 “Scientific method” can be traced to Descartes’ four-step method to certain knowledge in Section 2 of his *Discourse on Method*, written in 1637: (1) accept nothing as true until it is clear and distinct to the mind; (2) divide each “difficulty” into its component parts; (3) find a hierarchy of logic, going from the simplest propositions to the more complex; (4) make sure that nothing related to the analysis has been omitted. Descartes [1637] 1980: 41.
- 2 Alexander Baumgarten was the Enlightenment thinker who initiated aesthetics – the study of the beautiful, or of *taste* – as a distinct line of philosophical inquiry. Baumgarten’s use of the word *aesthetica* appears in his first major work, *Metaphysica*, in 1739. Even though Baumgarten explicitly used this word to designate the realm of sense, as opposed to the realm of cognitive (or theoretical) knowledge, the emphasis was upon the idea of sensuous *knowing*. In other words, it is still central to Baumgarten’s way of thinking that study of aesthetics be a systematic scientific discipline. Hence, in his day it was customary to assign theoretical knowledge to a “higher cognitive faculty” while the realm of *aisthesis* was assigned to a “lower cognitive faculty.” And the “ideas” related to this lower faculty were “confused,” or “unclear” ideas. See Barnouw 1993: 75–82.
- 3 This example is further addressed in Groat and Wang 2002: 119–121: “Design in Relation to Research.”
- 4 Jennifer Hohlbein, Kyle Davis, Jon Follett, and Paul Yoon, “Northwest Style Is Not Northwest Style Without Cedar.” Student final project in Arch 525 / ID 530 Architectural Theory, Washington State University, December 2010.
- 5 One might disagree with this by invoking Heidegger’s famous treatment of the bridge in “Building Dwelling Thinking”: it is the bridge that “gathers” the site and makes it a locale. The entire essay, it can be argued, is a refutation that Heidegger’s phenomenology is blind to locale. But this goes right to the heart of the Heidegger/Norberg-Schulz difference. Heidegger’s baseline treatment of his phenomenological terms (*Dasein*, thrownness, etc.) precedes his usage of those terms for analyses of certain topics such as building and dwelling, or works of art, in “The Origin of the Work of Art” (1951b). The terms themselves, perhaps as best defined in *Being and Time*, do not *necessarily* entail the pleasurable affections that come with dwelling, or with appreciating works of art. In this sense, Heidegger’s technical terms are well established philosophically before they are used for analyses of empirical engagements. Perhaps put another way, the ontology his terms describe does not depend upon particular empirical engagements. Norberg-Schulz reverses this order: empirical features are what they are – the “fascination” of Prague, the “grandiosity” of Rome, etc. – in order that phenomenological

- dwelling can be achieved. For the bridge reference, see Heidegger 1951a: 356. This edition also includes “The Origin of the Work of Art.”
- 6 For an accessible overview of Kant’s critical system, see Scruton 1983.
  - 7 Hegel’s philosophy does recognize individuals, but these are rare individuals who embody the *Geist* (spirit) of the times, and who thus can usher in, for an entire culture, the “shape” of what that culture is to be. Hegel called these “world-historical individuals.” And even though his attention was upon political figures (Napoleon, for instance), certainly the theory of world-historical individuals can be applied to major artists who shift the course of art history (e.g., Michelangelo, Stravinsky, Frank Lloyd Wright, etc.). See Hegel 1953: 34–43.
  - 8 Pisano and Verganti 2008: 78–86. References to Treadless.com are on pp. 81–82.
  - 9 Facebook measuring the mood in the US, <http://www.physorg.com/news174057519.html> (accessed October 22, 2010).
  - 10 It has been pointed out that “versioning” derives from non-Cartesian theories of space. But as much as versioning insists on a building as a series (rather than as an object), it still exists in physical context as (largely) a fixed reality: “there is a highly positive feedback between our Euclidean intuition and the experimental behavior of physical space” (Kinayoglu 2007: 18–19). The citation is from Poincaré, *La Science l’hypothèse* (Paris, 1902). <http://etd.lib.metu.edu.tr/upload/12608818/index.pdf>. Accessed May 18, 2011.
  - 11 Dynamic Architecture. <http://www.dynamicarchitecture.net/revolution/index.php?section=2>. Accessed May 18, 2011.
  - 12 For how this works, see <http://www.d-toren.nl/site/read.htm>. Accessed May 18, 2011.
  - 13 Although these are not from a phenomenological perspective (which is the point made above: they *can* be from such a standpoint). Here are three examples of intelligent building research: Cole and Brown 2009; Janda 2009: 9–14; Mahdavi 2009.

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