Representation and the Linguistic Imagination

I have been arguing for the importance of poetic narrative as a—generally overlooked—tool of architectural representation. While for a hermeneutic approach to architectural theory, historical narratives (like those in this book) are the fundamental source of orientation for philosophical questions and ethical decisions, literary narratives can contribute greatly to the design of programs for future living woven from significant actions, and to the configuration of properly attuned atmospheres. Fundamental to this argument has been the observation that the imagination is primarily linguistic, since emerging poetic language is inherently innovative and open; its very nature is polysomic and metaphorical. Much work is needed to develop methodological frameworks that facilitate the implementation of this insight in design, taking full account of the issues from the perspective of phenomenology and hermeneutics. The seemingly unshakable expectations of technological production are hard to question, yet it should become evident from these pages that the stakes for humanity are high, going far beyond mere issues of physical survival and economic development.

Though modern and contemporary architects have sometimes spoken of narratives and fiction in relation to their projects, it is not always obvious how such interests are reflected in their work. Often the concern with literature becomes vague inspiration (as might a concern with music or cinema), or a structural mechanism for organizing form. Dialogue among partners in an office or with clients has been theorized and even embraced in practice in recent years, often under the influence of the Frankfurt School, observing the importance of oral exchanges that may lead to design decisions. Such exchanges might be seen as a form of narrative, yet their underlying assumptions are usually the possibility of rational consensus and accommodation. These are excellent aims in themselves,
but they usually fall short of attunement: the conciliation of the creative capacity and ethical responsibility of the architect, as author, with the cultural and physical values needed to ground a project and produce emotive and meaningful atmospheres for human events.

On the other hand, given the linguistic nature of human cultures, even when language is not used self-consciously in design, meanings emerge that are specific and appropriate to given cultures and situations. Resonance among artistic practices in a particular time and place is common and has often benefited architecture in profound ways. Architects that have taken seriously such reverberations—like Le Corbusier, Luis Barragán, Frederick Kiesler, and Alvar Aalto, to name a few—have produced poetic atmospheres appropriate to culturally grounded situations. Nevertheless, the critical problems generated for life by the instrumental mentalities of planning and formalism to which I earlier alluded are prevalent in cities all over the world. While political and economic forces undeniably play a major role in this situation, it is certainly fueled by the current intentionality and modus operandi of architecture and building design practices in our technological global village.

In past eras, the spoken word was deemed central for making design decisions. It facilitated the client’s involvement as a fundamental part of the process, as in the exchanges between an abbot and the master mason in the Middle Ages, or with patrons during the Renaissance—Filarete famously called the client the “father” of the project, while the architect he characterized as the “mother.” Their oral intercourse was literally the seed of the project, fructifying into drawings, models, and buildings. The spoken word was also crucial to building operations; oral transmission was fundamental between the master or architect and the masons, leading to remarkable accomplishments, like the building of Milan’s cathedral (without a final “picture” of the building) in a complex and highly compromised urban site, or Michelangelo’s buildings, often in the absence of “proper” architectural drawings. Today, however, we would find it inconceivable to build without precise working drawings and legal documents, and the skeptical reader will rightly wonder about the contributing role of poetic words in the realization of a complicated building or urban design in view of our contemporary technological expectations.

Architects over the last few decades have been consumed with the promises of the computer and digital design software. There is a curiously uncritical optimism concerning these tools, based on the belief that they have brought about a radical transformation in design. The perspectival visualization of projects on a screen, the coordination of design decisions through programs such as Autodesk Revit, the recent trends in computational design where measurable data and parameters are transformed into uncanny shapes and architectural forms, and the production of numerous glossy renderings disseminated daily through the Internet all convey the feeling that an immense change has taken place. In a fundamental sense, however, this is largely a delusion. Elsewhere, I have explained at length how the fundamentally reductive and instrumental aims of such software were already present in Jean-Nicolas-Louis Durand’s early-nineteenth-century “mechanism of architectural composition.” The so-called “digital revolution” can only be grasped through a careful historical analysis and should in fact not be reduced to an issue of hand drafting versus computing. The cultural and epistemological transformations that took hold in Europe during the early nineteenth century and prompted architecture’s scientific reduction greatly explain why, as architects entered the age of computation, the tools chosen have been those that work in a totalizing abstraction: software such as Autodesk’s AutoCAD and Revit. Here I don’t wish to revisit these issues nor examine the larger particularities of digital design. My aim is simply to try to draw out some suggestions about ways the reflections in this book may have an impact on or profit from present conditions.

While dedicated architectural software affords the architect the means to produce seductively appealing renderings and facilitates formal innovation, there remains an uncritical assumption, inherited from the nineteenth century, concerning the univocal relationship between the drawings (or, at present, the digital model) and the building to come. This is the very premise of software like Revit that offers the user tools “to define forms and geometry as real building components for a smoother transition to design development and documentation.” The architectural design operation is therefore conceived as the production of the “picture” (a digital model) of a future building, with its components related syntactically at multiple levels (technical, formal, and so on), inherently resulting in technical and/or aesthetic, more or less self-referential objects. Since the software also optimizes the processes of construction, the dream (or nightmare) of seamless fabrication—an unquestioned expectation and
absolute value of the technological world first expressed by the likes of Durand and Jean Rondelet two hundred years ago—comes closer to realization. We can imagine building as one manufactures cars, starting with a stylish, marketable, and enticing picture, increasingly internalizing the external world into generalized parameters to produce buildings from the top down, as absolute manifestations of a creative will to power. This strategy innately curtails architecture’s referential potentiality as a necessarily emotional, kinesthetic, and multisensory form of communication, an atmosphere responsive to the natural world and specific cultural values; all issues that involve experience and language, and are irreducible to binary information.

Vilém Flusser has proposed a useful distinction between traditional images, such as painting and drawing, and technical images, in which he includes both analog and digital photography and imaging. Traditional images, he argues, are “first-degree abstractions,” in direct relationship with the concrete world. Technical images, on the other hand, are “third-degree abstractions,” since they are abstracted from “texts” that are themselves abstracted from the concrete world. Rather than referring to phenomena, like traditional images, technical images refer to “concepts.”

Flusser’s studies have been very valuable in their questioning of the naive polarization of “analog” versus “digital,” one that is often taken for granted and explains very little about technical images and our present dilemmas. While the distinctions drawn by Flusser in view of the images’ genetic constitution and their relationship to the visual world are helpful, there are more fruitful ways of understanding the problem. Placed within the framework of the present study, the technical image is actually made possible by the same disconnect between a reified nineteenth-century subject and his “objective” world that enabled both non-Euclidean geometries and modern “autonomous” poetry (like Mallarmé’s). In the world of architecture, it sees its inception in the teachings of Durand. The “virtual image,” in the sense often evoked today, fabricated out of “information”—1s and 0s—and translated into pixels, is already the underlying concept behind Jean-Victor Poncelet’s projective geometry (1821), nurturing the possibility of creating a world out of the individual mind—a geometry generated by mathematical functions—bypassing experience, both visual and linguistic. Flusser’s distinctions are useful for characterizing the nature of modern and contemporary architectural representation, but instead of conceiving of the break between the traditional and the technical image (exemplified for him by painting and photography respectively) in terms of the self-referentiality of the technical media (like chemicals or pixels), I would like to argue that the problem resides in the nature of their disconnect from language—not from a “visual” world, but from a world articulated by natural, inherently metaphorical language. This break is precisely what makes the label “digital culture,” often used by Antoine Picon to designate the current situation, a lamentable contradiction in terms.

Here it is important to briefly recall a point established in chapter 5. The visual world is not simply given as “pictures” in the mind’s eye. Visual perception, what we regard as our “high-definition” images, is constructed from a vast array of sensorimotor knowledge, both reflective and prereflective. Translating Husserl’s initial insights into the specific fields of contemporary artistic practices, Merleau-Ponty proposed an elaborate critique of perspective as “natural” vision in a number of essays. He established that “it is certain that classical perspective is not a law of perceptual behavior. It derives from the cultural order, as one of the ways man has invented for projecting before himself the perceived world, and is not a copy of this world.” In spontaneous, kinesthetic vision, things vie for a person’s attention. Once anchored in one of them, through a focal action, the person feels the solicitation of the others, which make them coexist with the first. In spontaneous vision, the inhabitant experiences “a world of teeming, exclusive things which could be embraced only by means of a temporal cycle in which each gain is simultaneously a loss.”

As I have already pointed out, Alva Noë and Evan Thompson have elaborated this position. Thompson explains that the content of our experience is not picturized in a number of ways; for example, given the kinesthetic nature of human vision (whereby the eyes and the head are always in motion), which picks up things in a scene and throws them into view, the focus is never uniform from center to periphery. There is no precise match between what we experience in perception and whatever internal representations are in our brains (an observation that always troubled Kepler), so that “we visually experience the world to be rich in detail not because we must represent all this detail inside our heads at any given moment, but because we have constant access to the presence and
detail of the world, and we know how to make use of this access.”¹³ Most importantly, “whatever impression we supposedly have of there being pictorial representations in our head when we perceive is not a first-person impression of experience but a third-person [ultimately Cartesian] theoretical belief.”¹⁴

The scene of spontaneous vision is of course the space of life and architectural atmospheres, and one that is at odds with a picture generated through Cartesian space (as in our computers), where “backgrounds resign themselves to being only backgrounds” and things no longer vie for the person’s attention: “nothing looks into one’s vision and adopts the figure of being present.”¹⁵ So we can dispense with the notion of architecture as an image in the creative mind of the architect, suddenly externalized on the proverbial restaurant paper napkin. Whatever is externalized was not already “there,” and depends greatly upon the local conditions: available paper, pens, or crayons, the texture and topography of the table, offering support, and the like. Classical (perspectival) painting, no less than contemporary painting, is a creation dependent on cultural (“linguistic”) intentions.¹⁶ In contemporary painting and literature, the artist or writer endeavors to restore “the encounter between the one who has to exist with what does exist.”¹⁷ If it is this very encounter in the world of action that the mediating devices in architecture must signify, it is clear that architectural drawings and models cannot accomplish their task by merely resembling the things of the world.

While in the far longer-lasting, premodern traditions of architecture representation functioned as a simile, taking for granted the imperative of translation between the “model” (or set of drawings, regardless of their specific nature) and built architecture,¹⁸ in the modern context the model functions more appropriately when it recognizes its affinity to metaphor, embracing its “split reference,” and thus potentially conveying appropriate affective and cognitive meanings. Indeed, Ricoeur writes that with respect to their relation to reality, metaphor is to poetry what the model is to scientific language.¹⁹ This is illuminating when we think of the functions of digital models in design. In science, a model is a heuristic fiction that seeks to break down an inadequate interpretation of the physical world. Owen Barfield has remarked on the grave dangers of identifying models with reality, a veritable idolatry that has dire consequences for scientific practices, as in the identification of the brain with “man” by some outdated neurophysiologists.²⁰ Extrapolated to language, the model corresponds to an extended metaphor: a tale, story, or allegory, even suggesting the possibility of “narrative models” in view of our findings in the previous chapter. The cognitive function of metaphor overlaps with the model. According to Alva Noë, a proper model is not reductive yet is always referential, a tool for “seeing as.”

In his most recent book Varieties of Presence, Noë elaborates on the enactive theory of perception and its understanding of visual images. He introduces the concept of the picture as model. All pictures, he argues, are actually models; they function not unlike the way a relationship between arbitrary objects on the table in front of a person may represent monuments in that person’s city by which he or she explains to a visitor how to navigate and arrive at a given destination.²¹ Models enable specific understanding in view of circumstances and interests; in architecture they don’t represent the absent building, for example, but they are their “representatives.” Anything can be a model, as the saltshaker can be a model of the Eiffel Tower under certain circumstances, but nothing is a model “in itself.”²² The issue is always relational, like metaphor. On the other hand, whether something is a fitting substitute, relative to certain purposes, can depend on its intrinsic properties.²³

This insight applies to all graphic modes of architectural representation; they must therefore always be considered carefully in view of a signifying intention. Since visualizing is actually not pictorial but “the activity of mentally representing an object or a scene by way of mentally enacting or entertaining a possible perceptual experience of that object or scene,” action (narrative) must be intertwined with the models that lead to architectural form generation. Thus we again conclude that, despite our assumptions, representations are not neutral—not even the supposedly objective “picture” of the future building in Revit. Unless this condition is understood and incorporated into the processes of building production, the result will always be disappointing: the material “dumbness” of the built environment resulting from reductive fabrication. Given the resonances between model and metaphor, we may also add that there is a difference between a model that explains a more or less partial aspect of a phenomenon and one that achieves the status of a work of art capable of augmenting lived experience—in parallel to the very difference between simile and metaphor, whose copula always involves an ontological wager.
To further elucidate the possibilities of the model in current architectural representation I would like to return briefly to the eighteenth-century work of Giovanni Battista Piranesi, whose significant accomplishments I have already mentioned in previous chapters. By challenging the "reality" of Cartesian (three-dimensional) space as the site for the poetic imagination of the architect, Piranesi's Carceri etchings, particularly their dynamic transformation from a three-dimensional "first stage" into an exploded "second stage," inaugurates a tradition of modeling in architecture that is of great significance in our age of digital media. They are both "models" and "works of art." Piranesi's works are places inhabitable by the imagination, leading to a poetic revelation: the depth of experience that is other than a banal rendering of depth in optical perspective and that we have identified as a necessary precondition for Stimmung. By implicitly questioning their possible translation into three dimensions—it is "impossible" to build them as if they were coherent, with orthogonal plans and elevations at scale—Piranesi's "second stage" models function metaphorically, offering the possibility of "seeing as" that open up a world of fiction. They are inherently noninstrumental. Indeed, these models challenge the assumption that the appearance of the world can be accounted for by an "optical image" self-constituted in the back of the eye's camera obscura and magically transferred to the brain to constitute our consciousness. Piranesi's works reveal, instead, the significant human "image" as a construction, a metaphor, a fiction, in the sense we outlined in the previous chapter: an image "made" by each of us as we literally construct our perceptions by "acting" in the world, embedded in language as a fully embodied consciousness. Conversely, were we to build these spaces as atmospheres for human action, a further imaginary translation involving poetic language would be indispensable.

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Two modern architects, Claude-Nicolas Ledoux and John Hejduk, are significant for having explored literary language and its relationship to architectural drawing as a means of architectural representation in their theoretical projects, reconciling the imperative of a creator's productive imagination with a careful consideration of cultural mores to achieve a poetic and ethical architecture of attuned situations. Their oeuvres are vast, and it would be impossible to explore them extensively in this chapter, but a few words will here suffice as examples for our present argument.

Ledoux was a well-known and controversial practicing architect, closely associated with the aristocracy of the French ancien régime. He was the architect of the Salines d'Arc-et-Senans (1775–1780), a salt mine and processing facility near Besançon, and of the Barrières (tollhouses) and wall around Paris (1785–1789), an unpopular project built on commission from the Fermiers Généraux for the purpose of levying taxes on merchandise entering the city; this project nearly cost Ledoux his head at the guillotine. Despite his contentious practice, he was aware of the need to rethink the role of urban architecture beyond monarchical regimes, based on a new sense of social responsibility and respect for nature that would result in greater human happiness. He dedicated many years to writing his massive book L'architecture considérée sous le rapport de l'art, des moeurs et de la législation (1804; 1847), a remarkable and original text, where theory becomes poetic narrative and the story describes the project for the city of Chaux, the model (in the sense outlined above) of an ideal city, conceived by him as "crowning" his realized project for the Salines. The projects for the institutions in this city are housed in simple geometric volumes and their combinations, in accordance with a Newtonian and deistic concept of Nature—forms he deemed more appropriate than the older (and decadent) classical syntax—and novel programs that strive to establish a new harmonious urbanity for a postrevolutionary society. Bringing together insights from Le Camus and Boulée, the seemingly objective reality of the architectural structures that are proposed as drawings is complemented by descriptions of life experience. New institutions are created and designed, and the character of architecture—both its intellectual and moral meanings and its emotional impact—is articulated through literary language.

The title of Ledoux's book is itself noteworthy. He is in search of an architecture whose meanings may be drawn from art, particularly from painting and its ability to render eloquent and harmonic atmospheres (a concept present in earlier character theory), and from mores or customs, that is to say, from the values embodied in the citizens' everyday life and initially manifested as habitual actions. Thus architecture, shaping habits, could set forth an urban environment that was truly desirable, just, and ethical, operating in analogy to legislation. It could seek to frame human actions in view of a good life in accordance with nature, a concept most likely inspired by Jean-Jacques Rousseau.24
While written in prose, Ledoux's text is highly poetic, often taking a grandiloquent tone. It describes the experiences of a traveler visiting the city, yet the story often disappears amid the characterizations of the human situations framed by the new architecture and the urban order. Despite some formal similarities with later utopian social organizations, Chaux is not a "panopticon"—an instrument of political power, control of nature, and surveillance. Rather, the issue for Ledoux was to consider new possibilities for the space of appearance: a public space that might be effective after the fall of the old regime, framing both the rights and responsibilities for a new human subjectivity. The latter, for Ledoux, involved in particular a recognition and respect for the natural environment. This is the grounds for a natural sense of morality—a deistic divinity present in the natural order is invoked frequently, and Ledoux asks rhetorically why he has designed nature with such perfection, yet supplied so few rules for the human architect to do a proper job. This is not nature reduced to resources (Heidegger's "standing reserve"); the oval shape of the overall plan of Chaux celebrates the geometry of the heavens as the earth moves around the sun; nature itself, instead of walls, provides the limits of the city.

Ladoux's language is descriptive of situations, but never of the forms of the buildings that give them place. The envisioned architecture appears in the juxtapositions of text and image. The architectural drawings show precise plans, elevations, and sections (which nevertheless are not always constructively coherent), creating the sense of monumental solidity and objectivity, expressing with the limited choice of simple geometries the moving and poetic character of the institutions and their "proportionality." In counterpoint, the texts describe ephemeral situations that impact human action, mold behavior, and frame habits, revealing self-evident values that constitute customs and thus contribute to a happier life. This life foregrounds a sense of presence and feeling as sensuous experience, a "thick" present in the sense we outlined in chapter 5. Furthermore, as I suggested, the tone of Ledoux's language itself is deeply poetic: expressive through its rhythms and turns of phrase, and not only through the semantic meanings of the words.

A few prominent examples of institutions may be mentioned in closing. The well-known house for the caretakers of the city's water source (the river Loue) is highly innovative, articulated through simple volumes whose geometry originates in nature, like the circles made by a stone dropped into a pond. The intention is to convey the purpose of the building while recognizing the precedence of Nature, framing the life-giving water, so crucial for the common good, as it comes gushing through from the depths of the earth. The perspective emphasizes through its atmosphere the appropriateness of the form and its connection with the qualities of the source's natural setting. The situation portrayed in the text, however, is about family life and its values, about playing billiards in the room on the top floor.

Several projects for new institutions celebrate such values as peace, memory, and virtue. In this context, Oikéma, a brothel for the city, stands out and resists easy interpretation for appearing to encourage vice rather than virtue. Ledoux plays with the "character" of his architecture by appropriately "hiding" its reference in the plan (where it takes the form of an erect phallus), as opposed to the evident eloquence of symbols in his other institutions. In this instance the story told is about the sensuously titillating experience of visiting the brothel, its vibrant diverse atmospheres eloquently portrayed, along with its importance, since sexuality is at the root of human actions and desire is the basis of all meaning. Imagining the outcome of different scenarios through literary imagination, Ledoux demonstrates how a visitor would realize the futility of a sexual encounter devoid of a spiritual dimension, thus apprehending the value of reciprocal and respectful romantic love as a foundation of society. As such, we can only grasp the project as a theoretical proposition, necessarily "told" as a story, revealing what may in fact be most essential for the social fabric of the new city.

His project for the cemetery of Chaux is also remarkable. The building is approached on the ground; all that appears is a pristine half-sphere suggesting its completion underground. Ledoux describes the terrifying experience of entering the underworld and confronting the emptiness that is death; as you glance into the central sphere pierced by a single source of light, you are frozen with fear and terror. This is resonant with the emotions associated with our finitude and with the sadness of parting from a loved one. And yet, the spherical shape also reveals, in the paradoxical drawing of the "elevation," a vision of the universe—of "outer space"—filled with planets and stars, the light and order of divine providence: not a religious paradise but an understanding of purpose for a human life well
lived, as Ledoux himself writes, celebrated among the atoms of light. This extraordinary juxtaposition of a vision of the light-filled cosmos with the frightening emptiness of the cemetery reveals the importance of metaphor and the poetic word itself as tools of representation and kernels of architectural meanings—obviously demanding further poetic translation if the model were ever to materialize as a physical building in the world.

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John Hejduk is perhaps the twentieth-century architect who has most thoroughly explored the relationship between architectural drawing and literary language. For his deep insights into the nature of architectural representation, his work also belongs to the critical tradition initiated by Piranesi, encompassing works that are poetic precisely by virtue of their distance from the world of practice, manifesting the characteristics of modern poetry as described by Paz and as expected by romantic philosophers. For this reason, his drawings are not representational in the conventional sense and operate more like metaphors or models, in the way described above. He himself spoke of his books as his “works of architecture.”

It would be impossible to do justice to the richness and heterogeneity of Hejduk’s work here. His most fruitful projects addressing the overlaps between literary language and drawing are his “Masques,” which themselves display a great diversity and almost defy characterization. He has already introduced his Victims project. For the purposes of this discussion, I will only speak briefly about some aspects of his Lancaster/Hanover Masque, given a final form in a book published in 1992. Like some of the other Masques, the Lancaster/Hanover Masque proposes new ways of dwelling in society, new urban organizations framed by an appropriate architecture. Taking the “program” as a fundamental aspect of the project, one that is rendered into literary language, Hejduk’s work also inherits the concerns first introduced into architecture by Ledoux to contribute to a new “social contract” in the sense we outlined above. In Hejduk’s project, the central area of the “farm community” is designated by an open quadrangular space, marked as “Void” by the architect—a “space of appearance” framed by four “houses” on two opposing sides, the Court and Prison House, and the Church and Death House, and two facing walls with thirteen suspended chairs on them, interweaving the biological and political life (zoon and bios) that make up human settlement. Hejduk thus recovers the understanding of such space of communication as the very essence of the polis/civitas: itself the ground and sufficient precondition of any further architecture as had been suggested by Vitruvius. He characterizes the drawings for this “kernel” of the city as an “x-ray ... apperitions ... that may seem somewhat ethereal [yet are] in fact absolutely precise: that is, everything drawn is sufficient, no more—no less.”

These remarks come from a short passage entitled “On the Drawings,” where Hejduk (exceptionally) introduces his work and discloses some of the intentions, underscoring his use of literary text and drawings. He points out that the texts of the Masque are meant to explain the community’s “functions,” the ritual and theatrical dimension of life, while the “drawing is like a sentence in a text, in which the word is a detail ... a detail that helps to incorporate a thought.” While Hejduk is referring here to the specific drawing of his Court House project, he believes his drawings for all sixty-eight structures of the Masque, in many cases enigmatic composites of plan, elevation, and section superposed in a single image (never merely conventional, instrumental graphics), “reveal the whole structure ... the whole story. It’s life that is there.” It is important to emphasize how Hejduk depicts the “emergence” of poetic language and drawing as interwoven moments; the drawing is “propositional” (like a sentence, the unit of discourse, in the terms of Ricoeur discussed in Chapter 6); it “encompasses the whole of a dematerialized thought.”

Like many of the others in Hejduk’s oeuvre, this Masque is organized in terms of “objects” and “subjects,” presented as columns on a page, numbered and arranged face to face. The “objects” are architectural structures with names and drawing(s), often described in diverse, appropriate terms: from technical specifications, to literary or artistic references (for instance, Edward Hopper’s paintings for the atmosphere of the hotel rooms), to modes of operation (the small Ferris wheel completing a revolution every twenty-hour hours that is “The Time-Keeper’s Place”). To each of these corresponds a “subject,” an inhabitant with a life story expressed in poetic yet precise language. These are engaged in activities and sometimes in interactions with other “subjects,” often revelatory of human purpose and the spiritual dimensions of the quotidian—for example, the citizens who paradoxically become observers participating in the public space, easing themselves into the chairs on the wooden walls to
contemplate how “the old cloth of the spinning wheel is placed in the Voided Centre and through age and the normal elements becomes dust.” For Hejduk, architectural meanings are only made manifest through a lived life (action, for which the architect is also accountable). This life is lived in a physical, formal context framed by the designer, one that may afford the proper attunement between “objects” and “subjects.”

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Digital design software, substituting for conventional architectural drafting, has unquestionably played a part in the continuing impoverishment of the built environment in our exploding universal megalopolis. Implicit in the software is an instrumental imperative that devalorizes the crafts that had formerly been involved in the translation of drawings and models to buildings. Its facility to manipulate form has generally resulted in blindness to the experiential meaning of materials at the expense of formal innovation. Dedicated architectural software has enabled extreme standardization and gratuitous novelty: formal repetition, giving rise to identical buildings with homogeneous components, and one-of-a-kind sculptural pieces, often assembled from complex heterogeneous components, yet both unresponsive to their location (cultural and physical) and the preexisting qualities of place. Indeed, these powerful tools that have captivated building practices the world over participate in a societal tendency to engage less and less with the physical world around us, trusting GPS for orientation, Facebook for our “social” interactions, or Google to supply all the information we need to know about a place. The result is a world designed for a technological way of life that curtails our sensorimotor skills, a flattened world that as a constitutive part of our consciousness enhances our sense of nihilism.

As I started to suggest above, however, despite this dominant trend, fueled by society’s unquestioning belief in the reduction of reality to numerical data (“information”—assumed to be the “intelligence” or even the potential “human consciousness” of the machine), the historical roots of our problem run much deeper, and cannot be attributed solely to digital media. The digital tools are not the “cause” of our pathological environments. The task that stands before us, if we wish to design a more meaningful and healthy environment, is to engage the tools critically, mindful of the observations that have been raised in these pages. This task must necessarily be for others to pursue, but some observations may be drawn. Indeed, besides a need to maintain a place for different modes of graphic expression that involve the body in continuity with gestures and skills like hand-drawing, physical modeling, and working with materials, all of which actually qualify our understanding of reality and thus should not be regarded as merely reducible to computer graphics, in view of our argument it seems particularly crucial to seek ways to harness the linguistic imagination to the digital tools themselves.

Is it possible to “return” to the world of experience through mediations that reduce the wholeness of such experience to a binary code of 1s and 0s? Obviously, given what we have discovered about the opposition between natural and algorithmic languages, the problem is not simple. While the tendency of digital technologies is reductive and substitutive, it is evident that the media engaged by artists can augment experience by revealing new encounters with reality, much like Cézanne, for example, accomplished through his numerous paintings of Mont Sainte-Victoire that obsessively questioned the equating of visual perception with optical perspective. In a recent book on dance, digital technologies, and phenomenology, Susan Kozel insightfully describes her experiences as performer in the installation entitled Telematic Dreaming by Paul Sermon. Lying on a bed, her image was projected live onto another bed located in a separate room where any visitor could interact with her virtual body. Viewing a projection of her own body on the other bed, she describes how she could at times feel great intimacy while at one point she became distressed, as she felt violated by a particularly cruel guest. Kozel concludes that the “virtual,” when properly understood, has ultimately little to do with disembodiment and computer screens. Drawing particularly from Merleau-Ponty’s late philosophy and his concept of flesh, she points out how this notion is consistent with his understanding of the prerelative as a region prior to the duality of object and subject. Merleau-Ponty writes: the flesh “is not matter, not mind, is not substance. To designate it we should need the old term ‘element,’ in the sense it was used to speak of water, air, earth and fire. . . . [It is] the formative medium of the object and the subject . . . [being] incomparably agile . . . [it is] capable of weaving relations between bodies that this time will not only enlarge but will pass definitively beyond the circle of the visible.”

Understanding virtual experience as an iteration of the flesh of the world, Kozel demonstrates how participatory and responsive events, in
her case dance performances that include digital telepresence, challenge the dualistic concepts prevalent in Cartesian space, revealing significant depths and fostering intersubjective communication.\textsuperscript{34} If, as V. S. Ramachandran famously wrote in regard to the phantom limb phenomenon, "Your own body is a phantom, one that your brain has temporarily constructed purely for convenience," explaining why "[i]f your hidden hand and a rubber hand in front of it are stroked simultaneously while you concentrate on the rubber hand, you will feel the sensation on the rubber hand," there may be grounds for the belief that moods can be simulated.\textsuperscript{35} In other words, it is possible to experience one's sensations in another object. We may recall that for enactive theory, moods and feelings are not "internal," they are in the world, a result of the very conditions of embodied consciousness. More recently, BeAnotherLab in Barcelona, an interdisciplinary art collective dedicated to investigating embodied and telepresence experiments, has been running "The Machine to be Another," where participants, usually in pairs, wearing immersive head-mounted displays, experience their movements while seeing the body of the other. The performances offer fascinating first-person perspectives on gender and racial difference.\textsuperscript{36}

Translating this understanding of virtual reality into tools for graphic representation that may result in nonreductive and narrative-driven models for architecture, however, is certainly not easy. Rather than maintaining the usual "third-person" relationship with his architectural models, the designer, in order to ascertain the moods of atmospheres for human action in a virtual world, would have to occupy a "first-person" position. The "interface" for the design of not-yet-existing environments is usually a screen of some sort, which, as I suggested, is at odds with spontaneous visual perception. Video game software designers have better explored the first-person position behind the screen. But in some circles, there is excitement about the possibilities of bypassing the screen through immersive environments such as those described above. While provoking human consciousness to recognize itself as another is not difficult in such immersive environments, particularly when movement is limited or carefully choreographed between two people, simulating spontaneous vision in a purely visual designed environment is another issue. The first-person interaction with the virtual world must be like in the lifeworld, kinesthetic and synesthetic, sensing the body moving through the room, drawn to get a better grasp of what's going on, and so forth. This is possible in performances and art installations that depend upon interactions with a physical environment, but is hard to imagine in a visual model of a nonexistent building. The ultimate simulation of spontaneous perception in time and space—of depth—is probably impossible, since embodied perception is always an enacted solicitation rather than a passive optical experience, the backing away from large things in order to better grasp others close by, the feeling of being attracted by some colors (always shifting in ambient light—color is another aspect of quotidian embodied perception that is very difficult to simulate in digital environments) while recoiling from others. After pondering this issue some years ago (while still taking the computer screen as a necessary interface), Hubert Dreyfus concluded that "it looks likely that in the virtual world the mood of the background space cannot come to resemble the mood of a similar space in the real world and so give guidance to the architect."\textsuperscript{37}

Recent modeling software has even attempted to question its presumed Cartesian ordering systems to allow for a more embodied engagement with the process—as, for example, is the case with 3ds Max and other three-dimensional animation and rendering programs where the camera can simulate our vision so the designer/inhabitant can move around the designed building. This is of course an intriguing development, albeit one that to a great extent still represents a fallacy, since our vision is not merely homologous to photographic perspective. Even more sophisticated recent software (although extremely difficult to use properly) allows one to work in non-Cartesian space and draw without having to deploy precise measurements, facilitating drawing as a thinking process. Such is the case with Maya, software initially designed to create artifacts based primarily on narrative structures, as with interactive 3D applications, video games, animated film, and visual effects.\textsuperscript{38} recently engaged by some architects. At McGill University, we ran a research project on the use of digital media in design using software designed for the entertainment industry (Crytek's CryEngine and Unity3D), intended to create atmospheres in which a narrative could be constructed.\textsuperscript{39} Models for such applications might be narrative video games now on the market that center on telling stories and creating different experiences for the game players that "act" in the environment, similar to open-ended versions of cinema. Some of these games tease out connections between actions, stories, and narratives, often to be
discerned by the game player, and frequently in collaboration with other players.

What always makes this issue truly complicated is the discrepancy between the way the software is intended to operate and the way architects may use it, as well as the fact that software tends to be more and more complex, such that to adapt or subvert it in view of the designer’s aims requires a very deep knowledge of the program’s “digital architecture.” In the end, the issue for the architect is to skillfully master the design tools available in view of an expressive intention that recognizes the primacy of the world of experience, the meanings already given in the natural and cultural worlds and articulated in poetic language. This is still a tall order for present digital media.

8

Architecture and *Spiritus* in the Twenty-First Century

I have sought in these pages to provide the historical context of the concept of *Stimmung*—atmosphere—in architectural theory, traced its proper foundations in phenomenology and cognitive science, and drawn a line to the linguistic imagination. I have suggested this may be a strategy for a meaningful architecture in the twenty-first century, one that, while “authored,” may truly take into account the values and habits of the diverse cultures on our compressed planet. Much remains to be researched and tested to find appropriate tools of representation to achieve this aim, finding methodological strategies to implement the literary imagination in design while engaging other contemporary tools of imaging and production. In this last chapter I wish to elaborate upon some of the central questions that have been raised throughout this book, summarizing our findings and reaching some additional conclusions.

Even after we correct our understanding of aisthésis to grasp, as I have explained elsewhere, following Hans-Georg Gadamer, “the relevance of the beautiful” for the prospering of human cultures, architecture stands apart from all other arts.¹ As numerous excellent studies have demonstrated, our discipline shares many attributes with art forms that include temporality as an aspect of their configurations, such as literature and cinematography.² The moving image emulates human motion, and cinematography’s techniques of montage, framing, and collage can be profoundly instructive in the creation of moods. With painting and sculpture, also evidently media of emotions, architecture shares its lasting presence as object, one that has the capacity to move us regardless of our relationship to the rituals and habits of the culture for which it was produced. Something similar is obvious, however, in major literary or musical monuments from past epochs; in all cases, works gifted to us in the present