

# 4 FIGURATE AND SPECTRAL ARCHITECTURE

*Of the Lithic, Ferric, and Plastic*

## Hard and Soft

How nonliteral is our notion of the figure? Generally, it is supposed that the figure of speech, be it in the form of metaphor or any other type of figuration, by definition excludes the literal. In metaphors such as “the wheels of justice” or “the fruits of knowledge,” the image of the first term is transferred or carried over—the etymological meaning of the word metaphor—to a second term making the combination a figure of speech. The figure is a matter of doubling, yes, but moreover a matter of what we could call a dissimilar mimesis,<sup>1</sup> since without exception it concerns the likening of two wholly unlike terms. What exactly is transferred and in what direction? That is not so easy to say. On the one hand, it is precisely the literalness, the slow but sure turning of wheels and the juiciness of fruits that gives justice and knowledge more tangible contours and weight. On the other hand, the reverse occurs too, the abstract concepts twist the literalism of the first terms, making wheels a model of logic and persistence and fruit one of growth and fertility. While the two terms mimic one another, they do so in very different ways by selecting different characteristics from each other in order to produce a convincing likeness. Though in their everyday usage the figurative and the literal seem sharply contrasted, reality is more complex. The figure cannot be identified with either of its terms. A metaphor is not the image of one term having been transferred to another; it is that very transference itself, as a purely tropic transition.

For this notion of the figure and figuration, we have proposed the term “figurate,” distinguishing it from both the figurative, with its emphasis on mimesis, and the figural, accentuating the emergent nature of *physis*. Even though we have been able to create a larger framework that positions the figurate between *physis* and mimesis, we should reiterate and develop this concept further within the context of

architecture and architectural history. If it is true that architecture is structured by the sequential transitions we discovered in Paleolithic caves—stone-water, stone-image, stone-spirit—we should be able to trace such transitions in the history of architecture. This is necessary not only because of architecture's prominent place in the machinery of grace but also to understand the role of the grace machine in such a history. Erich Auerbach stresses this point again and again in his study of the figure, the 1947 book *Mimesis*. It wouldn't go too far to say that his book argues that history is the history of mimesis, for original and copy are separated from one another in time and "contained in the flowing stream which is historical life."<sup>2</sup> As is evident from the book's subtitle—*The Representation of Reality in Western Literature*<sup>3</sup>—Auerbach views the figure within the conceptual framework of the figurative. Interestingly, one of the central concepts he uses to understand the role of the second term, i.e., the copy, is "fulfillment," a term with a messianic as well as hylomorphic ring to it, as if it fills the mold of the original, primary term.<sup>4</sup> By one thing fitting in another, what Auerbach calls a temporal, horizontal relationship, historical events precede others while functioning as their original model. Because such a structure transcends the domain of cause and effect, Auerbach also suggests a "vertical" relationship that connects things via a "spiritual act," alluding to the messianic character of fulfillment: the second term carries out the promise of the first.<sup>5</sup> The carrying over of the figure becomes the carrying out of a divine promise.

Gilles Deleuze, the philosopher of the figural, stresses the spiritual too, yet on a far smaller scale, as a "spirituality of the body," where the body functions as "the material of the figure."<sup>6</sup> Basing these observations on the paintings of Francis Bacon, the French philosopher repudiates any possible form of mimesis. Indeed, all the paintings are, in their search for what Deleuze calls animal spirits, produced by a complex set of "wipings," "deformations," and "spasms," words deeply influenced by the deconstructionist age Deleuze worked in.<sup>7</sup> By kneading the paint as primordial matter the figure arises from an immanent plane of carnal sensations; destroying even the likeness to itself, it becomes a product of blind emergence, of morphogenetic *physis*. In that sense, history does not even exist for Deleuze; since every event counts as original, it directly turns against visibility and consequently pays the price of unsightliness and monstrosity. In contrast to Auerbach, he fully appreciates that the spirit is one of self-movement and horizontality. After all, the man-animal, as he calls it, is an automaton, a self-mover. In his conception such movement completely destroys and "decomposes" the posture of the body; a thought that could not be more diametrically opposed to the theory of grace, which states that movement invariably leads to the composition of the figure. Deleuze is not mistaken in the view that the figure opposes the notion of structure, the theory of grace supports that wholeheartedly, only in the view that the figure is the mere incarnation of such a theoretical opposition. Deleuze's—Bacon's—figural depictions only stand upright because they start out as mimicking bodily structure to then be deconstructed by wipings and spasms; they do not stand by themselves.

As we saw earlier, grace acknowledges weakening and sideways movements solely as the flexible mobilizing of the members to create stance. Deleuze's plane of flesh is, we should keep in mind, exactly that, a plane: by definition it cannot explain verticality. The implicit verticalism of a term such as "emergence" cannot exist without incorporating a form of transcendence.

So far the arguments of the two theoreticians of the figure seem to be mutually exclusive. For Auerbach, all things are images, externalities, since they are enveloped and carried along in the light of divine providence. Things can move all right, but only in the realm of an external consciousness. For Deleuze, all things are flesh, pure bodily interior and sensation while the image can only become visible as a distorted image. His figures emerge in the light, yet are unaware of it. They move while driven by dark, internal forces. The figurate in its turn accepts exactly one half of each position: it accepts mimesis as the doubling of two images, on the condition that it detours via the interior of *physis*. It acknowledges the inside-out procedure of emergence as an extension of the outside-in procedure of mimesis, and vice versa. Or, when formulated in terms of hylomorphism and morphogenetics: figures are cast in a mold insofar as it offers enough room to grow. So, Deleuze is right, there is a fundamental weakness and softness to things, only to prove Auerbach's point that softness allows them to mimic others. As we have seen in the case of both the Minotaur and the Paleolithic shaman, man turns into a man-animal by procedurally internalizing the animal. Man's softness, so to speak, enables him to partially transform into an animal by mimetically absorbing images of animals and living between them. While he mirrors himself in the animal, he changes internally.

In short, the procedure is contrapuntal, not dialectic, which is essential when raising the question of history. The method of grace is not to oppose two nouns in the hope that they will be hyphenated, but one becoming adjectival to the other. Contrapuntal means that in the juxtaposition of soft and hard or self and other, one term is internalized as a gift, as an appearance plunging into the depths of matter to re-emerge again as an appearance. What enables this is neither a realm of pure, universal consciousness, nor of pure internal sensation. Dialectics, as we know, is the spiraling history of thesis and antithesis, of mold and form, a history of alternating overpowerings. It is no accident that Hegel's most important chapter in *The Phenomenology of Spirit* discusses the role of consciousness in the relationship between master and slave (*Herrschaft und Knechtschaft*),<sup>8</sup> which inevitably turns out to be a story of self-consciousness. How could such terms ever be synthesized when one never internalizes the other, that is, without the Self turning into the Other? The contrapuntal structure of grace writes another type of history, one fundamentally of empowering and enabling. And since the latter word means "inhabiting," architecture plays a central role in this history. It is a history of soft and hard, or as we called it before, of weakness and strength, of *arsis* and *thesis*, and though it follows the cyclical structure of gift exchange and not the linear,

progressive model of ever-increasing spirit, it is based on a similar triadic system, what Hegel called a “triplicity.”<sup>9</sup>

The first thing we could say about a possible “phenotechnology of spirit” is that it would be a technological history, since in the transforming—Freud would call it *Umformen*—from thing to appearance, which is what the figure does, technology is indispensable. All procedures of figures coming into existence—meaning things as soft-hard or weak-strong constructs as well as thing-appearance or matter-image entities—are technical procedures. It is a history of a far wider distribution of spirit and consciousness than the merely human spirit can explain, which is the history Hegel wrote. Technology is what agitates and mobilizes the softness in matter to produce figures. Therefore it can never be a dialectic history of soft and hard like the phenomenology Bachelard conceived in his two books on the subject, *Earth and Reveries of Will* and *Earth and Reveries of Repose*. Considering that some of their chapter titles—“The Cave,” “The Labyrinth,” and “The Serpent”<sup>10</sup>—discuss topics so close to our own examples, we should first expand in more detail on the differences between phenomenology and phenotechnology.

Phenomenology is descriptive since it records how figures appear in the human mind; it is bound to the spirit, or as we formulated in the second chapter: for phenomenology appearances always appear-as. What phenomenology does not do is ask itself why it is possible for things to appear in the human mind; it assigns all qualities that allow things to be appearances to purely human qualities, namely human consciousness. Phenotechnology does not accept this. It states that for things to appear, they must share at least some of the qualities of appearing, imagery or consciousness. That is why we have termed them thing-appearances or, for short, figures. As we said in the context of *vaghezza* and *Nebelglanz*: things have to be visible before they are seen. Some of the quality of the image must be innate to figures—a quality we have termed radiance. Yet, since there are millions of images of things possible, radiance must be far larger and fuzzier than what constitutes an image. Radiance, then, enables images, but by and of itself radiance is nothing like an image. Similar to visibility, figures have to be thinkable before they are understood; the quality of thought too must be innate to figures. That the world is intelligible cannot be ascribed to the structure of our brains. Surely the world was intelligible, experienceable, and visible long before humans appeared on the planet, even before there were any eyes or brains. In phenotechnology all these “X-able” forms are quite literally considered to be en-abling, and by consequence X must be viewed as shared, exchanged, and circulated.

Why, then, call this a technology? If we would distribute consciousness equally over all things, animate and inanimate, which is what Bergson does in *Matter and Memory* when he states that all things are images, we would have to reinstate spirit as an all-encompassing agent, even when moving it from the realms of heaven to those of the earth. All things would have to swim around in the same light. Phenotechnology does not accept that either. It would deny the variety of shades

and tints of consciousness and average them out into a universal form of half-opaque, half-transparent whiteness. Figures do shine like Bergson's luminous images, but variably, intermittently, and unevenly. Figures are not pure matter anymore nor have they reached the status of image yet, and can therefore exist anywhere between those two poles without ever being one or the other. As they are underway to being images, some shine brightly like rainbows, while others barely emit any light at all. The point being that such variation can only be established by the intermediary of technology, since by definition technology means transformation. All figures are transformations, above all of thing (not-matter-anymore) and appearance (not-image-yet)—on that fundamental level humans do not even enter the equation. And that makes it a nonhuman technology. Despite its dependence on human effort, the history of technology is by no means of a human order. On the contrary, *qua history* human development is wholly dependent on the history of technology. To quote Donna Haraway again: we have never been human. *Technology has its own history*, which in the Hegelian, teleological sense means that it owns *its future*, one that involves soft and hard, movement and object, *arsis* and *thesis*. Its historical path is directly linked to the structure of the grace machine. Technology is not there to move matter to another state of matter, but to a state of appearing—it is tropic, or *phenotropic*.

Especially in *Earth and Reveries of Will*, Bachelard considers our relations with matter within the framework of a “dialectic of *hard* and *soft*, a dialectic which governs every image of terrestrial matter. Earth, unlike the three other elements, is first and foremost characterized by *resistance*.”<sup>11</sup> With this sentence at the start of the book he is just warming up; a few pages later he speaks of a “phenomenology of opposition,” where matter is “attacked” with tools considered as “weapons” handled in a “fighting spirit.”<sup>12</sup> Words like “battle,” “hostility,” “combat,” “violence” even, return on virtually every page. Though scholars have often classified Bachelard's version of dialectics as less confrontational than Hegel's, none of that is present here: our relationship with matter is one of a “will to power” that strives for “domination,” that is, pure and simple overpowering. In the world of phenomenology these are unusually harsh statements, though it must be said that they expose its underlying and unresolved dualisms. According to Bachelard, matter never comes close to Bergson's image-state, and does not even contain images: to be formed, matter requires to have images forced upon it by human imagination. And the fact that in Bachelard's book matter never comes up with its own ideas and images, never sharing any bits or fragments of consciousness, must be the reason why it contains no history. Compare this to the co-evolution of matter, tools, and humans that we encountered in Leroi-Gourhan's works where matter invents tools and tool-using hands change the structure of the brain.<sup>13</sup> Bachelard's conception of tools and work remains throughout the sheer administration of force, stripped of any flexibility, relaxation, or measure. To be sure, during work we apply force, during the hammering of copper, the kneading of bread or clay, during the firing

of ceramics or the casting of red hot iron, yet nothing in that activity is of a dialectic or oppositional nature.

Rather the reverse is the case. When kneading clay, we are not on the outside of it, we are on the inside. We inhabit the things we knead and hammer. How else would we be able to measure the amount of force? How else would we know when to stop? When relying solely on our eyes, we would always be too late. As we concluded earlier in the case of hammering: we have to become hammer-like to be able to hammer. And it is the same with kneading: we have to become clay-like to knead the clay, dough-like to knead the dough, since it is *their softness* that needs to work, not our strength. Through us and our tools these materials knead and form themselves; it is their consciousness, their self-movement that directs them toward the image. We are merely discovering a softness already present, be it via our hands or via tools, be it in dough or steel, be it while molding car parts or cutting human tissue during complicated surgery. We treat steel as gently as we do flesh. We do extend ourselves, that is, in any specific relationship with matter we do extend the Self, yet this can only occur insofar as we are able to incorporate the Other. The prosthetic nature of tools and work operates via the mimetic route laid out by the material. What happens here is far more convoluted than our hardness opposing the hardness of matter. In the processes of technology, it is matter that has to produce the image, not us, and for that to happen matter has to mobilize its softness, its capacity for figuration. The matter-image or *physis*-mimesis relationship is not one of dialectical opposition but of contrapuntal grace. Matter enables us, and via the tool we enable matter.

Still, Bachelard was on the right track when following Leroi-Gourhan's distinction between hard and soft from *L'Homme et la matière*<sup>14</sup> to understand the relationship between image and matter, and though treating it as a matter of dialectics, this distinction does raise the issue of history, even if we will view it as a history of empowerings, not of alternated overpowerings. Thing-appearances knead each other, and that means history, not dialectics, but certainly not the ramblings of causality, chance, and contingency either. In our case, it means architectural history. If the proposed model of the previous chapter, the model of the Paleolithic cave, has any value, then it should be able to show itself in what Hegel called "shapes of consciousness" (*Bewusstseinsformen*), i.e., the forms that consciousness takes on in different types of matter-image transformations.<sup>15</sup> Maybe we should call them "styles of consciousness." On the whole, I believe history is the history of mimesis, as Auerbach suggested, but as this history is material and technological, it implies a history of *physis* too. What enters via mimesis comes out as *physis*. And vice versa. It is a history of transitions and transformations, a history not simply of material technologies, but a *phenotechnical history* of carving, casting, firing, pouring, modeling, injecting, and dozens of other soft-to-hard techniques. By definition this mobilizing of softness results in a history of figuration since architecture in its quest for the image remains a style of consciousness, not consciousness itself.

## The Spirit and the Lithic

Figurate architecture, then, is an architecture that develops and uses material transformations in the conceptual framework of figuration. This is how we defined it coming out of the Paleolithic caves. As became clear in the study of the caves, the material soft-to-hard transition cannot guide architecture all the way to transfiguration. It required other techniques of figuration to reach the final stage, realized in the caves by means of painting, yet under different conditions it could also be achieved by wallpaper, tapestries, furnishing, glass, pottery, anything in any combination that extends and furthers the thing-appearance transformation. The sequence of prefiguration, figuration, and transfiguration can be distributed over different materials and techniques. Each material allows for a specific set of transitions, mobilized by a specific set of techniques and accompanied by a specific type of figuration. These combinations we call styles. Styles are not structuralist or linguistic entities; they are soft-hard or *physis*-mimesis transition typologies falling under the general phenotechnical category of the thing-appearance transition. In short, all architectures figurate, but they do so in very different ways. That means styles do not follow one another. History does not make styles line up chronologically in a specific order so as to evolve in a specific direction. Yet it is not directionless either; the technologies effectuating the soft-hard transition come in different forms and these forms heavily influence stylistic changes, but these style forms in their turn influence the technologies. Therefore, we can never follow a singularly technological route or a purely stylistic one. One empowers the other, one transforms the other, but still they can be called trajectories or paths created by oscillating between matter-technology and appearance-image. Techniques based on one material can produce images that later affect the techniques of other materials; a back-and-forth trajectory, though not dialectic in the sense that they are oppositional, more like the two terms or poles of figuration.

There are several consequences to the concept of a phenotechnical history of architecture. I think it is fair to say that generally speaking architectural history has the problem of dealing with specific styles as explained by architecture's *interiority*, its own specific rules and autonomous themes, while the history of those styles is explained by *external* conditions, be they sociopolitical, economic, or technological. According to traditional architectural history, the rules that drive architecture within the entity of a style are incapable of steering architecture from one style to the other. As if substance and accident are simply alternating. That won't do, of course. And the first reason why historiography falls short is its incapacity to conceptualize technology; the second reason is that when historians decide to conceptualize technology, it invariably results in some form of materialism, as if architecture's interiority is suddenly based on engineering. As a consequence, we end up either with linguistic-semiotic or techno-materialist histories. In architecture, as in other disciplines, we are in deep need of an inclusive, bridging theory, of which one example

would be Donna Haraway's "material semiotics,"<sup>16</sup> though I prefer phenotechnology. A phenotechnical history has a past and a future, it follows a path, has direction, a Hegelian *telos*, but history as a whole does not. Phenotechnical histories transcend periodic style entities; at the same time, neither do they dissolve in a single progressive history that connects all style occurrences. The history of style, then, is non-chronological, *anachronic history*; the forms of consciousness connect up all right, but not according to the sequence of time. We can detect and follow many different teleological lines of specific matter-image involvements, trajectories are histories in the sense that they explain what occurs within the styles as much as between them.

And where there is *telos* there is spirit. Not a spirit guiding us all the way from the beginning to the end, delivering us at the endstation of Hegel's Absolute Knowledge, nor the short-term spirits of *Zeitgeist* that remain stuck in temporality. Yet a spirit jumping across time with huge effects on thought, mood, and psychology. Of all the arts architecture is the technology of mood, more subtle than music and simultaneously more powerful. Mood is the shift from what we called the gap, or room, where nothing has control over anything, to the moment when appearances appear. It is the vapor on the walls of the cave. In between the gap and appearances we find pure mood, because it shows that the images are coming from nowhere, and are only there to occupy your mind. What we called lithic psychology in the previous chapter, i.e., what the stone undergoes in its interactions with water, its accumulative transformations and metamorphoses, is what we undergo when we meet it. We feel it too, and we are bound to feel it or else we can never finish the self-movement of the stone by the self-movement of the animal paintings. Something crucial occurs here, something we can hardly put our finger on. When using the word self-movement in the context of the cave paintings, our post-Renaissance, neoplatonic minds can only accept that as an illusion: the painted animals do not really move, they are representations of movement, and good luck with that. But when using the word self-movement in the context of Hegel, who uses the term throughout *The Phenomenology of Spirit*, it means consciousness of a purpose, directionality: matter becoming aware, matter rising up from itself. The confusion between the two notions of self-movement is no accident of language: matter can only rise from its own grave by becoming an image. Neither the moving away from matter, nor the arrival at the image can be fully completed since the figure keeps the door open to both sides. Making statements such as "mimesis is original," "those paintings are real," or "stone coming to life," as we did over the course of the previous chapter, inevitably implies the reverse as well: *life returning to stone*. That is where the doubling lies: not between the depiction of an animal and a real animal, keeping the doorway between reality and illusion safely closed, but the doubling as a confusion, or better, fusion, of the two. The doubling is the constant flickering between stillness and movement, between stone and life, between, well, *death and life*.

Let me interrupt myself a bit longer and finish this train of thought by connecting it to the introductory remarks on the figurative and the figural. We

should keep in mind that both Auerbach and Deleuze would each claim an exclusive right to realism. Auerbach-realism is that of doubling, of mimesis, while Deleuze-realism is that of *physis*, what Francis Bacon calls “brute fact,” i.e., the painting itself as a fact instead of its representation.<sup>17</sup> Deleuze would say to Auerbach that mimetic doubling is exactly the proof of realist art not being able to deal with reality, since by trying to get a grip on the image it loses its grip on reality. Auerbach would retort by saying that Deleuze’s spastic monsters might be singular creatures, yet pay the price of being wiped out, since by trying to get a grip on reality this form of realist art loses its grip on the image. And, yes, Deleuze’s realism is as contradictory as Auerbach’s: in trying to make an image of the non-image the brute fact exposes itself as fiction.

The figurate does not simply take a position between the two sides of the argument; that would lead to paradox or ambiguity, in the mere hope that the question is solved outside the range of language. Of course, in a “material semiotics” that can never suffice. The argument of the figurate is that the *figure is neither*, neither material nor semiotic nor both. The material of the cave has transformed so much that it is not stone anymore and has taken on the image of an animal but without reference. It acknowledges the Other by absorbing it into the Self: it is mimesis all right, but a non-reflective, *absorptive mimesis*. Self-consciousness and self-movement as a form of “self-othering”—truly a form of ontological gymnastics. It processes the image as a material and gives up the material as an image. Very much a case of swallowing and digestion. By making the doubling a form of contrapuntal exchange, the gift cycle saves us from limbo, from the double-noun state where the figure never moves an inch between the poles of *physis* and mimesis.

In the caves it all started with the stone being moved away from itself by the water. It is extraordinary; unnatural to the point of being artificial. The ultra-high-tech of the cave’s stone-water entanglement softens the limestone until it starts mimicking parts of animals, almost as if the architecture stretches out with a mimetic device or some kind of mimetic antenna or fingertip, intrusive and curious like a water spirit or nymph, allowing the figures and shamanic visions to sprout via paint, dance, percussion, and song. The whole trajectory of stone to dance, so to speak, is a continuation of figuration, or a sequence of figurations where in Auerbach’s sense each stage promises the next, which is why we have called architecture’s stone-water phase one of prefiguration, expressly borrowing the term from Auerbach.<sup>18</sup> With the difference that we use smaller spirits compared with Auerbach’s, as small as Deleuze’s, except they are not earthly but water spirits. Prefiguration, then, is that stage where matter is being taken away from itself, yet suspended on the verge of becoming painting. The stages of figuration and transfiguration are its fulfillments, turning the not-stone-anymore into appearances, releasing the animals, man-animals, and spirits. Which means invading our brains, since spirits have no other place to go. Maybe that is the point where they turn into ghosts. Their Hegelian self-movement, their purpose is not to look like specific

animals outside the cave, but to be interiorized—the main reason why we tend to think they originate in our own minds. When believing they are illusions, they might as well be hallucinations. Lithic psychology tells us things are different, part of exchanges and cycles: stone moving away from materiality, images moving away from human consciousness. The cave is the primordial model of this sequence of transformations.

This “mimetic tip” of architecture’s spirit is its softest point, and every material technique has its own limit of how far it can go in its striving for mimesis, being limited by the structure of *physis*. Every material reaches as deeply as it can, via its soft technologies, into the depths of the triple figuration sequence. Though the cave model relies on a highly developed technology of water interaction, it cannot reach beyond the first stage; as said before, figuration and transfiguration have to be taken care of by other means. Crucial in this equation is the fact that it concerns *limestone* providing the softness of the cave’s stone. Limestone, we should note, is created by eons of depositing the tiniest animal skeletons on the bottom of the ocean. Skeletons of crinoids or sea lilies. Limestone consists of billions and billions of dead sea lilies: it dazzles the mind to realize that the formula of a few paragraphs ago—life returning to stone—is the driving force behind the mechanism of exchange. Indeed, “limestone is concreted ocean,” as Adrian Stokes put it so beautifully in *Stones of Rimini*.<sup>19</sup> In that sense, we cannot even say that the process starts with the stone being moved away from itself by water. Limestone is the product of water, its outer shape inside the cave as well as its inner structure hidden in the geological layers of the Permian.<sup>20</sup> Billions and billions of petrified images accumulated in the limestone, fossils lying in their stone bed for hundreds of millions of years. The limestone does not release its images literally, only as the capacity for transformation and figuration, returning in the form of different animals, that is, land animals, mammals. The return is driven by the Aristotelian route from mineral to animal, surely, though with the knowledge the path was first established by transforming from animal to mineral, the system takes on the familiar shape of cyclical exchange.

Our question should now be: if the cave is the model for the phenotechnical conception of architecture, is it also the model for its material transformations and how these lead through the transitions of prefiguration, figuration, and transfiguration? We can answer that immediately: yes, all figurate architecture is based on material soft-to-hard transformation, and, yes, they are all involved in the figuration sequence, but the “mimetic tip” of each material arrives at different levels of that sequence. Classifying the architecture of Paleolithic caves as Gothic, as we did in the last chapter, was no coincidence since they share very particular qualities. Both consist of limestone, both are based on the architectural concept of the nave, both consist of limbs. And both go through the three stages of figuration, though they do this in very different ways. Since the cave is built by the interaction with water, first to shape the *structure* of the limestone, then to shape the *form* of the

stone, it never followed the traditional building stages of quarry, plan, and elevation. The three building phases are completely intermingled during the process of cave formation. In Heideggerian terms: while the water is cracking open the stone (*Riss*), liberating the stone while it remains in the darkness of the cave, the water simultaneously grinds and washes out the plan, the *Grundriss*, and in the process it moves vertically by creating the traces, bulgings, and profiles of the wall, the *Aufriss*. The quarry, plan, and elevation are not altogether absent, yet the order in which they appear is completely different than in a project built with human technology. While the stone-water is quarrying it is building too, and while it is building it is also sculpting, and while sculpting almost painting. Almost, that is, since the intermingling of the phases does not allow a fully mimetic transformation. With the processes of *physis* constantly present during the process, the course of mimesis cannot be fully deployed. Of course, this is only an issue from the viewpoint of architecture, even of architectural criticism; the moment we incorporate painting, dance, and percussion into the equation, the cave becomes the ideal model, i.e., ideal in the Platonic sense.

Obviously, since the Medieval Gothic depends on human technologies, it has to follow the three phases of quarry, plan, and elevation in that specific order as separate building phases. The limestone quarry is not unlike the cave, except that the stone is laid bare in full daylight: it is the earth cracked open (“quarry” translates in German as *Steinbruch*, “stone crack”), a *Riss*, what we have termed rupture. Building does not start with a plan, it starts with a yawning gap, in an act generally known as “breaking ground.” What arises from that gap occurs in the stages of prefiguration, figuration, and transfiguration that are strongly related to the building phases though as transitions, not by running exactly parallel. The prefiguration stage coincides with the transition of the quarry to the plan (*Riss* to *Grundriss*); figuration with the transition of the plan to the elevation (*Grundriss* to *Aufriss*), that is, with the elevation as an upward movement; the transfiguration level is that of appearance, the sideways movement of the elevation (*Aufriss* to *Umriss*). Cave architecture proceeds through the stages of figuration by transforming from a mineral state to an animal state. Architecture, as human technology, has often inserted the vegetable in this process, not always in between, and not always in the same form, again because figuration and soft-to-hard technologies are interdependent. There are fundamentally phenotechnical reasons for the presence of the vegetable in architecture, which we will have to discover and discuss as we go along. The study of the Medieval Gothic will explain many, not all, of those reasons. Going from prefiguration to figuration to transfiguration, the Gothic combines the mineral, vegetable, and animal in a very particular way. Similar to the cave model, we encounter on each figuration level a specific transition, and as with the cave stone is involved on each level, behaving more and more mimetically while it moves to the third stage, though never fully reaching the state of an image. Building is *Bildung*, a move toward the image, not the image (*Bild*) itself.

We can now specify the three stages of the Medieval Gothic analogously to those of the “Cave Gothic” in their own specific manner. The first level of prefiguration is that of (a) the *mineral-animal transformation*, characterized by crystalline roughness with its many shifts and splittings in the specific order of an animal body by laying out limb-like structures. The second level of figuration we can identify as (b) the *mineral-vegetable transformation*, where the limbs of the first level have become smoother and bendable, stalk-like and capable of forming complex leaf-like tracteries. And finally, the third level of transfiguration is that of (c) the *mineral-floral transformation*, where we find the configurations become ever more flower-like, such as the rose window, extended into a world of color and light, slowly shifting to sculpture and painting. Let us follow these three levels of Gothic figuration step by step and examine their intricacies and internal connections.

If we put the plans (“horizontal sections”) of the Paleolithic caves next to those of a few cathedrals, preferably in the middle stage of French and English Gothic development, we hardly have to mention the fact that they are different, having been produced by different technologies. The similarities, however, are remarkable. Both show a specific type of incremental downscaling of elements: every time something happens, something else happens within it, and again, and again. It is as if we are looking at a serrated knife or a mountain range, that is, we see as much continuity between elements as discrete elements protruding. It is a form of ruggedness or better, of *ruggedness in ruggedness*. First of all, as the first part of the term “mineral-animal transformation” suggests, this ruggedness is of a crystalline nature: it operates by way of straight, linear shifts and cuts. The cleaving techniques of the quarry proceed all the way to the geometry of the first phase. We only have to glance over the plans of the cathedrals and we observe that the breaking occurs in a specific order: from large linear volumes to ever smaller ones. It involves a process of limb formation,<sup>21</sup> every time an element is broken it is broken into multiple smaller elements: the nave into transepts, the transepts into buttresses, the buttresses into pinnacles. The elements remain linear and limb-like while becoming ever thinner, in order to prepare for the next stage. The process alternates between torso-like continuities of multiplication interrupted by limb-like breakages and discontinuities. A rhythm of smoothness and roughness, what Ruskin called changefulness and savageness.<sup>22</sup>

Seen from this viewpoint, the Gothic does not vary fundamentally from other architectures. Indeed, like any bodily form, all architectural form can be defined by a specific “torso-limb index,” where the torso-part regulates the continuity of the massing, while the limb-part regulates the extensions, which could be “wings,” as we find them in a variety of styles in landscape- and garden-oriented architecture, or the spires and transepts of the Gothic, or smaller elements such as turrets, bay windows, chimneys, porticos and stairs, or various types of gables and roofs. In the Gothic, more specifically, we see that the rhythmicity of the alternating torso features and limb features occurs while they are decreasing in scale. We will never

find an expression of full-blown torsism such as the chests of classical architecture with its cornices and corners; on the contrary, every time there seems to be an opportunity for the volume to close up smoothly, it interrupts itself again to form limbs. Its rhythmic sequence or code would start with the nave splitting off sideways into double, sometimes quadruple transepts, and upward into double spires, followed by limb-buttresses and ending with pinnacles. As the comparison to a mountain range suggests, the form is defined by a fractalized principle: more and ever smaller extremities are splitting off. In short, while its geometry in this phase is defined by the crystalline geometry of minerals, its architectural form tends toward that of the animal body. Torso and limbs alternate, one to connect things smoothly, the other constantly breaking off in both the horizontal and the vertical direction. Looking at the vertical profile of a Gothic cathedral, it is clearly visible that the elevation does not simply shoot upwards as is usually stated; every step upward is followed by a collapse, creating a shape similar to that of a serrated knife or a stock market graph. Its morphological rules generate a typically jagged profile, a volume that cannot be described by a single, uninterrupted outline. Now, while this first stage of prefiguration largely defines the form and volume of the building, it is not nearly enough to explain its architecture. As said, there are very specific reasons for that.

Most striking is the fact that though prefiguration is based on the body plan of animals (where I include the body of Christ with the arms spread sideways and the legs held side by side), the body with its multiple limbs *does not move*. This seems an utterly superfluous, irrelevant, if not ridiculous remark in the context of buildings—nonetheless, it is essential. The distribution of limbs of an actual animal's body—be it the wings of a bird, the fins of a fish, or the legs of a spider—is fundamentally defined by rough and sudden changes in form. In aesthetic terms: the body is moving away from beauty. However, this formal roughness is corrected on the nonformal level by the smoothness of animal motion and postural grace. The coordinated flexing of the joints; the harmonization of the moving parts in purposeful action; the intensity, gentleness, or ferocity of movement; in short, the “movable beauty” of which Schiller speaks, is not readily available to buildings, certainly not in the way it is in sculpture where the distinction between structure and form is less prominent. Here lies the difference between the limb architecture of the Gothic and that of cave architecture, which does have direct access to the level of sculpture. In the cave the formation of limbs *coincides with their flexing*: when the passages, halls, and naves split off, they do so while moving like tentacles, blurring the exact location of joints, as if it concerns the ultrasoft body of an octopus. The form of the limb and its movement coincide, since the cracking open of the rock occurs simultaneously with the washing out of the limestone by the flowing water. In the case of the Medieval Gothic, the movement does not coincide with the limb formation of the first phase, but takes place during the second phase, the stage of figuration.

Exactly at this point Gothic architecture shifts from the category of the animal to that of the vegetable. Vegetal figuration opens up the route toward movement in the way contrapposto did for sculpture: not by making a thing move, but by having movement make a thing, and make it stand. The vegetal route loops the possible movement of limbs back to the stillness of the animal body. If the architecture would remain on the animal path it would be inexplicable why it takes on the shape of an animal body without being able to move about. Why would architecture ever identify itself with a dead animal? Vegetal figuration solves that problem. Whereas in the cave figuration can be fulfilled by painting, in the Gothic the architecture itself needs to transform. In Hegelian terms, the self-movement initiated in the prefiguration phase cannot be accomplished by the same means—in stark contrast to cave architecture, which is so brilliantly shaped by water, where shapes are anything but crystalline though wholly based on processes of crystallization. Cave architecture is wholly animalist: while it lays out the limbs it finds the animals' movement, and while it records the motion it finds their image. The Gothic follows the cave model, but necessarily divides the material transitions between hard and soft differently over the figuration phases. The Cave Gothic is animalist and the Medieval Gothic vegetalist for no other reason than that the Paleolithic waters have shaped both the stone and the form of the cave, whereas in medieval, lithic times the waters have shaped the stone, *but not the architecture*, an act that has to be fulfilled by the technology of carving, which needs to introduce movement precisely at the moment of elevation, and thereby necessarily doing so in the form of vegetal figuration.

Almost all pre-modern architecture is rerouted via the vegetal path; in itself there is nothing specifically Gothic in that. The intimate, millennia-long relationship with botany is one of the great mysteries of architecture, and should be viewed in the back-and-forth switching between internal member-parts and external member-limbs of a nonmoving body. It is the problem that Vitruvius, who made continuous use of the term *membrum*, never fully recognized, and fundamentally the reason why his proportional model of architecture, the Vitruvian Man, fails to explain the commensurability of the limbs in the required context of “posture and motion,” to put it in terms of Burke's definition of grace. There is simply no way we can understand the proportions of members without their movement, or the way they move without their commensurability. On the one hand, Vitruvius showed great interest in grace—his central term *venustas* means exactly that, and not beauty—but, on the other hand, the Vitruvian Man is utterly and completely dead, tellingly described by the Roman theoretician as lying on its back, even though Leonardo drew it as a standing figure, yet on this occasion not in contrapposto. In order to guide the external movement back to its internal parts and turn stance into activity, architects are therefore bound to design *buildings as animal bodies in vegetal form*. The fact that we have completely lost sight of this problem over the last hundred years either indicates a massive,

collective form of architectural dementia, or some kind of radical resetting of technologies. It is no secret that I am opting for the latter conclusion. If that is true, those new technologies need to be rethought in the framework of the interfiguration between the mineral, vegetable, and animal. We will get to that later in the chapter.

What sets the Gothic apart from other architectures is that its switching from the mineral-crystalline mode to the mineral-vegetable mode occurs over a much broader range, with reverberations in both directions. I discussed this assertion extensively in the first chapter of *The Sympathy of Things*, “The Digital Nature of Gothic,” where I introduced the notions of figuration and configuration.<sup>23</sup> The central claim is that the Gothic does not admit to the traditional separation of structure and ornament as work and by-work, or *ergon* and *parergon*. Most architectures make use of the vegetable only at the final stage in the route from massing to structure to ornament, leaving the first two in a wholly crystalline state. The Gothic introduces movement much earlier, at the structural stage: it not only makes use of leaves and petals, but brings in stalks and stems to cross over from bendable to rigid. Obviously, the bendable occurs at the figural level, not at the literal, a shift from soft to hard that is wholly facilitated by carving technologies and limestone. The flexing that routinely occurs at the level of ornament (scrolls, volutes, meanders, acanthus leaves, etc.) happens here at that of structure: bundles of stalks unraveling and bending, then again interweaving and webbing into large vaults with intricate patterns. The way the Gothic makes use of plant behavior enables it to position its architecture in a loop between movement and object, and approaches therefore classical sculpture’s explorations of contrapposto and posture, yet on a far larger and communal scale. Posture means a body being still by moving its members; it lies at the heart of the contrapuntal notion of the figure. In the Gothic the complete transition area of the middle stage of figuration is governed by the mineral-vegetable transformation.

We encounter its full power in the window traceries, where in contrast to the bundled columns and webbed vaults, we see the switching back and forth between structural and ornamental occurring in the form of stalks as well as leaves. Generally, we can analyze the columns, fans, and vaults of the naves and aisles with the basic figures of the J-figure, a shaft and an arc; the C-figure, an arc; and the S-figure, two inversely connected arcs. The three basic figures are all variable in their shapes, for instance, the J-figure can lengthen via the shaft and deepen via the arc, the C-figure can open less or more, and the S-figure can be deep or shallow, even symmetrical or asymmetrical.<sup>24</sup> This variation is fundamental for the next level of figuration, and in most Gothic examples there are at least five levels in the figuration phase alone, which we are unable to discuss here in full detail. In the whole body of architecture history it is impossible to find a more sophisticated notion of figuration. We should not forget that the word “tracery” shows its close kinship with the figure, as it is derived from the French *trait*, the word we discussed in the context of Eugen Petersen’s *Zug*.<sup>25</sup> To establish the exact geometry of their

buildings, the Gothic architects from medieval France made use of a special form of stereotomy, *l'art du trait*, where the line was not merely the result of intersecting volumes by means of projection, but the actual generator of volumetric geometry.<sup>26</sup> The line had its own shape, being embodied by the rib, which we encounter on all levels of design: in the bundled columns, the transitions fanning outward to the vaults, in the webbed vaults themselves, and the window traceries, which are highly complex despite their two-dimensionality. In window tracery, and especially in the highly intricate weaving and interlacing of rose windows, we see figures pairing up, then making small groups and again complex mini-configurations. These in-between stages of figuration behave again as entities by repeating, mirroring, or rotating. For the non-expert, the most recognizable pairs are the ogive and the ogee; the ogive consisting of a mirrored J-figure and the ogee a mirrored S-figure, while in the category of small groups the trefoil and the quatrefoil are the best known, respectively made up of three and four C-figures. The number of variations of the trefoil are smaller than that of the quatrefoil. In addition to being made up of three C-figures, the trefoil can also be constructed by three ogives or ogees. In the case of the quatrefoil, we can replace one of the C-figures with an ogive or ogee, or keep two C-figures opposite and replace the other two with opposing ogees; this can be repeated until all the C-figures are replaced by four ogees.

Yet, with such combinatorial descriptions we barely get to the heart of the matter, which is that figures interact with one another and not with any possible background as is the common view of the figure. This we can observe especially well in the case of the middle-scale figures that go by French names such as *mouchette* or *soufflet*. The majority of the figures on this scale level have not even been identified by architectural historians. At the base level, the figure consists of a single line, generally materialized in the form of the rib, but at the moment several ribs start to configure and form a closed contour, they in their turn start to act as figures, figures we would usually define as background. Although these middle-scale figures are enclosed bodies and not single lines anymore, they are never allowed to become torsos, they will always break into new figures acting as limbs, mostly by means of what is called the thorn-like cusp, probably the core figure of the Gothic. In the process of the continuous interrelating of figures, new figures are constructed in such a way that the background disappears. Interacting figures never leave undefined space in between, nothing can be left unfigured. A simple figure-to-configuration schema would rely too much on an additive hierarchy, obscuring the fact that all figures ranging from single to complex configurations can exist at all scale levels in nested conditions. The intermingling of various scales of figures and the mixing of line-figures and contour-figures makes it impossible to say if we are looking at a network of lines or a mosaic of patches. In terms of language and logography, one could say that in the Gothic there is never a clear distinction between letters, syllables, words, and sentences; words can break up into mini-sentences, and parts of sentences start

functioning as words. Evidently, explaining the powers of Gothic figuration would require a separate book filled with thousands of diagrams. It must be said though, that figuration is completely overlooked by architectural historians; without exception they apply analyses derived from classicist iconography, based on an elementarist methodology that by definition hampers any understanding of variation, both on the level of smoothness and of roughness. It is a miraculous and highly technical art that exceeds by far the standard nomenclature, and only a comprehensive “Grammar of Gothic” would be able to show all intricacies and stages of variation, an exegesis that would surely exceed the established notions of grammar and syntax.

For our present purposes, the exact ins and outs of its figurate behavior are less critical than the question how the vegetal mediates between the mineral and animal. It has troubled many philosophers that plants are alive as well as immobile, since the principles of life are based on consciousness and those of consciousness on self-movement. Hegel, for instance, denies plants a Self because of their “linear growth,” what he famously called “bad infinity,” the inadequacy of plants to close themselves off from other selves.<sup>27</sup> For Hegel, plants are too “selfless”: “The plant . . . does not attain to a *being-for-self* but merely touches the boundary-line of individuality.”<sup>28</sup> He is pushing his anti-Romanticism a bit too far here: when plants are selfless, it does not mean they have no Self, on the contrary, one has to have a Self to be selfless. Generosity is not an act of giving oneself away. Certainly, plants are examples of linearity, but that does not mean they are line segments, cut off at the bottom and the top. Plants are as much networks themselves as the networks they build between each other. In that sense, plants absolutely move, they move locally as Darwin already proved in the *Power of Movement in Plants*, as well as growing flourishing relations between each other and other selves. The generally assumed literalism of locomotion is based on very slippery thinking, at least as slippery as the literalism of pure standstill. A sharp division between the two leads immediately to infinite regress, where a nonmoving entity needs to be postulated to move its body, and again, and again. Spatial displacement is not the sole proof of movement’s presence. Our discussion of the postural figure in the first chapter showed that before a body sets itself in motion, movement *already* has to be present during standstill, otherwise the transition would be impossible. Literal movement relies on *non-literal movement*, that is the crux of readiness and the reason it is based in figuration. Michael Marder, who discusses Hegel’s critique of linearity in his book *Plant-Thinking*, demonstrates clearly how the plant’s selfless generosity drives its propensity for networking and flourishing:

Plant-soul is a concrete expression of such division of and at the origin—the kind of primordial generosity that gives itself to all other creatures, animates them with this gift, parts against itself, and in this parting and falling apart invites the participation of beings in the act of living.<sup>29</sup>

The movement of plants is a movement *in* the plant and *between* them, not *of* the plant, and is based on a non-literal, figurate movement, one of figures turning into still configurations. The nature of Gothic, then, is a vegetal nature.

In the Aristotelian order of things, vegetal life fits neatly between mineral immobility and animal self-movement. That is not what is occurring in the Gothic. In the shifts from massing to structure and structure to ornament, the Gothic does not follow the mineral-vegetable-animal route; the positions are shuffled. The mineral and animal are connected first by creating an animal body, almost fully consisting of limbs, limbs that withhold their movement to release it on the vegetal level, enabling the plant to interlace and build connections. The non-movement of the building's animal body coincides with the figural movement of the plant. In the Gothic, plants behave as animals and animals as plants. This must be the reason why in medieval times so many books appeared with illustrations of plants growing animals as flowers; of intricate knotworks ending in human heads; of humans striking root and growing leaves; of trees transforming into animals; or of three hares chasing each other while linked up by the ears in a trefoil.

The Lithuanian art historian Jurgis Baltrušaitis published several extraordinary books on the topic.<sup>30</sup> In page after page he shows and discusses images of how the vegetable turns into the human, the human into the animal, the animal into the vegetable, all via the technical acts of figuration and configuration. And the word "technical" means "phenotechnical," structures turning into appearances. Such constructs go beyond the mere exploration of the fantastic, a notion that would misplace their phenotechnology in the category of imagery and imagination. It concerns a fundamental equalizing of movement and stillness. Why? Because when the one can change into the other, they must exist without hierarchy, that is, without the Aristotelian hierarchy of souls and the Hegelian hierarchy of Spirit. Change is exchange. The moment an opening has been created between the dead-stillness of minerals and the self-movement of animals, the passage becomes operative in both directions. The notion of "stone coming to life," which is fundamentally a vitalist paradigm, is to be mirrored by a reversed paradigm, a "mortalism." Mirroring means not choosing between one and the other, but a mutual absorption of one another in a constant mimetic oscillation. With the pair of them working in resonance, we would finally arrive at an understanding of the real powers of appearance, namely the *flickering* between death and life; again, not as an eternal suspense in limbo, but as continuous exchange.

Probably this is the right moment to start asking ourselves why the Medieval Gothic became so inextricably entangled with the Romantic Gothic. At first glance, a larger contrast scarcely seems possible. The Medieval Gothic is that of St. Thomas who theorized *claritas*, of Abbot Suger who built St. Denis and its stained-glass windows, or of Louis IX who built Sainte-Chapelle with the most beautiful rose window of all the Gothic. (Suddenly, we find ourselves surrounded by saints, who, I must say, are experts in the exchange of death and appearance, as most of them have

been martyred and carry a halo around their head.) In sharp contrast, we encounter in the Romantic Gothic a plethora of graveyards, werewolves, *Doppelgänger*, vampires, and hypnotism. If they would have told Abbot Suger that at the start of the third millennium people would associate the Gothic with occultism, black-leather dress code, body piercings, and ghost stories, he would probably not have survived it. Is this purely an accident of history? Surely not, though the underlying reasons stretch far beyond the iconology of ruins, full moons, and open graves.

The Gothic is not an architecture that in any way flirts with death or represents mortality in the manner of classic architectures of death with their vacant walls draped in heavy shadows and the obligatory monumentalism of the sublime.<sup>31</sup> It is not an architecture of the pure gap or the abyss, the uncanny or the eerie. The insurmountable problem of presenting us with the mere gap is that appearances again need to appeal to human consciousness and imagination. One would hardly be able to speak of exchange or sharing, let alone generosity. When pure absence haunts us, we fill it in with images. The Medieval Gothic goes much further than that; like the Cave Gothic it presents us with both the gap and the things that appear from the shaping of the gap; absence and presence simultaneously in a constant flickering relationship. The light of the Gothic is that of opalescence and iridescence, not that of white uninterrupted daylight—it flickers intermittently with variable frequencies. In short, the Romantic intuition of the Gothic should be considered at least partially as authentic, since it taps into a crucial aspect of its phenotechnology.

Surely the Gothic senses the presence of death, yet not as tucked away in the darkness of shadows. It is death itself that shines, the primary source of what Donna Haraway calls “Christian realism,”<sup>32</sup> which we encounter most strongly in the form of the *relic*, the venerated remains of the martyr or saint. The mere presence of a shriveled, mummified body part such as a severed toe or hand—limbs in any case, even *membra Christi*<sup>33</sup>—of a martyr is not enough to make the object shimmer and radiate: the relic vibrates in resonance with the absence of the rest of the body.<sup>34</sup> Without the sacrificial death of the saint the relic would be meaningless. Kept in reliquaries or monstrances, the body part is often made visible behind a little window surrounded by a golden halo or nimbus, a practice that originated in late antiquity and its obsession with the colored light of gemstones and gold. Whereas we observe a reduced use of gold leaf and mosaic compared to other architectures, the emphasis in the Gothic shifted to the use of stained glass, which, in a way, turns the whole cathedral into a reliquary. In this combination of building, color, and radiance, we immediately recognize the iconography of the rose window, where the limestone reaches its limit in an exuberance of figuration and configuration to transfigure into pure coloration. At this point it is impossible to say whether we are looking at petals or flames, that is, at flourishing or perishing. The rose window presents us with an image that, to truly understand the Gothic, should be superimposed with that of death: the relics

on the altar; the billions of dead sea creatures buried in the limestone; the innumerable tombstones spread out over the floor turned nameless by centuries of devout shuffling; the dead saint the building is devoted to; and of course in every possible corner the expiring body of Christ with its face covered in blood and the gaping wound at its side<sup>35</sup>—everywhere we look corporeal death is surrounded by that bright, multicolored halo.

It is clear: with these last paragraphs we have started to consider the principles of the Gothic's third and final stage of figuration, that of transfiguration or the *mineral-floral transformation*. Compared with the horizontal lotus flower of Hinduism, the Gothic offers us the vertical flower of the rose window. It fulfills the figurational route of Gothic plant life: moving from the roots absorbing the soil's dissolved minerals to the structural stems and stalks, upward to the distribution of leaves, to terminate in the colored flower. After all, "figurate" means "florid." Earlier, I nominated the flower as the plant's means of transport: its appearance is the way it penetrates the environment, by color and odor, and making those surroundings bend toward it. With a subtle difference: in the case of the Gothic cathedral it concerns an inward movement, not outward. The flower turns inward, looping the plant back onto itself. At the exterior the rose window is difficult, if not impossible to understand; because of its perfect roundness it barely harmonizes with the linear structure,<sup>36</sup> which goes against the nature of tracery. Looking from the inside, everything changes: the tracery turns black against the sunlight, the colors of the stained glass start to shine brilliantly, and the enclosed images slowly become visible. It is as if the plant proves Hegel wrong by contemplating its own flower. It is true that the Gothic world is filled with light, as is commonly proclaimed, though not the light of reason and transparency. Its luminosity is that of thick light, a form of light that, as Umberto Eco notes, "freely diffuses itself and is the source of motion. It penetrates the bowels of the earth, forming its minerals and seed of its life, for it possesses the energy of celestial bodies."<sup>37</sup>

Now that the Gothic has demonstrated the pivotal role of death, radiance and luminosity can be regarded as being deeply entangled with *spectrality*, a term to be understood in a sense of shining, combining the color spectrum and the dead's presence. Spectrality establishes the meaning of radiance as a looping, double movement from stance to appearance and back from movement to stillness, i.e., death. It is the ultimate consequence of weakness' crucial role in the turn between stance and shining. The mineral-floral transformation works in both directions, from limestone to color and from color to limestone. In contrast to Derrida's concept of the spectral, death becomes part of presence and visibility, a form of hypervisibility, a seeing beyond seeing, in fact, what saints call "vision."<sup>38</sup> (We can't really "see" radiance; the closest we get to an experience of beauty is a cascading of images, a sort of blurring effect, as if leaking from the figure's blur.) In his *Specters of Marx*, Derrida opts for the spectral as "non-presence," a strategy of the sublime that seeks to deconstruct phenomenological presence, yet the French philosopher

completely overlooks the fact that in doing so he grants the same central position to human consciousness.<sup>39</sup> The only difference is that where phenomenologists see presence, he sees absence. Radiance, on the other hand, is a reversal of these two interchangeable positions, namely by putting the power of appearance in the hands of things, yet—since that relies on the gift structure—this power is obtained by sacrifice. As we saw so many times over the last chapters, their existence as thing-appearances, i.e., as figures, is wholly based in weakness, a positive weakness that fosters presence. Staring into absence, seeing-through appearances into the paradigmatic abyss of the sublime, is precisely not what the Gothic entails. Instead of linking the spectral to the uncanny, the Gothic links it to bliss, instead of darkness to iridescence, and instead of absence to flickering presence.<sup>40</sup> There is no darkness, just the quivering brokenness of light or, in a word, color.

An important difference emerges here between the spectral and the ghostly, since the category of the former contains the latter, yet not the reverse. The spectral fuses fact and fiction—the literal meaning of the term “figure,” as we recall from Auerbach’s definition—whereas the ghostly is fiction only. The spectral is the very structure of visibility; ghosts we merely imagine. Ghosts tell us we are going to die, specters that we are half-dead already. The ultimate form of solace: we are never fully dead and never fully alive, respectively a vitalist and a mortalist clause. Ruskin called this “the veil of strange, intermediate being.”<sup>41</sup> This fused world is one of thickness, unexpectedly merging with the medieval concept of *claritas*, meaning “resplendence” or “brilliance” and not to be confused with clarity. *Claritas* denotes the rule of color: “Things are beautiful when they are brightly colored,” wrote St. Thomas.<sup>42</sup> *Color is thick light*, light as fog and as obstacle. If we are looking for an alternative to human consciousness; this is it. Color as the very foundation and substance of the real. To fully grasp the beauty of rose windows, one should gaze at those from the late Gothic styles of the Rayonnant and the Flamboyant, meaning the *radiating* and the *flaming*. From opalescence and iridescence we have moved to incandescence. The rose seems to pulsate, sometimes to rotate, ejecting its saints over the interior in the starkest color schemes. While spinning, the traceried wheel leaves its mineral-vegetal skeleton behind to pass into a state of pure, configured color. Of course, the rose window is a halo. Nothing as uncompromising as the Gothic laws of color: no gradation, no subtle harmonies, just pure color supplied directly by the color wheel, a practice we recognize from color use in flags, sports, and heraldry where the brightening occurs because of the internal contrasts, not because of the quality of the colors themselves. They are the colors of *agōn*, of fierceness and competition. The rose window exhibits the kaleidoscopic, multicolored appearance of what the Greeks denoted with the word *kōsmos*, a word that signifies universe as well as adornment, as in cosmetics. In the Gothic world, the collapse of structure and ornament applies to everything.

When Hegel launched his final assault in *The Phenomenology of Spirit* on plant life, and implicitly on Romanticism and Hinduism—“The innocence of the *flower*

*religion*, which is merely the self-less idea of self, gives place to the earnestness of warring life, to the guilt of *animal religions*<sup>743</sup>—he probably did not realize that the central icon of his own religion was that of the rose that had nestled itself between the animal and the mineral.

## Automatism and the Ferric

The history of the Gothic—among which we can now count the Cave Gothic, Medieval Gothic, and the Romantic Gothic—proceeds with its recurrence, or better, with its fatal recurrence in the form of nineteenth-century revivalism. I am not using the word “fatal” because of its revivalism or because it took the shape of some unattainable dream. On the contrary, the fact that it shaped itself as a dream, Pugin’s and Ruskin’s dream mainly, is exactly what makes it so perfect. Revivalism always oscillates between death and a certain glorifying light, which fits with lithic psychology, the coming to light of fossils, of hidden imagery, the past breaking into the present by way of a rupture. It is historicism in its most transcendent form: as if nothing happened between now and then. The problem, and its inherent fatality, lies in its phenotechnical discord, in viewing the Medieval Gothic as a perfect image to be enacted by fast-forwarding six hundred years without embedding the image in its new technological context. Of course, both Pugin and Ruskin partially viewed the implementation of revivalist Gothic as a form of resistance against the increasing influence of iron on the shape of things; a dialectics bound to fail. A more elegant hypothesis would be that the new technologies of the nineteenth century indirectly caused the dream of revivalism, like the numerous other dreams it caused such as the historical novel or even the notion of dreaming itself. It would be no exaggeration to say that the nineteenth century was the century of dreams; never were more paintings made of sleeping men or women, and never were more books published on theories of dreaming. Nonetheless, such a hypothesis would still be dialectical, a form of resistance, yet a more genial version than the dialectics of stone and iron.

Phenotechnically revivalism failed to engage its version of the Gothic with the new technologies of iron and steel; it merely attached its lithic imagery onto the iron, such as the railway stations with their brick fronts and their glass and iron structures, covering the trains and platforms. It lacked a *ferric psychology*, i.e., iron’s ability to dream up images, not ours. We tend to think of iron as the ultimate material of hardness and strength, and at first sight the images of trains, steam engines, and bridges seem to support this, but let us not forget that these are images of iron when it has cooled off and left the mold. The true psychology of iron is that of a liquidity and softness with more mimetic powers than the limestone of the cave and the Gothic. Ferric psychology is the psychology of metamorphosis. No wonder that the study of dreams took such a flight during the nineteenth century. Iron is the stuff dreams are made of. The “mimetic tip” of iron reaches deep into the

processes of figuration, much deeper than what is possible with limestone. Fundamentally, we are discussing the technology of cast iron in this argument, since wrought iron is reworked over numerous times by going back and forth between softening and hardening, making it independent of a mold and therefore less mimetic. Though Hephaestus was capable of forging iron as if it were cast, making shapes take on the form of dogs, lions, or maidens, this was because, as Mircea Eliade said, “the furnaces are, as it were, a new matrix, an artificial uterus where the ore completes its gestation,”<sup>44</sup> offering a morphogenetic view of molding and modeling based on the etymological kinship of *mater* (mother), matrix (mold), and matter.<sup>45</sup> According to Eliade, there always existed “a close connection between the art of the smith, the occult sciences (shamanism, magic, healing, etc.) and the art of the song, dance, and poetry,” as if redirecting the very ingredients used in the Paleolithic caves toward different materials.<sup>46</sup> The shift from a lithic to a ferric psychology seems more than just a possibility if only the process would incorporate more of the soft stage of iron.

Cast iron was already in use long before the nineteenth century, though the relationship between the softness of the hot material and its mold was not fundamentally different from Baroque stucco, for instance, except for the fact that stucco requires a substructure—the reason why the Baroque is an art of the theater—whereas cast iron is capable of supporting considerable loads. When finally used in a structural capacity, the mold was still viewed as a dialectic anti-form, as a hardness functioning as the receptacle of softness, with little exchange between them. This all changes with Art Nouveau, where the notion of softness and malleability transforms *the conception of the mold* itself. After all, the mold needs to be cast as well, shifting the notion of maternal matrix and conception to a moment before the actual casting of the iron. Doing so, it shifted mimesis a few steps back in the process toward *physis*. When keeping in mind that the casting process advances from terracotta model to wax to iron cast, this means that the character of the wax starts to influence the shape of the mold that allows for a sculptural treatment of architectural elements. Not sculptural as a necessarily artistic or formal exploration, but as we have been employing the term throughout this book, as the figural combination of weakness and strength based on the expert knowledge of posture. In architecture, like in sculpture, whatever comes out of the mold, be it a railing, a lamppost, or a column, needs to be able to stand. While the mold plays an important role, it remains that of a go-between; the true conception is that of the wax gestating in the iron, or in our terms, the wax inhabiting the iron. In other words, a procedure based in the double meaning of conception: the standing is *conceptualized* by the wax while the iron *conceives* the wax in the mold.

The realism we have been touching upon must by definition be a *technological realism*, i.e., as much a question of *physis* as of mimesis. Or, as Walter Benjamin so fittingly observed:

Jugendstil [Art Nouveau] is the second attempt on the part of art to come to terms with technology. The first attempt was realism . . . Jugendstil no longer saw itself threatened by the competing technology.<sup>47</sup>

Benjamin's unfinished *Arcades Project* (in German: *Passagen-Werk*) is one of the few theoretical works engaging with Art Nouveau. The book clearly shows the two sides of Benjamin's relationship with Art Nouveau: while his head is in the twentieth century and its modernism, his heart lies with the nineteenth. He is fascinated by its architecture, the forms, the posters, the fetishism, the makeup, the glowing objects, the crowds implied by the structure of the city, and the labyrinthine character of the arcades which transverse and undermine the network of the Hausmannian boulevards of Paris. The arcades are public interiors, just as Art Nouveau is an art of the interior, the reason why the house is the largest object that Art Nouveau could devise. As Dolf Sternberger, an author who Benjamin quotes numerous times, wrote: "the most characteristic work of Jugendstil is the house."<sup>48</sup> Yet, despite the stark contrast to the Gothic and its revivalist successor, which were both capable of conceiving enormous buildings, Art Nouveau remains a Gothic project in every possible sense. The image of the cathedral permeated the whole of the French nineteenth century, from Victor Hugo—famously stating that "the book ends all this"<sup>49</sup>—all the way up to Rodin and Monet, an image that only starts to fade with Marcel Proust who began his intellectual life as a passionate Ruskinian, comparing his multivolume *In Search of Lost Time* to a cathedral.<sup>50</sup> Art Nouveau's Gothic nature is exhibited in many ways, the most important of which are the vegetative notion of figuration and, at the level of transfiguration, that same typical inversion of the flower turning inward. The house of Art Nouveau—in England called the "House Beautiful"<sup>51</sup>—is stuffed with flowers, literally and figuratively, and in every possible form of figuration. When Sternberger referred to the scene in Ovid's *Metamorphoses* where the dead body of Narcissus transfigures into a flower,<sup>52</sup> declaring it the core principle of Art Nouveau's project, he was being more accurate than any other author on the subject, before or after him.

Compared to the Medieval Gothic, we detect a marked difference in Art Nouveau's version, namely that the latter has more direct access to the vegetal level, as if the iron ore excavated from the mines instantly adapts to plant life because of its powers of metamorphosis and mimesis. Stone still plays a role in the transitions, but compared with what Art Nouveau wants to achieve only in a minor role. Indeed, the overwhelming presence of iron, glass, and ceramics proves that for Art Nouveau stone could not deliver the required level of figuration. The iron arrives at the construction level almost as liquid as the water in the caves, enabling the figuration process to start immediately, skipping the phase of prefiguration. Not that Art Nouveau denies the existence of the *Riss*, the rupture stays present, yet not in crystalline form. The Art Nouveau house remains closer to the model of the cave than its medieval and revivalist predecessors.

The figuration process consists in the case of Art Nouveau of two stages, not of three: a figuration phase and a transfiguration phase. The first phase, which guides the movement upwards from plan to elevation, and therefore by definition of a structural nature, concerns (a) the *ferric-vegetable transformation*, a phase we see occurring at the start of every object, be it a doorframe, the frame of a picture, a railing, a column, and even doorknobs, table legs, chairs, anything really. The second phase, moving sideways from elevation to appearance, we call (b) the *ceramic-floral transformation*, for lack of a better term, because the transition occurs on so many material levels. Whereas ceramics is the most important material at this stage, we encounter glass, wallpaper, paintings, wooden and metal objects transmuting into what we can only call spirits: peacocks, elves, dragonflies, butterflies, nymphs, and all types of flowers. We should not hesitate to use the term spirits, as we have done increasingly over the course of the last chapters. In this case, we could even speak of *tutelary spirits*: each thing presents itself attended by a guardian or intermediary; even the smallest objects arrive accompanied.

The figurations we encounter during the transformation of the iron into the vegetable are of a particular character we do not find in any other architecture, even when essentially Gothic in nature. Although based on the general motif of the tendril and the scroll, there are significant differences. The tendril figure is usually applied in the form of *Beiwerk* and *parergon*: the element is doing no structural work whatsoever and purely curls away as a sign of pleasure and leisure. In Art Nouveau, on the other hand, the tendril is an inseparable part of a longer element, an element that often starts out straight and even vertical. In art history, the figures are often referred to as whiplash-figures, a name that is chosen well, since the figure starts thick and strong while weakening and increasing its curvature along the way up. Yet, the figure is more complex than that. While the name “whiplash” indicates a single line following such a trajectory, we invariably encounter them as bundled, i.e., as a tight straight figure at the bottom that starts to unravel while slowly curving upwards, splitting up in multiple, increasingly curved, loose ends that constantly intersect with one another. It is no accident that Art Nouveau was obsessed with hair, especially long, women’s hair and wet hair. The posters of Alphonse Mucha, for instance, show extraordinarily complex forms of figuration: the strands of hair alternately merge into thick bundles to split up into thinner strands, fully unraveling to then start interlacing again. What looks at first like the very image of looseness and chance, exhibits complex structural behavior that exceeds the simplistic nuts-and-bolts elementarism of engineering.

The Gothic model is clearly present here: bundling at the bottom of the column, fanning out at the top to then interlace with other strands—the behavior of the figures is as much structural as it is ornamental. Gothic, yes, with the important difference in the number of figuration phases. The Gothic is based on a three-stage figuration process that includes prefiguration, and therefore acknowledges and incorporates the gap, that fundamental room between us and things which allows

those things to appear. That room appears to change with Art Nouveau. Certainly, it is not without a gap; that would be the house of pure comfort, where there is no difference between things and us, with things serving us so well—ergonomically—that we cannot distinguish anymore between the master of the house and the things that serve him or her. Nor is it a house of discomfort, of the uncanny, where in our confrontation with the abyssal gap we feel haunted and start fantasizing about seeing ghosts. How does Art Nouveau approach this? When walking around in an Art Nouveau house it is remarkable how much the house exudes an atmosphere of being submerged, with every figure bending and curling in slow motion, even yielding and stretching out toward one another.<sup>53</sup> Art Nouveau wholly acknowledges the necessity of the gap, it just *fills it with water*, figuratively speaking, by taking the notion of *Spielraum* as “spilling room” as literally as possible. The phase of rupture and groundbreaking coincides with the liquidity of the iron, and in its wake the liquidity of glass, clay, and paint. Instead of the whiplash or hair, a better image to identify Art Nouveau’s central figure might be that of a water plant: tied to the bottom, standing vertically, it starts swaying and curling while going upward and switching to a fully horizontal mode of swirling at the top. At no point can we say where the transition of *ergon* to *parergon* occurs, because there is none: ornament finds a depth here that pervades the whole aqueous space, turning space immediately into a mental state or mood. One could not wish for a better scenario of figuration’s thing-appearance switch. To draw a diagram of an Art Nouveau house, one would have to draw it as an aquarium filled with linear beings that are fixed at one end while free to move and explore at the other.

As noted above, we encounter a persistent obsession with sleep and dreams at the end of the nineteenth century: the room, now filled with water, turns into a *medium*, that is, a room where the relations between ourselves and between us and things are of the same nature and part of the same world. Everything is intermediate. Not a dreamworld in the sense that we are asleep and positioned horizontally, dreaming up our vertical walls as illusory fantasies of security. No, we are definitely vertical, we walk, talk, work, eat, drink, but as sleepwalkers, as if under hypnosis. Art Nouveau, the art of the somnambule.<sup>54</sup> Forms refuse to leave their molds, mirrors and matrices, as if floating in amniotic fluid. The ideological head of Surrealism, André Breton, went so far as to expand the notion of the medium:

It seemed to me worthwhile to bring together, in an issue of the journal containing several admirable specimens of Jugendstil art, a certain number of mediumistic designs . . . In fact, one is immediately struck by similarities between these two modes of expression. What is Jugendstil, I am tempted to ask, but an attempt to generalize and to adapt mediumistic design, paintings, and sculpture to dwellings and furniture? . . . It could be maintained that these two enterprises are actually conceived under the same sign, which might well be that of the octopus: “the octopus,” as Lautréamont has said, “with the silky gaze.”<sup>55</sup>

For us, the Sign of the Octopus could not be more relevant: a fully submerged body consisting of a head extended by limbs only, without any proper torso to speak of, as well as being a master of *métis* and shape-shifting. Nothing more cave-like than the octopus, nothing more *octopedal* than the cave. The notion of a medium means the lack of ground is all around you in the form of water, with the octopus swirling its tentacles like an uprooted plant. Breton's use of the word "mediumistic" indicates a form of automatic drawing, placing the origin of design in the hands of a spiritualist medium. His article "Le message automatique," published in a 1933 edition of the Surrealist journal *Minotaure*, illustrates the text with many forms of automatic drawings, some of them containing as much automatic writing as drawing.<sup>56</sup> Odd maybe, but the logical conclusion to the notion of a medium: not only do the objects and the inhabitants swim in the same sphere, but the architect drawing those objects must have been part of that sphere beforehand: "the experienced artist or draftsman knows that the tracing of a line or a curve often falls within the domain of involuntary automatic actions."<sup>57</sup>

Breton was unusually perceptive in his comparison of Art Nouveau's figuration to automatic drawing, yet he dwelt too heavily on the line's weakness, its tendency to explore all directions, scrolls intersecting with more scrolls, forms yielding to other forms like "spirits dressed in their fluid costumes."<sup>58</sup> For instance, when we look at Hector Guimard's cast iron forms such as the famous railings and lampposts for the Paris Métro, we observe a more complex and contrapuntal model of weakness than the straightforward crystallization of a liquid state into a rigid form. Breton overemphasized the contribution of the wax to the inner state of cast iron. Looking at Guimard's lines, we see a stretching out and self-elevation as well as directionless swirling. Indeed, we see them working together: the ironwork bends and flexes *while standing up*. It is not in a state of drunken *dérive*. The lines split and curve to find each other; behaving like the Gothic stalks and stems, the ribbing allows them to split off, pick up another element, or split off to incorporate the armature of a lamp. In fact, their weakening is a strategy of strength, a form of cunning: the waxiness of the iron coincides fully with its powers of framing and standing. Compare this to, say, Pollock's dripping techniques applied to his action paintings. There we first observe the liquid dripped and splashed over the horizontally positioned canvas, the arabesque lines intersecting by chance, to then, after it has dried, be turned into the vertical position of a painting hanging on the wall. Two dimensions conceptually kept apart. In Guimard's Gothic, they are interdependent: the weakening of the iron shapes the material via figuration into a state allowing it to stand. Art Nouveau's figuration enables the horizontal plan to *turn into* the vertical elevation, a tropic turning that uses softening to construct stance. It follows the contrapuntal paradigm of the figure, where the tropism equals a turning into structure, thus making the ornament its structure. It follows the mission of *parergonomics*: the work done by the by-work, the stresses absorbed by relaxation.

Something fundamentally different occurs here from simply making use of the reproductive qualities of industrial casting. During the course of the *Arcades Project*, Walter Benjamin turns against Art Nouveau, criticizing its tendency of figuration as “the stylizing style par excellence,” calling it “a reactionary attempt to sever technologically constituted forms from their functional contexts and turn them into natural constants, that is to stylize them.”<sup>59</sup> That’s a wholly modernist critique, and reckless too: blinded by ideology, the radical program of Art Nouveau escapes him. Basically, he refuses to accept the by-work transforming the work via the route of figuration, a feat purely effectuated by stylization as we have learned from Leroi-Gourhan’s analysis of cave painting. For Benjamin, it comes down to “an affair of petit-bourgeois parvenus,”<sup>60</sup> making Art Nouveau’s sleepwalking a matter of false consciousness, a collective state of denial, hopelessly trying to save the aura by a technological system in the process of abolishing it by replacing radiance with the transparency and clarity of structural functioning.<sup>61</sup> In his Freudian Marxism, the repression of the working class by the bourgeois leisure class runs parallel to the suppression of the functional structural work by useless ornamental by-work. In short, according to Benjamin, ornament alienates structure: when structure looks in the mirror, so to speak, it sees ornament, not itself. This is the same psychology of dialectics we encountered in Bachelard, a dialectics defined by the incapacity for what we have earlier called self-othering. Art Nouveau is far more radical and intelligent than opting for dialectics: it does not cast the soft in the hard as an act of repression and submission, it *inseminates* the hard with the soft to find its way to appearance. As stated earlier, the hard conceives the soft. Yes, it fully accepts the powers of reproduction, but as much as powers of *physis* as of mimesis. It involves an absorptive mimesis; the soft-hard relationship between wax, iron, and mold is one of internalization, not one of external shapes and alienation.

The Surrealist painter Salvador Dalí proved far more insightful than Walter Benjamin on this matter. For the same issue of *Minotaure* in which Breton published his surrealist manifesto of automatism, Dalí wrote an article on the “terrifying and edible beauty” of Art Nouveau, speaking of its “extra-plastic character.”<sup>62</sup> In a brilliant epiphany, Dalí, the champion of formlessness, compares Guimard’s two lampposts to Millet’s *The Angelus* painting. A “metallic atavism of Millet’s *Angelus*,” he calls it.<sup>63</sup> The two peasants in Millet’s painting, standing opposite each other with their heads piously bowed in prayer and their hands folded in front of them, *exactly mirror* the two lampposts with their bent tips holding red glass bulbs and their limb-like stalks splitting off halfway to hold the signage. What stunning insight into the powers of mimesis! That is, of mimesis, of reproduction, and their historical impulses. Being more than an industrial copying mechanism, reproductive technology drills wormholes between disparate and diachronic images, not unlike Auerbach’s divine—eternal and anachronic—spirit. “Atavism” is exactly the right word, and especially in its form of “metallic atavism” it denotes a reproductive technology that turns the

notion of mining into a psychology where ore and iron function as Dalian “psychoplastic” substances. Art Nouveau thus turns into an upgraded, improved form of revivalism, a *Gothic Atavism*; not simply the recurrence of the old, but phenotechnically reproduced.

Before we further study the entanglement of reproduction and mimesis, even that of psychological automatism and technological automatics, we should follow figuration all the way to its completion, the transfiguration stage. Since it occurs mainly on the level of smaller household objects, we should call this the *ceramic-floral transformation*. Art Nouveau’s evocation of the spirit is omnipresent: we are surrounded not only by plants, but by butterflies, dragonflies, peacocks and dragons, salamanders, snakes, octopuses, nymphs, sylphs, maidens of all kinds, elves, and of course flowers: waterlilies, periwinkles, buttercups, poppies, columbines, cyclamens, jonquils, snowdrops, thistles even, and more. Every object, be it a vase, a pen, an ink well, a pillow, a jewel box, a flask, a doorknob, a knife, fork, bottle, carafe, anything, they all exude spirits, and transform into spirits. Nothing comes to us unattended. The spirits are the pets or guardians of things, and in the transition of thing to appearance, where the vegetal stage emphasizes the first part of that transition, moving stance into figuration, we encounter the figure here in its sideways turn toward us, as an appearance. Appearance is the self-movement of things; that is why on this level the vegetable mixes with the animal. Are they animals caught in stone or flowers moving beyond themselves? Like an attending spirit or a daemon on the leash of a thing, it enables a thing’s mobility and allows it to wander about.

What Art Nouveau understands so well is that spirits dwell in both senses of the word, residing as well as lingering, and views belonging not as being nailed to *topos*, but as wandering around it. The English word “dwelling” relates etymologically to the Dutch *dwalen*, which likewise signifies lingering, wandering, or roaming, a meaning we already encountered in the first chapter when we considered the various connotations of the Italian word for “charm,” *vaghezza*, that signifies vagueness and wandering too. The aquarium of Art Nouveau’s house is that of lingering beings. Similar to the Medieval Gothic, this vagueness between motion and stillness carries a strong spectral component that points in the direction of ghostly spectrality as well as the color spectrum. In the world of the figurate and the florid it is the colors that wander, not the objects. Every possible technique is explored: the elaborate color schemes of wallpaper and tapestries, the obsession with makeup, the glazing techniques of ceramics, and most dazzling of all, the chemical techniques using metal salts to create opalescence on glassware and ceramics. When looking at a wall of blue tiles fired by William de Morgan,<sup>64</sup> for example, we see pure movement, the pure vibration of blue, not unlike the shimmering electric blue of television screens. It is the art of making walls glow, and not by applying paint from a pot. The color has been created in direct association with the mineral tile at high temperature, and each tile produces its

own state of blueness, so when hundreds of these tiles are assembled alongside one another, the whole surface starts to shake and quiver. This notion of movement is taken even further by the techniques of iridescence where the color is embedded in a metallic layer, breaking the light differently with the slightest displacement of either the light source or the onlooker. This subtlety of movement again strongly affects the form of the objects. The iridescent vases of the LötZ factories, for instance, combine the vague shapes of blown glass with extraordinary coloration, often in striped or wavy patterns. Iridescence is the mobile conception of color; it is flicker and shimmer taken literally.

One has to share the house with thing-spirits. The radicalism of Art Nouveau is this: that to be at home we have to absorb the Other, and this can only happen via mimesis. It is not the house as extension of the Self like Heidegger's realm of familiarity, nor that of pure alienated alterity, but a blurred, aqueous, and thick atmosphere of self-othering. And the ultimate figure of the Self-Other is Narcissus, the *FlowerMan*, to paraphrase one of Donna Haraway's compound figurations. The figurative water of the house of Art Nouveau is the same water of the pool which trapped Narcissus. His love is not between his face and its reflection; it is between him and the figure down below in the water. The well is a *deep mirror*, the instrument of absorptive mimesis. Narcissus, we should keep in mind, does not fall in love with himself—the flawed Freudian analysis—he falls in love with someone else: his Other. We should underscore these last two words since they concern an Other as much as his Self, a construct we call a “double,” or *Doppelgänger* in German.<sup>65</sup> Narcissus falls in love, but his love proves unresponsive, merely echoing everything he says. Inevitably, sadness takes an ever stronger hold of him. Every time he sheds his tears in the water the Other disappears, and in the end he dies of sorrow and changes into a flower. *Amore sui inardescens Narcissus in florem transmutatur*: his burning love made Narcissus change into a flower.<sup>66</sup> Of course, Art Nouveau reverses Ovid's story and *starts* with the flower; hence the relevance of Sternberger's analogy to the mythology of Narcissus. The story is reversed from tragic to consolatory. The house starts with the flower, then adds water, turns it into a mirror, to unite us at the end with our own death. The house of Art Nouveau is not one of comfort; it is one of solace.

The house explicitly plays with the idea of death: “sofas deep as tombs,” as Benjamin quotes from Proust who is again quoting Baudelaire's *The Death of Lovers*.<sup>67</sup> In no other form of architecture is the resident surrounded with such an excess of textiles: cushions, curtains, upholstery, carpets, tapestries; there is more clothing and lining on the part of the architecture than on the bodies of its inhabitants. In this house every room turns into a bedroom. The textile analysis forms the best part of Benjamin's study: the connection in Art Nouveau between *ennui* (boredom) and *étui* (case), the house as a velvet container:

It conceived the residence as a receptacle for the person, and it encased him with all his appurtenances so deeply in the dwelling's interior that one might be reminded of the inside of a compass case, where the instrument with all its accessories lies embedded in deep, usually violet folds of velvet.<sup>68</sup>

It does not require much effort on our part to see the analogy between the person lying in the case lined with velvet and Palissy's frog lying in its coffin of plaster. The tomb-sofa analogy reminds me of two other sofas: Edgar Allan Poe's sofa in *The Philosophy of Furniture*,<sup>69</sup> where the inhabitant lies asleep on his couch surrounded by all the objects in his house; and the sofa of Leo Tolstoy, who on March 1, 1897 enters the following words in his diary:

As I was walking around dusting things off in my room, I came to the sofa. For the life of me, I couldn't recall whether I had already dusted it off or not. Since movements are habitual and unconscious, I felt that it was impossible to remember it . . . if the complex life of many people takes place entirely on the level of the unconscious, then it's as if this life has never been.<sup>70</sup>

Maybe we should italicize that last part: *as if this life has never been*. We are getting closer to the heart of the matter. Benjamin's critique is accurate as an observation, not as a critique. It indicates what Art Nouveau deliberately sets out to do and moreover, what it needs to do: to bring us in contact with the spectral. Art Nouveau consciously recreates Ruskin's "veil of strange intermediate being" that flips back and forth between the moving and the still, in other words, between life and death.<sup>71</sup> And so it accepts the critical distance between us and things, only to fill it up with water and velvet. This makes Art Nouveau *radically acritical*, purposefully solving and dissolving differences but not without first acknowledging the discreteness of things. A dangerous game maybe, but a necessary one. Certainly, it proceeds in a different manner than the Medieval Gothic, which was a communal effort, and its spectral nature which presented the relic in a rounded halo was a form of communal solace, showing the spirits are on our side. Art Nouveau's Metallic Gothic purely addresses the individual. On the other hand, individuality is undeniably part of death. Death in general, even the death of others, implies our own death. For an acritical, that is, phenotechnical analysis of Art Nouveau, we should foreground its spectralism and the technological nature of spectralism. The images allowing us to exchange our living selves with our dead selves are technical images; they must be fabricated. That is why Art Nouveau presents us with the image of paradise, as Sternberger stated, aptly adding that "it does not aim to achieve a classless society but a guiltless one," basically saying that guilt is a form of self-repression.<sup>72</sup>

Paradise is not merely a state of bliss: all creatures are present including their differences, just like on earth, except that they have stopped eating each other, fighting each other, and having sex with each other. It is *a world of difference*

without differences, a world of self-otherings. While paradise does not distinguish between life and death it retains individuality. The distances between things remain without being critical. Art Nouveau is not only radically acritical then, it is also radically infertile. Walter Benjamin could not stomach that. The *Arcades Project* contains many references to infertility, of which the best known is:

The extreme point in the technological organization of the world is the liquidation of fertility. The frigid woman embodies the ideal of beauty in Jugendstil. (Jugendstil sees in every woman not Helena but Olympia.)<sup>73</sup>

The figure of Olympia is that of E. T. A. Hoffmann's story *The Sandman*, a story that bears a certain resemblance to the myth of Narcissus since the protagonist, Nathaniel, falls in love with a woman named Olympia who is later revealed to be an automaton. On many occasions, this story has been referenced in the context of what Freud called "the uncanny," *das Unheimliche*, literally "the unhomely."<sup>74</sup> Generally speaking, homely and unhomely signify comfort and discomfort, comfort as the minimizing of the gap between us and things, discomfort as its maximization. Art Nouveau does not opt for either one; it aims for a spectrality minus the uncanny, and for technology minus the familiarity. Meaning, a technology not of comfort, where things disappear behind the curtain of service, but of appearances. Nothing is invisible or repressed. Frigidity does not take the form of neurosis here, but of design: presenting us with beauty, yet without the sex, and presenting us with technology without the functionality. It offers us dysfunctional technology without being uncomfortable because it simultaneously offers us appearances that work perfectly fine.

When Olympia the automaton plays the harpsichord so well—as she does in Hoffmann's story—and a harpsichord is a piece of furniture, does that make Olympia a piece of furniture too, that is, a mobile part of the house? I think it does, and that must be why Benjamin chose it as an analogy for Art Nouveau: the ideal inhabitant *falls in love with his house*. Narcissus's story goes a step further than Hoffmann's, because it ends with his death and transformation into a flower. Yet the message is clear: Olympia is Narcissus's other half, the automaton is his appearance. The automaton is as much a mimetic doubling of the Other as a prosthetic extension of the Self. In other words, the *self-movement* of Olympia coincides with the *self-othering* of Narcissus. Here again, we shouldn't read Benjamin's remark as critique, but as an accurate observation, as is indirectly suggested by Sternberger: Art Nouveau follows the program of Narcissus without being narcissist. What we encounter here is the conflation of psychological automatism, the drawing and writing without a proper Self; Tolstoy's automatic dusting, the inhabiting without a proper Self; and technological automation including the automata of Hephaestus, which is the realm of technological doubles or robots. Yet, these automatisms link up indirectly, via haloes and appearances, not blindly like cogwheels.

The radically paradoxical machinery of the phenotechnical: things work without touching and they appear without being seen. Their appearance works. Where Benjamin worries about the dangers of mechanical reproduction replacing natural reproduction, we should acknowledge—with the help of Breton, Guimard, and Dalí—the machines' auratic spirit.<sup>75</sup> Surely it is infertile *only from the viewpoint of natural procreation*, not in the context of a nonhuman or human-machine intimacy, which requires artificial forms of insemination, as we saw in the Millet-Guimard transfer, or forms of ferric-vegetable transgenderism. Let us keep in mind that Guimard's vegetal interventions concern subway entrances. Art Nouveau does not "force the auratic" on technology, as Benjamin thought,<sup>76</sup> it *discovers and uncovers* the auratic there, in a new form. The subway is a cave-like structure, forming what Eliade would call "a new matrix," a mine-like network of underground veins of iron.<sup>77</sup> The Metallic Gothic is rooted in the mobility of iron, where it invents its own forms of guiltless sex and crossdressing mimesis, following all the ceremonial rules of Semper's rite of transfiguration. The house of Art Nouveau surrounds us with spirit-automatons, self-movers that prompt us to move in a constant exchange of movement and stoppage.

How else could we live in a house? Just imagine yourself alone at home sitting in a room, and thinking of all the other rooms in the house. Are these rooms to be thought of as empty? No. Spectrally, phenotechnically, we are still there, as are our co-residents and even the previous inhabitants. The house imprints us, especially by mobilizing its surfaces and by freely shedding its objects, all the way to the smallest one. It covers the whole range from rigid walls mobilized by wallpaper, photos, and paintings; to mobile but sluggish furniture such as chairs and desks; to handily movable parts such as doors and windows; to textiles such as bedsheets, curtains, and pillows; to the lightest transient objects such as bills waiting on the table or a towel left on the countertop. There is a specific magic to a door left ajar or the rings left by a coffee cup. By distributing itself over the whole range between the hardest and the softest, the house has the power of conjuring us up. It does not house us, *the house conjures us*. It is like that photo of an empty chair by the late French philosopher Jean Baudrillard, whose thought strongly revolved around taking pictures. The photo, titled *Sainte Beuve*, shows a traditional, red velvet armchair with a high backrest and a thick blanket of a similar red loosely draped over it. From the many flattened folds in the cloth, we can see somebody has been sitting in the chair for a long while, leaving behind the imprint of his or her presence.

It is a very powerful image. What exactly do we see? Is it death? For sure. Or is it use? That too. One could even say it is ornament, since it concerns a form of drapery. All three are simultaneously true: death, drapery, and use. Each of the three cannot be without the other; existence requires the continuous exchange of stillness, readiness, and movement. And while we are back at the topic of readiness, let us recall how Heidegger speaks of the doorknob of the lecture room he

never consciously notices, understanding it as an act of *Dienlichkeit*,<sup>78</sup> of serviceability on the part of the thing, like a lackey obligingly making himself invisible by stepping back behind the curtains. Heidegger mistakes our diminished consciousness and automatism for an alleged invisibility of the doorknob. He does not see that the exchange works because of *the thing's automatism*: the doorknob turns itself before he turns it, just like the jug, and just like the blanket in the chair creased by a spectral inhabitant. The thousands of hands that turned the knob in the past made it round, and now, at the moment he grabs it, that spectral roundness turns his hand. Not the thing is invisible, we are.

Phenomenology reasons by connecting visibility to seeing, and Heideggerian ontology reasons complementarily by connecting invisibility to workings, while in contrast to both, phenotechnology connects visibility to workings: we do not “see” things, we act and move in the glowing halo of their appearance. That makes the house of Art Nouveau anything but a private museum, which would constantly demand of us that we halt and look, which is what visitors or critics would do, not inhabitants, who pass everything by. The whole magical secret lies in the not-stopping and not-looking, in absorbing figuration via our daily routines. Art Nouveau accepts the phenotechnical analysis in the most radical manner by filling the house with watchful guardian spirits that help us turn the doorknob, sit in a chair, eat our meals, have a conversation, or go to bed. Not being servants, not acting for us or instead of us, they help us act, give us relief, lift the pen we pick up without any extra thought while we sit with our backs to the wall covered with wallpaper and unseen paintings.

## The Soft Machine and Plastic

When we start to contemplate the twentieth century as part of the history of soft-hard technologies, the first thing that comes to mind is how it broadened the range of applications of softness, even how it pushed that history into a state of pure softness, a state that goes beyond the usual preparatory stage to rigidity. The era developed a veritable passion for softness: rubber in all shapes and sizes; grease and jelly; thousands of types of foam and almost as many types of gels; plastics of all sorts; silicones and plastic surgery; cuddly toys and teddy bears; all the way to lava lamps, Slime, Silly Putty, liquid light, liquid crystals, and of course, chewing gum. Nothing explains the twentieth century better than looking at somebody endlessly ruminating chewing gum, be it in the form of short abrupt bites or a slow rotational motion, interrupted by the inflation of a bubble that ends in its popping, with its remains reeled in by the tongue to start the process all over. The accompanying “silky gaze” is no accident, the continuous chewing loops one back into oneself. The image of chewing without eating reveals a radicalization of softness, as if it is part of a process that will never reach the stage of product, a softness that may never even reach the mold.

These images give us a hint of the character of *plastic psychology* and how it might differ from the lithic and the ferric. Asking the question of pure plasticity, or as Dalí called it, the *extra-plastique*, in the case of the lithic or the ferric would be to ask what would happen to the water when caught in the limestone or to the wax unable to leave the iron. It would result in a plasticity constantly on the lookout for form, and would, in the context of Auerbach's definition of the figure as "plastic form,"<sup>79</sup> mean either continuous transformation, or the very form itself taking on formlessness by becoming rounded, premature, and amorphous. *Physis* in a continuous search for mimesis. The latter, in our form of absorptive mimesis where one material mimics another by interiorization, implies that the plastic is caught in an endless process of metamorphosis. Dalí's use of the term "edible architecture" for Art Nouveau was not some happy phrase, it precisely identified the stage of interiority, the continuous chewing without finding its form, though I hasten to add that his words were a typical twentieth-century statement, not one from the fin-de-siècle itself. Dalí, being on his way to the Plastic Age, overemphasized Art Nouveau's wax-like malleability, and therefore the phase of interiorization, in the same way Breton was expanding on the self-referential scrolls of automatic drawing. In that sense, we can say the plastic eschews the phases of both prefiguration and figuration, and strives for nothing less than *immediate transfiguration*.

This will be our hypothesis: in contrast to the lithic and the ferric, the realm of the plastic consists of a single-phased figuration process, that of the *plastic-floral transformation*, striving for immediate psychological flourishing and interior presence.

With the plastic we seem to have entered an age of amorphism and pure color, maybe even spectralism. We only have to take one look at the plastic chairs and the chairs made of foam or vinyl, some even inflatable or adaptable in any possible form—all this in the strongest colors and the roundest of shapes—to understand how plastic psychology seeks what we have earlier called *internal form*,<sup>80</sup> a form that is virtually amimetic, rhythmic, and in constant need of mental processing. We can see it even better when looking at the idiosyncratic psychedelic font styles, which are ultra-formless compared to those of Art Nouveau, swirling over posters and psychedelic album covers. The fonts are so shapeless that they are often squeezed between the edges of the paper and the contours of the images, while the images in their turn yield to the fonts, often responding by the staggered copying and offsetting of their contours, filling them with alternating and complementary colors. The psychedelic images contain on the one hand a component of *doodling*, that strange art of absent-mindedly filling sheets with flowers, zigzags, dots, stripes, and spirals in exploding, multiplying contours that are heavily decorated and tightly packed like fruit, while on the other hand maintaining a strong connection to stylistic elements of Art Nouveau.<sup>81</sup> With the female nudes appearing at every possible opportunity and the loose hair looking more like water and oil, the images seem to affect the spirit itself, and instead of depicting spirits like Art Nouveau did,

they try to directly access the process of transfiguration. Psychedelic graphic design constantly tries to slip in auras and haloes, yet unlike their traditional portrayal as radial spikes emanating from things as in the case of Fra Angelico or Gustave Moreau, it shows them as amplified, ever widening contours in vibratory and flickering coloration, ecstatically dissolving their own object. With psychedelic design all objects seem to exist in a liquid medium, their contours rippling away, just before the moment of disappearance. And this loss of form is inversely proportional to the increase of color and color pattern. The best illustration of such a transfiguration is surely the use of *liquid light*, the ambient multicolor projections used chiefly at pop concerts during the late 1960s and early 1970s. Seeing the colors overlap and seek form while continuously rotating in slow motion is as if we are looking at the apocalyptic end of the rose window, liberating its color from the stone constrictions of tracery. By becoming liquid, color reached a state of pure plasticity. While the Gothic is a form of *strong spectralism*, liquid light is an instance of *weak spectralism*. And though we can speak of a general loss of form, there is still figuration, which is independent of the notion of form, yet involves figuration in transit to interiorization, turning into pure color along the way.

It is one thing to seek the absence of form and replace it with color, attempts that still concern the form of formlessness, i.e., the external form of interiority; it is quite another to achieve interiority directly. It should come as no surprise that weak spectralism is necessarily connected to the extensive drug experiments during the Plastic Age, though we should realize that that argument exceeds the scope of cultural history. Our interests are purely phenotechnical, and in the history of the halo, psychedelia form a crucial ingredient. It is a history of soft-hard technologies which by definition involves the relationship between weak and strong or structure and ornament, not as applied to architecture, but ontologically. Saying that, I would not hesitate to call psychotropic drug use the search for ornament in a time when there was none to be found in architecture. And I am certainly not the first to make this connection. We should recall that Walter Benjamin invents his illustrious notion of the “aura”—a term he later mainly applied to art historical analyses—during his experiments with hashish. In his book on the subject, he regularly denotes aura in German as *ornamentale Umzirkung* (the latter word carrying the meaning of a radiant halo as well as that of a radial contour) emphasizing the direct connection between mind-altering drugs and ornament.<sup>82</sup> We find another example of this link in the works of Henri Michaux, who describes the effects of mescaline as a form of “ornamentogenesis,” a term marking the typically staggered repetition of the ever widening contours of things, while constantly changing their colors and vibrancy.<sup>83</sup> Michaux extensively studied these effects in his drawings. The British author Aldous Huxley similarly makes the comparison between mescaline-induced visions and jewelry in his 1956 essay *Heaven and Hell*, quoting from the neurologist Weir Mitchell who makes references to the Gothic:

At his entry into that world he saw a host of “star points” and what looked like “fragments of stained glass.” Then came “delicate floating films of color.” These were displaced by an “abrupt rush of countless points of white light,” sweeping across the field of vision. Next there were zigzag lines of very bright colors, which somehow turned into swelling clouds of still more brilliant hues.<sup>84</sup>

Maybe the most interesting author in this respect is the German essayist Ernst Jünger, who immersed himself in experiments similar to those of Benjamin, Huxley, and Michaux, and followed the same theoretical impulses. Often accompanied by Albert Hofmann, the chemist who synthesized LSD, Jünger would indulge in day-long psychedelic trips, dressing himself for the occasion in “a long, broad, dark blue-striped kaftan-like garment he had bought in Egypt.”<sup>85</sup> Jünger speaks of his visionary experiences in the same terms of spectral coloration, but places the psychotropic effects back into the realm of the vegetable. After all, psychotropic drugs are derived from plants and fungi: “When we recognize the plant as an autonomous power that enters [*eintritt*] to take root and blossom in us, we move a few steps away from the erroneous view that insists the spirit is the monopoly of humans and does not exist apart from them.”<sup>86</sup> Jünger uses the word *Eintritt* regularly to indicate the process of interiorization, extending it beyond the realm of chemicals and discussing the topic where it belongs, in the realms of consciousness. Rejecting the view that plants “expand” human consciousness, as is usually proclaimed, he views it as an exchange, even as the absorption of plant-consciousness. Three pages later he adds: “A plant, although itself scarcely capable of movement, captivates things that move,”<sup>87</sup> subtly pointing at the ambiguity of plant life’s involvement with humans. Though plants might offer themselves as food and even as a cure to human ailment, they might also kill. The notion of exchange remains ambiguous, a doubling we recognize from the ambivalence of the German word *Gift*, meaning both poison and gift. Analogous to the German term is the ancient Greek word *pharmakon*, so extensively discussed by Derrida, carrying the same double meaning of both psychotropic and medical drug.<sup>88</sup> On a side note, maybe at this point it would be a good idea to give away the secret of the self-movement of Hephaestus’ automata: according to multiple sources it was produced by a small amount of herbal drugs (*pharmaka*) hidden in the hollow statue, to then be lit up and left smoldering during the length of the ceremony.<sup>89</sup>

Going from chewing gum, to doodling, to liquid light, to psychotropic drugs in the space of a few paragraphs might seem a bit of a stretch, and while from the viewpoint of historiography it may well be, phenotechnically these phenomena are intricately connected, showing that the tendency of plasticity, which is a tendency toward formlessness, is necessarily one toward interiorization and spectralism. In short, it involves a conceptual connection, not a causal one: it concerns the same spirit, and as we saw in the cases of the lithic and the ferric, such a spirit is of a technological nature. The phenotechnology of plastics is that of transfiguration.

Instead of following the impact of the broader cultural exchanges between plasticity and spectrality, we should redirect our attention toward architecture and focus more on possible connections to where we left our discussion of the house. This would mean not a looking for mere formal plasticity in architecture, but specifically for the architectural experiments with figuration and automation in an attempt to produce mind-altering effects. It sounds wild, but oddly enough a considerable number of architects at the time were involved in such experiments that unfortunately seldom lead to actual buildings. As we have learned from Art Nouveau, the combination of form and automation means above all a search for architectural self-movement, similar to what we encountered in the relationship between Olympia and Narcissus, namely, a resonance between the self-movement of the house and the self-othering of its inhabitant. One of the best examples of an architecture at the intersection of automatism and spectralism remains the short story titled “The Thousand Dreams of Stellavista,” written in 1962 by J. G. Ballard, the British science-fiction author and self-proclaimed surrealist.<sup>90</sup> It involves a robotic, transformable house and though during the period many “soft houses” were conceived by architects, mostly in the form of inflatable structures or architectures of a continuous, “endless” geometry,<sup>91</sup> Ballard’s model still stands out as wholly original. The story follows the involvement, if not affair, of the protagonist, a young lawyer named Howard Talbot, with his “PT house,” an acronym for a “psychotropic house.”<sup>92</sup> At the beginning of the story, the actual mind-altering effects are not fully clear; initially, the house is described more in terms of biomechanics and responses.

The house, constructed mainly of a fictitious material called “Plastex,” allows for certain parts of the architecture to be movable in the sense of local displacements and transformations such as the “sudden deflatus of a corridor,” the “dilating and contracting” of the ceiling, and various deformations of the walls.<sup>93</sup> The house, however, does not transform according to direct manipulation by the inhabitant. A built-in memory system records movements and habits via “sensocells,” enabling the house to imprint the mood and character of its inhabitant. Since 99 Stellavista is one of the older PT houses, it still contains the character of its previous inhabitant, Gloria Tremayne, a famous actress, now deceased. (So, from the dead saint of the Gothic we have arrived at the dead celebrity: the house as an automated relic.) The relationship between house-Gloria and inhabitant-Talbot at first seems to evolve quite smoothly:

It’s always interesting to watch a psychotropic house try to adjust itself to strangers, particularly those at all guarded or suspicious . . . Hidden rifts began to distort the sphere, ballooning out one of the alcoves like a bubble of over-extended gum . . . The plastex swam and whirled like boiling toothpaste, then extruded itself into a small ledge.<sup>94</sup>

Our resident, who once was a junior lawyer defending the famous actress on trial for the murder of her husband (an architect, as so often in Ballard's stories), slowly becomes entangled in a more complex relationship with the house, and even divorces his wife because he finds himself gradually falling in love with the house-movie star:

Blissfully, her presence would be everywhere in the house, a thousand echoes of her distilled into every matrix and sensocell, each moment of emotion blended into a replica more intimate than anyone, apart from her dead husband, could ever know.<sup>95</sup>

Throughout the story, however, it remains unclear if Talbot falls in love because the actress has now metamorphosed into a house, and is therefore to be viewed in the fin-de-siècle tradition of falling in love with one's house, or whether the former affections that Talbot felt for the actress when he was a young lawyer have simply been revived. Although he now lives alone with the house, the liaison does not progress very blissfully and slowly turns sour. The walls "stiffen and darken in a vortex of anger"<sup>96</sup> and close to the end, during what Ballard describes as a "convulsion" and a *grand mal*, the house starts to vibrate rapidly:

Sure enough, the corridor wall began to retract. The archway, usually a six-inch wide slit, rose to admit someone. Nothing came through, but the room expanded to accommodate an additional presence, the ceiling ballooning upwards . . . The pressure zone paused at the foot of the bed and hesitated for a few seconds. But instead of stabilizing, the walls began to vibrate rapidly, quivering with strange uncertain tremors, radiating a sensation of acute urgency and indecision . . . A second later, as I lifted myself up on one elbow, a violent spasm convulsed the room, buckling the walls and lifting the bed off the floor. The entire house started to shake and writhe.<sup>97</sup>

After the crisis Talbot decides to disconnect the system, saying that "one day soon, whatever the outcome, I know that I shall have to switch the house on again."<sup>98</sup>

Appreciating the story within the context of soft-to-hard technologies can be illuminating, because it shows how the self-movement and automatism of the house goes beyond a technology of biomechanics to immediately turn into psychotropics. This is the main insight of the narrative: the technology of automation cannot be explained technically, only phenotechnically, that is, in its dependence on mimesis and softness. One would wish that all engineers and companies involved in robotics would have a basic grasp of the fundamental mimetic nature of automation, instead of viewing automation as a matter of mere service and comfort. We are invariably presented with service and comfort from the viewpoint of *handiness* and prosthetics, of the mere extension of the Self, but we

have seen over and over again that prosthetics cannot work without mimesis, that is, without self-othering. The extension is not added on but incorporated. Ballard's story, then, is elevated from the position of a curious fantasy existing at the margins of architectural history to the very center of the issue of home automation, if not of all forms of automation. The PT house is not psychotropic because it acts on the mind via the *pharmaka* of drugs but via the Hephaestian *pharmaka* of the self-movement of things that surround us, provoking an immediate effect on our psyche. This is what plastic psychology means: *the dynamics between soft and soft* that takes the process of mimesis to a whole other level. In Eliade's words, matrix and matter seem to be made of the same material: wax inhabiting wax. Wax conceiving wax. The story presents us with two "soft machines," to borrow William Burroughs's term: the human with its automatic habits à la Tolstoy and the automatic robot-house playing the diva, being in fact a *soft robot*, a variable one, not merely mechanical. In all our softness, we humans seek repetition and regularity, while the robot in all its hardness seeks unique and individual behavior.

In the case of Olympia, the *hard robot*, we asked ourselves if she shouldn't be considered more a part of the house, whereas with Gloria, we should ask ourselves if the house is not more like an extra inhabitant. When we are soft and the house is soft, the result is immediate transfiguration. It is as if house and inhabitant are chewing on each other, continuously looping the Other back into their Selves. Where does this process end exactly? This is precisely the central question in the myth of Narcissus: How deep is the mirror? Or: What is the depth of the water? Does the Other merely appear on the surface or does he or she live in the depths? When the water returns more than mere reflections, that is, gives more than immediate responses to external incentives of a Self, how much delay or change is needed for it to become Other? How much memory is needed? Automated architecture is generally understood as purely reflective, as the instant gratification of needs, as the uninterrupted extension of the Self, even in the concept of "responsive environments" proposed by Reyner Banham in 1965.<sup>99</sup> Ballard's house takes us in a diametrically opposed direction: it is purely the memory of a previous inhabitant, not of the current one, and therefore wholly Other. Existing between these two extremes, the example of the Paleolithic cave showed us that self-othering remains a question of water *and stone*, reflection and memory. Then, when the house in fact becomes an Other, i.e., capable of self-movement according to Hegel's definition, at what point does it start to alienate? For a technical form of self-othering this is an essential question: it needs to find a position between the reflective Self and the alienating Other. Find that point and you will find love. For any type of robotic architecture it is—will be—essential to understand that it cannot simply be reasoned from the viewpoint of comfort and prosthetics; robots or automatons are mimetic, but that mimesis can only be successful via the route of *physis*, that is, the route of internalization and depth.

At this point Hegel's history of self-consciousness dissolves. The conceptual core of dialectics, the opposition between *Herr und Knecht*, master and servant, can never be resolved dialectically, only contrapuntally, because they are bound to absorb each other mimetically. The historical project of self-movement, then, being dependent on self-othering, should be read as a history of mutual empowering instead of Hegel's history of alternating overpowerings. Traditionally, the dialectic of master and servant translates in architecture directly into that of the inhabitant as the master of the house and that inhabitant being served, what the architect Louis Kahn called "served" and "servant" spaces, where the latter could mean literally the space for servants and storage, but also that of lift shafts, ventilation, and sewerage, as well as the hollow walls and ceilings where architects hide support structure and plumbing.<sup>100</sup> Surely, it is no accident that the word "domination," like "domestication," is derived from the Latin *domus*, "house." This archetypal form of bondage follows a history that runs from house slaves to domestic servants such as butlers and housekeepers, to then be taken over by a plethora of household technology such as refrigerators, ovens, washing machines, microwaves, alarm and air conditioning systems, leading seamlessly to our contemporary internet of things and smart homes. Hardly a history of emancipation, but certainly one of self-movement.

Yet, when we ask ourselves at every stage of this development who in fact dominates who, we invariably get ambiguous answers. Who exactly is the master of the house when the butler brings the scotch a second before it is ordered? What exactly goes on when a servant has adapted so perfectly to the master? Is that still serving or is it pampering? Who lives whose life? (A question so poignantly raised in *The Servant*, the British 1948 book and 1963 movie that end with completely reversed roles of master and servant.) And what about that perfection being developed in its modern technological form, e.g., when the air is automatically conditioned? What or who is then being conditioned? Let us not forget that from a psychological viewpoint the hollow spaces of technology, which architects traditionally draw as monolithically solid and indicate with the Beaux-Arts term *poché*, are regarded as highly ambiguous, as often functioning as the space of daydreams—the attic being a room of play, for instance—as that of nightmares: virtually no horror or science-fiction movie goes without the monsters entering the living quarters via sewers or air ducts. The ambiguity of serviceability reaches its apex in the electronic form of the smart home saturated with ubiquitous computing, which appears more and more like a life-support system or a form of intensive care: the inhabitant as patient, with the house claiming more and more of its mobility.<sup>101</sup>

When phenotechnology tells us that no technological system attempting to extend the Self should ever be considered from a solely prosthetic viewpoint, but as part of Auerbach's history of mimesis, then technology, and especially the technology of automation, is responsible for an increasingly vital part of that project, and cannot be understood through the meager rhetoric of servitude

and support. Ballard's story, like most of his work, shows that by definition any technological justification of technology is inherently flawed. Just imagine a smart home in a more extreme form. The fully automated house of comfort would close its own curtains, wake you up on time, would order your books and replenish the groceries, clean the windows, and maybe one day dust your sofa; in short, it would gradually have taken over to live your life. While trying to close the gap between us and things, the house automatically starts to replace its inhabitant. Unwittingly, it would realize the myth of the *Doppelgänger*, yet without the myriad of mimetic imagery that has always accompanied the double. And we should keep in mind that the myth of the *Doppelgänger* always tells the story of meeting our deaths. The dream of the purely prosthetic ends like Edgar Allan Poe's story "The Man That Was Used Up": after removing the last of many prostheses, nothing much is left.

We should, for a moment, consider the reverse option, a house of the pure gap, the house of discomfort and the deconstructionist hiatus, what the architectural historian and essayist Anthony Vidler called an "architecture of the uncanny."<sup>102</sup> No doubt that would amount to a critical project, one trying to restore interruption in the sense of a Benjaminian *Kritik* by deconstructing comfort and service. Where would that leave us?—in a whirl of Freudian fantasies. Critique does not enable the looping of the prosthetic and the mimetic, as we saw from Benjamin's views on Art Nouveau, it merely wants to distance itself and cut off our all-too intimate relations with things. And at the moment we are cut off, our fantasies start escalating. In fact, Freud's uncanny is inextricably linked to castration, a notion that turns a theory of the double and mimesis into one of loss. Freudian prosthetics is not linked to mimesis but to a lack and a gap; he even viewed the *Doppelgänger* as a fetishized stand-in for missing members.<sup>103</sup> What in the relic was a source of radiance, the inclusion of absence in the flickering of presence, turns with the uncanny into its opposite: the objectification of absence. The first is a project of beauty and love, the second of the sublime and fear. In the latter view, Olympia becomes the self-moving, severed body part constantly referring to a static absence that cannot be healed. All mimesis and exchange is excluded. The uncanny is merely the psychological result of our confrontation with an immobile and unnegotiable gap—*the gap as obstacle*<sup>104</sup>—and is therefore even more dialectical than the opposition of master and servant since it opposes the Self with its negation: aiming to restore the gap, it reinforces dialectics. Ergo, the critique of servitude turns out worse than servitude itself. Restoring the gap is an absolute necessity, but only as the starting point for the discharge of appearances, the sequence of figuration, not as the installment of the mere gap, rupture or *Riss*; an attempt to reinstate the sublime with its immobile aesthetic of abyss and negation.

This leaves us with only one viable option: accepting and developing automation not as a project of comfort but as one of mimesis, that is, deep, absorptive mimesis. In terms of the figures we introduced during the course of this chapter, this would mean that Olympia's self-movement needs to meet Narcissus' self-othering

*halfway*, in the gap. The gap always consists of two halves, what we have earlier called the double gap, namely the gap between our automatisms and our actions on the one hand, and between our actions and our environment on the other. Grace requires just enough otherness to enable the Self. Precisely at this point Ballard's house faltered as well, not so much because it absorbed the psychology of an actress who slowly descended into madness, but mainly as a result of failing to sufficiently absorb its current inhabitant. The PT house all too easily tilts over to a house of discomfort and alienation. There is self-movement, yet no self-othering. The crossing of the gap is as subtle as the sizing of the gap. A halfway-meeting means the gap needs to be of a particular size: automation neither as the extension of our own automatisms and habits nor as the pure installation of otherness and alienation. Somewhere between these two, between reflection and memory, there should be enough delay and change that records our activities and returns—"plays"—them slightly altered, unsettling us enough without throwing us in the abyss of uprootedness. Above all, it would mean not replacing the house of perfect workings with one that does not work, but with one that allows technology and automation to *appear*, instead of just doing its job. The fact that Gloria is, ultimately, a techno-mythological *figure*, is the main achievement of Ballard's project, where the technical responses amount to and accumulate into a self-telling story, maybe even a self-generative game, instead of just a bunch of dispersed effects—a line of thought we will be resolutely pursuing in the final chapter. The narrative lets her presence wander through the house, change her moods where needed while challenging and intervening in everyday routines, as well as suddenly disappear and remain silent. (It's always a sign of storytelling when the absence of a character adds to the continuity of the narrative.)

What Ballard's story proves is that *every house is a double house*: the space we inhabit and the space the house itself inhabits, and that is why we are never sure if our mood is not that of the house. Yet, the PT house would need an upgraded version where the things surrounding us come to life all right, even confronting us spectrally with our own deaths, yet not going so far as to bury us on the spot or chase us out of the house. I am just wondering what it would mean, figuratively speaking, to see our earlier examples, such as Baudrillard's folds in the blanket or the rings left by the coffee cup, take shape in an electronic, automated form. Like Ballard's PT house, it would involve a definite shift of architecture's intelligence from the hard to the soft by moving all the technology generally dedicated to structure and stability to the domain of textile with its curtains, carpets, cushions, and consequently to that of ornament. True, the blanket folds and coffee rings are futile, quotidian instances, yet they indicate the possibly variable depths and layerings of memory that would be able to bridge the chasm between the pure immediacy of our daily actions and the memorizations architecture traditionally makes use of in the form of preprogrammed spaces such as bedroom, living room, kitchen, and the like. It would involve an electronic house of imprinting, as if

Narcissus now stares into thicker, *slow water*, water that would also have the power to change images, substantiate them, and create new figures that would stay with us to suddenly disappear and to reappear again. Maybe even create an individuated mythology.

What kind of imprints could those be, and how long should they last? Maybe some ought to last very long, staying over many generations, like ancestors. Such a viscous, electroplastic, or in Dalí's terms, extraplatic—if not psychoplastic—architecture would continue to be an art of slowness, a medium that etymologically abhors immediacy, though without too much difficulty we could imagine a whole variety of speeds. Fast gifts and slow responses, or as we put it in the first chapter: fast stillness and still movement. Speeds of recording and speeds of playing: an architecture thus affected by the quality of play and games would open up a whole new field of possible figuration techniques. From that moment on appearances would immediately start to function as spirits, as we saw too in the Paleolithic caves: the animals on the walls started to move because of the moving torches. And vice versa. Are we moving them or are they moving us?—that is the central question of grace, if not of the entire book. Grace works exactly there where that question cannot be answered anymore, because between Self, Other, and spirit a gift cycle starts to get going that makes the figure simultaneously an interior and an exterior appearance.

Such a spectral “House of the Spirits” where nothing is really buried, would be what Aristotle once called a *thaumaton automaton*, a wondrous self-mover, a house that would accommodate automata not as servants, i.e., as self-movers moving-for and moving-instead-of us, nor would it consider its inhabitant the master of the house. Non-domesticated automata cohabiting with non-dominating inhabitants. As stated above, every house is a double house, that is how it was 27,000 years ago in the caves and that is what it would be in its automated form. Viewed from that perspective, I cannot see anything but a Hegelian history—minus the dialectics—driven by a *teleology of self-movement* converging more and more with Auerbach's history of mimesis, driven by a *teleology of self-othering*. What we have called parergonomics would take the form of an ornamental robotics or *phenorobotics*, a technology based on the ornament-apparatus ambiguity that we discussed in the previous chapter, seeking the technological self-movement of appearances, in essence no different from the fairies, elves, sprites, spirits, and specters of Art Nouveau, nor from the tripods, silver dogs, and golden maidens of Hephaestian mythology.

Spectral architecture accepts the gap, just as the figurate architectures of the Cave Gothic, the Medieval Gothic, and the Metallic Gothic did. Yet in all these atavisms of the Gothic, the gap turned *into a medium*, a room fulfilled by and filled with appearances; it did not present itself as unbridgeable. Medium—in all its possible meanings—implies spirit and self-movement at the same time: it contains the glistening of consciousness as well as the conductivity of movement. In these

instances of the medium water, liquidity and plasticity played key roles, though in different forms. The water makes the gap mobile. The softness allowing hard structure to turn into appearance is also what moves matter toward us; after all, appearances are the vehicles of things. The installment of the gap is necessary to posit the Other as the start of the process of absorptive mimesis, not as the installment of alienation or alterity. The spectral, as the terminal form of the figurate, embraces the notion of automation, automatism, and automata, yet as a strategy of visibility, as the technical self-movement of ornament, flipping back and forth between vegetal and animal forms of transformation. Where the house of comfort merely seeks to extend the Self, and the house of discomfort seeks to install the Other, a spectral architecture would seek to move the Other toward us, just enough for the Self to engage in mimesis: at this point self-movement and self-othering start to touch, at the very moment the spectral starts to shimmer and shine.

- 112 Douglas Hofstadter, *Gödel, Escher, Bach: An Eternal Golden Braid* (New York: Vintage Books, 1980), 684–719.

## Chapter 4: Figurate and Spectral Architecture

- 1 Cf. Spuybroek, “Gothic Ontology and Sympathy,” 155.
- 2 Auerbach, *Mimesis*, 73.
- 3 Strictly speaking, the term “representation” is a mistranslation of the German *Darstellung* that Auerbach uses in the original text, meaning “presentation,” establishing a subtle difference from *Vorstellung*, the German word for “representation,” as we know it from Schopenhauer. Cf. Chapter Three, note 57. Cf. Hayden White, *Figural Realism: Studies in the Mimesis Effect* (Baltimore, MD: Johns Hopkins University Press, 1999), 94.
- 4 Auerbach, *Mimesis*, 116, 176, 190.
- 5 *Ibid.*, 73.
- 6 Deleuze, *Francis Bacon*, 47, 20.
- 7 *Ibid.*, 15, 16, 21, 31, 50, 58, 83, 84, 89.
- 8 G. W. F. Hegel, *The Phenomenology of Spirit*, trans A. V. Miller (Oxford: Oxford University Press, 1977 [1807]), 111–19. In Miller’s translation the German terms *Herrschaft* and *Knechtschaft* are rendered as “lordship” and “bondage” respectively.
- 9 *Ibid.*, 501–2.
- 10 Bachelard, *Earth and Reveries of Repose*, 133–211.
- 11 Gaston Bachelard, *Earth and Reveries of Will: An Essay on the Imagination of Matter*, trans. Kenneth Haltman (Dallas, TX: Dallas Institute Publications, 2002 [1943]), 7.
- 12 *Ibid.*, 15–17.
- 13 André Leroi-Gourhan, *Évolution et techniques*, Vol. 1: *L’Homme et la matière* (Paris: Éditions Albin Michel, 1971 [1943–45]). Cf. Tim Ingold, *Making: Anthropology, Archaeology, Art and Architecture* (London: Routledge, 2013), Chapter 3, “On Making a Handaxe.”
- 14 Bachelard, *Earth and Reveries of Will*, 32–33.
- 15 Hegel, *Phenomenology of Spirit*, 102, 113, 115.
- 16 Donna Haraway, *How Like A Leaf*, interview with Thyrza Nichols Goodeve (London: Routledge, 2000), 25, 133, 137. And: Haraway, *Modest\_Witness@Second\_Millennium. FemaleMan Meets OncoMouse* (London: Routledge, 1997), 16.
- 17 David Sylvester, *The Brutality of Fact: Interviews with Francis Bacon* (London: Thames & Hudson, 1987).
- 18 Auerbach, *Mimesis*, 73–74 and *Scenes from the Drama of European Literature*, 38–51. Cf. White, *Figural Realism*, Chapter 5, “Auerbach’s Literary History.”
- 19 Stokes, *The Critical Writings of Adrian Stokes*, Vol. I, 220.
- 20 *Ibid.*, 15–102. And: Ernst Jünger, *Annäherungen: Drogen und Rausch* (Stuttgart: Klett-Cotta, 2014 [1970]), 18–19: “In these places, death no longer stands out as the pallor of an isolated skull, but by virtue of its incredible sedimentation. In the past all of this was the structural skeleton of life: snails and clams, the shells of diatoms, corals

- that had been deposited for thousands of years before reaching the highest degrees of fossilization” (my translation, L. S.).
- 21** Spuybroek, *Sympathy of Things*, 17–19.
- 22** John Ruskin, “The Nature of Gothic” (originally a chapter in the second volume of *The Stones of Venice*, 1852), in *The Works of John Ruskin*, Library Edition, ed. E. T. Cook and Alexander Wedderburn, 39 vols. (London: George Allen, 1903–12), Vol. X, 214. Cf. Spuybroek, *Sympathy of Things*, 5–18.
- 23** Spuybroek, *Sympathy of Things*, 1–51.
- 24** Cf. Lars Spuybroek, ed., *Research & Design: Textile Tectonics* (Rotterdam: NAI Publishers, 2011), 33–55.
- 25** See Chapter Two, note 14.
- 26** Robin Evans, *The Projective Cast: Architecture and Its Three Geometries* (Cambridge, MA: MIT Press, 1995), Chapter Five, “Drawn Stone.” And: Spuybroek, “Gothic Ontology and Sympathy,” 139.
- 27** G. W. F. Hegel, *The Science of Logic*, trans. A. V. Miller (Amherst, NY: Humanity Books, 1997 [1812]), 149. In this translation Hegel’s *schlechte Unendlichkeit* is rendered “spurious infinity.”
- 28** Hegel, *Phenomenology of Spirit*, 149.
- 29** Michael Marder, *Plant-Thinking: A Philosophy of Vegetal Life* (New York: Columbia University Press, 2013), 46.
- 30** Jurgis Baltrušaitis, *Das phantastische Mittelalter* (Frankfurt am Main: Ullstein, 1985). And: Baltrušaitis, *Aberrations: An Essay on the Legend of Forms* (Cambridge, MA: MIT Press, 1989).
- 31** Cf. Richard A. Etlin, *The Architecture of Death* (Cambridge, MA: MIT Press, 1989).
- 32** Haraway, *Modest\_Witness*, 9.
- 33** Peter Brown, *The Cult of Saints: Its Rise and Function in Latin Christianity* (Chicago, IL: University of Chicago Press, 1981), 72.
- 34** See Caroline Walker Bynum, *Christian Materiality* (New York: Zone Books, 2011), 132–33, 154–55: “the relic both is and is not the saint.” And on the “flickering, incandescent” nature of relics and reliquaries, see: Patricia Cox Miller, “‘The Little Blue Flower Is Red’: Relics and the Poetizing of the Body,” *Journal of Early Christian Studies*, vol. 8, no. 2 (2000), 213–36, and: Cynthia Hahn, *Strange Beauty: Issues in the Making and Meaning of Reliquaries* (University Park, PA: Pennsylvania State University Press, 2012).
- 35** Cf. Bartlett, *Why Can the Dead Do Such Great Things?*, 3: “Of all religions, Christianity is the one most concerned with dead bodies.”
- 36** Cf. Erwin Panofsky, *Gothic Architecture and Scholasticism* (New York: Meridian Books, 1961 [1951]), 71.
- 37** Umberto Eco, *The Aesthetics of Thomas Aquinas*, trans. Hugh Bredin (Cambridge, MA: Harvard University Press, 1988 [1970]), 111.
- 38** The term “spectral” has taken a flight since Derrida introduced it in *Specters of Marx: The State of the Debt, the Work of Mourning & the New International*, trans. Peggy Kamuf (London: Routledge, 2006 [1993]). For Derrida, of course, it means “the visibility of the invisible” (p. 125), a fundamentally modernist argument against beauty in favor of sublimity.

- 39 Ibid., 126. The same Derrida did with givenness: instead of keeping the radiant gift and destroying the phenomenological “for us,” he kept the human position but deconstructed the gift by calling it “impossible” and an “aporia.” (See Chapter Five, note 54.) An identical strategy is followed here: instead of keeping presence and liberating it from human consciousness, he keeps human consciousness and destroys appearances; the reason why Derrida refers to Freud’s notion of the uncanny (pp. 125, 192), which is so strongly based on castration (see note 103). The issue with the uncanny, or what today is called the weird or the dark, is that it is only weird or dark (or, in Lovecraft’s terms, “eldritch”) from the viewpoint of human consciousness, not from the position of appearances by and of themselves.
- 40 In agreement with Derrida, I view the spectral as a “frequency” (p. 125), a flickering between life and death of the thing; *not of our view of the thing*, however, but of the thing-appearance itself. Flickering is precisely what makes a thing a thing-appearance.
- 41 Ruskin, *Works*, Vol. VII, 14–15. Cf. Spuybroek, *Sympathy of Things*, 63.
- 42 St. Thomas Aquinas, *Summa Theologica*, trans. Fathers of the English Dominican Province. Kindle Edition (Claremont, CA: Coyote Canyon Press, 2010), I.39.8co. Cf. the discussions in Chapter Six and Chapter Eight on color and *claritas*.
- 43 Hegel, *Phenomenology of Spirit*, 420.
- 44 Eliade, *The Forge and the Crucible*, 57.
- 45 Cf. J.-F. Lyotard, “Les Immatériaux,” in *Thinking About Exhibitions*, ed. R. Greenberg, B. Ferguson, and S. Nairne (New York: Routledge, 1996), 114–25.
- 46 Eliade, *The Forge and the Crucible*, 99.
- 47 Walter Benjamin, *The Arcades Project*, trans. Howard Eiland and Kevin McLaughlin (Cambridge, MA: Belknap Press, 1999), 557.
- 48 Dolf Sternberger, *Über Jugendstil* (Berlin: Insel Verlag, 1977), 31: “So entstand als eigenstes Werk des Jugendstils das Heim.”
- 49 Victor Hugo, *The Hunchback of Notre Dame* (Ware: Wordsworth Editions, 2005), 146: “This will kill that.” And on p. 148: “Printing will kill architecture.”
- 50 Marcel Proust, *In Search of Lost Time*, Vol. 6: *Time Regained*, trans. Andreas Mayor and Terence Kilmartin (New York: Modern Library, 2003), 509: “I should construct my book, I don’t dare say ambitiously like a cathedral, but quite simply like a dress.”
- 51 The fin-de-siècle magazine *House Beautiful* was named after John Bunyan’s *Pilgrim’s Progress*, the book that was “delivered under the similitude of a dream.”
- 52 Ovid, *The Metamorphoses*, trans. A. S. Kline (On-Demand Publishing, Poetry in Translation, 2000), III, 506–8: “There was no body. They came upon a flower, instead of his body, with white petals surrounding a yellow heart.”
- 53 An observation made by Hilde Heynen in *Architecture and Modernity: A Critique* (Cambridge, MA: MIT Press, 1999), 111.
- 54 As we find it in Baudelaire’s poem “The Double Room” from *Paris Spleen*: “The furniture has elongated, prostrated and languishing forms. The furniture seems to be dreaming. You might say it is endowed with a somnambulist life, like the vegetable and the mineral. The fabrics speak a mute language, like flowers, skies, and setting suns.” From: Charles Baudelaire, *Flowers of Evil and Other Works*, trans. Wallace Fowlie (New York: Dover, 1963), 119. Benjamin calls this poem a “prefiguration of Jugendstil” (*Arcades Project*, 553).

- 55 André Breton, "The Automatic Message," trans. Guy Ducornet, in *What is Surrealism?* (New York: Monad Press, 1978 [1933]), 104.
- 56 André Breton, "Le message automatique," in *Minotaure, Revue artistique et littéraire*, no. 3/4 (Paris: Éditions Albert Skira, 1933), 55–65.
- 57 Breton, *What is Surrealism?*, 103.
- 58 Breton, "Le message automatique," 58–59. (My translation, L. S., of the caption "Portrait d'esprits revêtus de leur costume fluidique".)
- 59 Benjamin, *Arcades Project*, 557.
- 60 Walter Benjamin, *Reflections*, trans. Edmund Jephcott (New York: Schocken Books, 1978), 180.
- 61 Ibid.: "To live in a glass house is a revolutionary virtue par excellence. It is also an intoxication, a moral exhibitionism that we badly need." A more modernist statement is scarcely possible.
- 62 Salvador Dalí, "De la beauté terrifiante et comestible de l'architecture modern' style," in *Minotaure, Revue artistique et littéraire*, no. 3/4 (Paris: Éditions Albert Skira, 1933), 70, 73.
- 63 Ibid., 75. (My translation, L. S., of the caption "Il s'agit encore d'un atavisme métallique de L'Angélus de Millet".)
- 64 In the entrance hall of Frederic Leighton's house in London.
- 65 Sigmund Freud, "The Uncanny," in *Art and Literature: Jensen's 'Gradiva', Leonardo da Vinci and Other Works*, Vol. 14 of *The Pelican Freud Library*, trans. James Strachey (London: Penguin Books, 1980 [1907]), 335–76. See also: Otto Rank, *The Double: A Psychoanalytic Study*, trans. Harry Tucker (New York: Meridian, 1979 [1914]).
- 66 The title of Antonio Tempesta's 1606 engraving of Narcissus at the well.
- 67 Charles Baudelaire, "The Death of Lovers," in *Flowers of Evil*, trans. Lewis Piaget Shanks (New York: Ives Washburn, 1931): "soft divans far deeper than a tomb." Cf. Benjamin, *Arcades Project*, 309.
- 68 Benjamin, *Arcades Project*, 220.
- 69 Edgar Allan Poe, "The Philosophy of Furniture," *Burton's Gentleman's Magazine*, vol. 6, no. 5 (May 1840), 243–45: "The proprietor lies asleep on a sofa—the weather is cool—the time is near midnight—I will make a sketch of the room ere he awakes." This is the first proper foreshadowing of Art Nouveau, earlier even than Baudelaire's poems.
- 70 Leo Tolstói, diary entry "1 March, 1897," in *The Journal of Leo Tolstói, 1895–1899*, trans. Rose Strunsky (New York: Alfred A. Knopf, 1917), 133.
- 71 Cf. Spuybroek, *Sympathy of Things*, Chapter 2, "The Matter of Ornament."
- 72 Sternberger, *Über Jugendstil*, 10. (My translation, L. S., of the original German: "Viel mehr als eine klassenlose, ein schuldlose Gesellschaft dachte er herbeizuführen.")
- 73 Benjamin, *Arcades Project*, 559.
- 74 Freud, "The Uncanny," 341–47.
- 75 Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Illuminations*, trans. Harry Zohn (New York: Schocken Books, 2007), 217–52.
- 76 Benjamin, *Arcades Project*, 557.

- 77 See note 44.
- 78 Heidegger, *Being and Time*, 96. In the original German Heidegger uses *Klinke*, “latch.”
- 79 See Chapter Three, note 50.
- 80 See Chapter Two, “Foot Space and Rhythm.”
- 81 Cf. Phillippe Thiébaud, *Art Nouveau Revival* (catalog to the exhibition at Musée d’Orsay, Zwijndrecht: Snoeck, 2009).
- 82 Walter Benjamin, “Protocols of Drug Experiments,” in *On Hashish*, trans. Howard Eiland et al. (Cambridge, MA: Belknap Press, 2006), 58. See also: Miriam Bratu Hansen, “Benjamin’s Aura,” *Critical Inquiry*, vol. 34, no. 2 (Winter 2008), 336–75.
- 83 Henri Michaux, *Light Through Darkness*, trans. Haakon Chevallier (New York: Orion Press, 1963), 9.
- 84 Aldous Huxley, *Heaven and Hell* (London: Chatto & Windus, 1956), 20. Huxley is partially quoting from Weir Mitchell’s 1896 report on mescaline intoxication. Let us in this context not forget to mention the strange theosophical theories of Annie Besant and C. W. Leadbeater in *Thought-Forms* (Wheaton, IL: Quest Books, 1999 [1905]). At the end of the book (pp. 66–77), in a section titled “Forms Built by Music,” the authors discuss three images of Gothic cathedrals emitting massive, synesthetic “color clouds” from their spires in a distinctly psychedelic style, as if the rose windows are ejected in gas form. Walter Benjamin’s notion of the aura was directly derived from such theosophical theories.
- 85 Albert Hofmann, *LSD, My Problem Child*, trans. Jonathan Ott (Sarasota, FL: MAPS, 2005 [1979]), 169.
- 86 Ernst Jünger, *Annäherungen: Drogen und Rausch* (Stuttgart: Klett-Cotta, 2014 [1970]), 42.
- 87 *Ibid.*, 45 (my translation, L. S.).
- 88 Jacques Derrida, “Plato’s Pharmacy,” in *Dissemination*, trans. Barbara Johnson (London: Athlone Press, 1981), 65–172. See also: Michael Rinella, *Pharmakon: Plato, Drug Culture, and Identity in Ancient Athens* (Lanham, MD: Lexington Books, 2011).
- 89 Faraone, “Hephaestus the Magician and Near Eastern Parallels for Alcinous’ Watchdogs,” 257–80.
- 90 J. G. Ballard, “The Thousand Dreams of Stellavista,” in *Vermilion Sands* (London: Jonathan Cape, 1971). First published as a short story in the American SF-magazine *Amazing Stories*, vol. 36, no. 3 (March 1962). In 1993 Maurice Nio and I published a Dutch translation of Ballard’s short story in our capacity as editors of the journal *NOX*, in *NOX C: Chloroform*, “De Duizend Dromen van Stellavista” (Amsterdam: 1001 Publishers, 1993), 55–87. Deeply influenced by Ballard’s story, we created a video titled “Soft City” showing buildings and objects in a state of continuous transformation. This seven-minute long video was broadcast on national television (VPRO) in the Netherlands on March 28, 1993. See also: Lars Spuybroek, *NOX: Machining Architecture* (London: Thames & Hudson, 2004), 14–17.
- 91 As, for example, in Frederick Kiesler’s “Endless House,” Antti Lovag’s “Bubble House,” or the inflatable, pneumatic structures of David Greene or Jean-Paul Jungmann.
- 92 Ballard, “The Thousand Dreams of Stellavista,” 187.
- 93 *Ibid.*
- 94 *Ibid.*

- 95 Ibid., 196.
- 96 Ibid., 203.
- 97 Ibid., 204–5.
- 98 Ibid., 208.
- 99 A reference to Reyner Banham’s famous article “A Home Is Not a House,” that distinguishes between a controlled and controllable (or “responsive”) environment, where the first indicates a purely utilitarian conditioning of the environment and the second that is more open to “personal needs and desires,” as Nigel Whiteley formulates it in his *Reyner Banham: Historian of the Immediate Future* (Cambridge, MA: MIT Press, 2002), 212. Banham’s proposal to seek more controllable environments is still fully reasoned within the framework of extension, service, and comfort. Cf. Reyner Banham, “A Home Is Not a House,” with the wonderful illustrations by François Dalleuret, *Art in America*, vol. 2 (1965), 70–79. Whiteley notes that “responsive” is not Banham’s terminology, but his (p. 225).
- 100 Robert Twombly, ed., *Louis Kahn: Essential Texts* (New York: W. W. Norton, 2003), 49–51, *passim*. The division between “served” and “servant” spaces probably originated with Anne Tyng. See: Anne Griswold Tyng, ed., *Louis Kahn to Anne Tyng: The Rome Letters 1953–1954* (New York: Rizzoli, 1997), 192. Thank you Heather Ligler for pointing this out to me. See also Chapter Eight, note 80.
- 101 Cf. “Comfort Issue,” *Forum*, quarterly of the society *Architectura et Amicitia*, vol. 38/1+2 (May 1995), ed. Roelof Mulder, Winy Maas, Wim Nijenhuis, Lars Spuybroek, and Jurjen Zeinstra.
- 102 Anthony Vidler, *The Architecture of the Uncanny: Essays in the Modern Unhomely* (Cambridge, MA: MIT Press, 1992). Cf. Georges Teyssot, *A Topology of Everyday Constellations* (Cambridge, MA: MIT Press, 2013).
- 103 Freud, “The Uncanny,” 356–58.
- 104 In terms of the sublime, we recognize this as Kant’s *Abgrund* (“abyss”) and Schelling’s *Ungrund* (“nonground”): “. . . wie können wir es anders nennen als den Urgrund oder vielmehr *Ungrund*?” [. . . what else can we call it than the primordial ground, or better, the nonground?]. Friedrich Wilhelm Joseph von Schelling: *Werke*, 3 vols., ed. Otto Weiß (Leipzig: Fritz Eckardt, 1907), III, 501. The literal meaning of the word “abyss” is “bottomless.”

## Chapter 5: Grace and Gravity

- 1 Pierre Bourdieu, *Outline of a Theory of Practice*, trans. Richard Nice (Cambridge: Cambridge University Press, 1999 [1972]). And: Francisco Varela, Evan Thompson, and Eleanor Rosch, *The Embodied Mind: Cognitive Science and Human Experience* (Cambridge, MA: MIT Press, 1993).
- 2 Terrance MacMullan, “The Fly Wheel of Society: Habit and Social Meliorism in the Pragmatist Tradition,” in *A History of Habit: From Aristotle to Bourdieu*, ed. Tom Sparrow and Adam Hutchinson (Lanham, MD: Lexington Books, 2013), 229.
- 3 Friedrich Nietzsche, *The Gay Science*, trans. Josefine Nauckhoff (Cambridge: Cambridge University Press, 2001 [1882]), 193 (aphorism 339).
- 4 See Chapter One, note 72.