PLOTTEGG

ARCHITECTURE BEYOND INCLUSION AND IDENTITY
IS
EXCLUSION AND DIFFERENCE FROM ART

Architecture beyond Inclusion and Identity is Exclusion and Difference from Art
[Birkhäuser / De Gruyter](#)

Introduction by Joseph Giovannini

Plottegg: "I'm not a designer, I just change rules"

During his forty years of practice, and even as a student before then, Austrian architect Manfred Wolff-Plottegg has waged a disruptive career, deploying inversions of logic, reversals of expectations, transpositions of rules, and irresistible subversions of unmistakably Duchampian charm, all to question the field, dislocate its basic assumptions, and advance it to a fresh state of self-confrontational awareness. With scant institutional support and little company, this solitary *agent provocateur* has conducted an on-going critique of the field from its margins, creating eddies of disturbance that have disrupted and influenced the mainstream from the edges. He mounted a career of change. As he entered the field and the dialogue in the 1970s, architecture everywhere was moving toward a paradigm shift, and his research and advocacy contributed to the larger shift.

As a student, Plottegg staged events and installations that he documented photographically, one-man/single-act spectacles that echoed the *détournements* espoused by the Situationists in France to disrupt the routines that deaden daily life: his, and their, technique was to inject unexpected swerves into everyday situations to make the familiar suddenly unfamiliar. Even if professors and students were his only audience, Plottegg swerved architectural expectations, both as a matter of conviction and temperament. He was not a creature of convention but was driven by both prin-ciple and attitude.

Rooting early, his inventive and disruptive way of thinking congealed into a pattern and then a *modus operandi,* taking many forms during his career. Soon after the Graz University of Technology, he moved the art of the unexpected to galleries, museums, public spaces and into competitions, as his acts of calibrated resistance drew an audience and even a clientele. Many of his installations, interventions and speculations amounted to intellectual parables that embodied an idea or a position. The provo-cations usually elicited a smile in what were, on some level, genial versions of Ghandhian acts of passive resistance.

The pattern assumed a whole new level of seriousness when he applied his counterintuitive logic to architecture conceived on the computer. What had been disruption by concept became disruption by the new technology. He was early to the table when he theorized the computer's potential impact on the design process. The computer did not create an either/or choice between the analog and digital worlds but a both/and that bridged them.

A gentle rather than angry subversive who tended to humor rather than strident orthodoxy, Plottegg has been one of the most productive, original and serious minds of his generation, always encouraging radical ways of theorizing the field. He never proposed a totalizing manifesto that packaged a new architecture within a single idea. Early on he deployed catastrophe theory to precipitate new alignments; he used mirrors to challenge perspective, and then the computer to do the same; he speculated on randomness as a means of erasing the signature of the architect; he hypothesized a self-catalytic architecture; he looked at buildings as lenses through which to see and act in the world differently.

Plottegg saw differently because he thought differently. No single idea dominated his discourse. His continuously evolving critique kept his own theoretical positions off balance without ever coalescing into a single point of view. His parables were all about non-linearity. In a century characterized by scientific, social and political uncertainty, he eschewed the determinism of closed systems in favor of open systems, opting out of "normal" Newtonian physics that packaged everything neatly in favor of the quantum physics of Heisenberg, in which the universe is based on probabilities. He steered clear of the idea that something must last forever, including the Platonic essentialism of modernism. He has spent a career opening architecture as a system of thought rather than closing it with fixed rules, lasting truths

and single-issue definitions. Such was the intensity of his inventive proposals that they never became boxes of new constraints built around the boxes he broke.

Plottegg was a student at the Technical University in the late 1960s and early 1970s at a time when Modernism was being questioned. Modernism as received from the Bauhaus, and as it descended from Hoffmann and Loos, was being challenged—as was what Plottegg called the "fascist" systems theories of the 1960s, which separated functions to optimize efficiency. Architectural historicism was also on the horizon.

Students found themselves confronting mixed messages as they prepared for a field whose basis was being challenged and undermined. In Austria, as in many national architectural cultures, many architects and students staged installations against what was then considered the heroic Modernism of the movement's founding fathers, in what was essentially an Oedipal reaction during the 1960s and 1970s to theory that had become theology. The disputes were often mounted by small one-man practices, and they were not orchestrated but happened episodically outside any linear historical progression.

Plottegg's restive provocations occurred in the transitional period during the breakdown of an older paradigm shifting to new, as yet-undetermined ground. Architecture's collective unconscious was restructuring itself.

Plottegg staged his events at a time when Austrian architects such as Coop Himmelb(l)au, Haus-Rucker-Co, and Zünd-Up participated in a critique called Actionism *(Aktionismus),* that formed an Austrian tributary into the broader international streams of the newly emergent cultural postmodernism (not co-extensive with architecture's "historical post-modernism"). Architects participating in the devel-opment, along with artists and polemicists, initiated critiques in the form of manifestoes, installations, performances, and interventions. In Graz Plottegg was a one-man island, perhaps, but an island within a larger archipelago that stretched beyond Vienna to London and to the U.S., forming an inchoate body of protest against the status quo. Not one critique, whatever its form, said it all, but collectively the critique established an irreversible momentum contesting the received wisdom and practice of Modernism. After the student events of 1968, whose cultural effects rippled across the continent for years during politicized and radicalized times, the avant-garde de-architecturalized the reigning Modernist epistemology in order to de-structure, open and invade it. The field was atomized, redefining itself.

Plottegg, a natural radical, was a student of the *zeitgeist,* but his attitude belonged to his character as well as in his youth. Long after others defected to more conventional practices, culturally and professionally absorbed, or dropped out al-together, Plottegg persisted. Graz itself was a active nexus in the cultural and architectural debates, and Plottegg's proposals, part and parcel of the scene there, persisted long after the scene subsided. His experiments continued in Graz and elsewhere. The young Turk remained a Turk.

Intimations of architectural uncertainties appeared early in Plottegg's career when, in 1972, for a course in furniture design at the Graz University of Technology, he collapsed a bed: he set up conditions to precipitate a spontaneous breakdown "without even thinking." In the context of the architectural critiques emerging in Austria, Plottegg was shifting the subject from Modernism's emphasis on structure and function to the subject of the sensation at the moment of collapse and the aftermath. Rather than a mono-functional bed, form following function, as in a single or double, or a Hollywood "heart" bed or one that vibrates, Plottegg was proposing a hybrid bed whose unpredictable deformation would provoke unpredictable functions. Plottegg advocated collapse because it was not a reflective process determined *a priori* by expressions of language, images or theory, but by a direct and spontaneous (though somewhat manipulated) action-event. The originally neutral surface of the bed acquired, after collapsing, a diversified and intense topography that Plottegg (coyly) said could be activated by the new seating and sleeping positions its forms encouraged. He was not simply multi-plying functions, as with a Swiss army

knife, which is multifunctional (but with only one function at a time), but a hybrid bed in which different functions can take place at the same time on a topography that suggests different, perhaps new uses. "I'm not designing, I'm not thinking, I'm acting," he said, referring to the tenets of Actionism.

His beginnings, then, are highly independent and teasingly naughty, a complex attitude that has continued since. The naughtiness, however, was not gratuitous: he always pursued a point, and a serious point, in his investigations. Tellingly, with the bed, he ceded control over the outcome.

In a related installation done about the same time, *Metamorphosis of a Town Flat,* Plottegg draped a water-resistant tarp over conventional furniture in a conventional room, forming a substratum of soil for an interior terrarium. The installation recalled the work of land artists, who eschewed galleries, and the conceptual installations of artists like Walter De Maria, who did earth rooms in Germany and New York in the late 1960s and 1970s.

The term "design" derives from the Italian verb *segnare*—"to sign"—and implies the hand and signature of the artist. By allowing the bed to collapse in a purposely uncontrolled "design" process, and by foresting an interior landscape, Plottegg was abjuring design and signature, as well as Modernism's formalist mantras of point, line and plane and its ur-subjects, space, form and materials. Collapsing the bed changed the subject from form and function to concept, and from abstraction to narrative: the bed acquired content and story. Already in 1972, he was falling into the Duchampian camp that offered a critique of Modernism that differed from Robert Venturi's critique, *Complexity and Contradiction in Architecture,* first published in 1966, which emphasized language, sign and meaning. Their respective complexities differed.

There was, at the time, a larger international context for the collapse of Plottegg's bed. In the 1960s, artists were cultivating destruction. Gordon Matta Clark is perhaps the most famous of the artist/architects to take apart a found object: trained as an architect but practicing as a sculptor in what Rosalind Krauss called "the expanded field," he specialized in destroying buildings with surgical cuts, and then photo-graph-ing the results. In the late 1960s, the New York artist, Barry Le Va, dropped planes of glass from various heights in installations where the shattered planes resting on the floor were the art piece.

More locally, the Viennese architect Hans Hollein designed a series of small shops in Vienna (and New York) that galvanized the field, with tightly focused storefronts and interiors that were jewel-like in their precision, detail and unexpected strangeness. These micro-projects proved that small projects could dislocate the field and have an impact disproportionate to their size.

It is a peculiarity of Plottegg's career and personality that he dared look in places and building types that no one else had bothered exploring. Over several years, Plottegg remodeled a series of common bathrooms that he transformed into provocative theses, despite the rather tight quarters and unexpected venues. That they were bathrooms, with toilets, was part of the rub, part of the frictive environment of Duchampian thought.

In the first, done in 1982, Plottegg tiled a bathroom in black and white stripes angling in different directions, setting up a conflict of directions and vectors: the room zigged this way, then that, then in another direction. The washbasin was set up in a corner, off the orthogonal, and an angled, leaning, segmented glass wall adjacent to the tub further contributed to a spatial conflict that verged on unintelligibility. The optics denied any vanishing point in this otherwise long, orthogonal room, and basically brought the background forward. Still, the bathroom functioned, even after losing spatial coherence: it was no less efficient or sanitary, but the optical manipulation of the zebra patterns ushered it into the world of ideas.

In his next bathroom, *For K. Schwitters,* Plottegg brought spatial confusion to a frenzy by angling mirrors, some shaped in forced perspective, which in their totality created a fun-house effect of compounded illusions. Whereas Schwitters fragmented the object, Plottegg fragmented space, which was no longer a whole. "Here no form follows function," he says. "By removing the right angles and destroying the parallelism of the walls, you can no longer make out the shape and size of the room." It was his first Deconstructivist work.

A year later, in 1984, he took the fringe that normally sways like a hoola skirt in a car wash and adapted it to the top of a helmet so that a motorcyclist wearing it resembled a Roman centurion. He then took it to the rear window of a car, and then to a bathroom where one fringe hid the toilette and others closed the door: a different kind of body was being washed in a different context. The meaning of the fringes migrated, depending on context. He would later elaborate on this idea of changing meaning and function when, on screen, building parts floated in his computer as they took on different roles, depending on their scale, position and context.

The rule, or algorithm, was to take something with a specific use in one context and transpose it to another. Algorithms were simply rules that worked in the analog as well as the digital worlds. The idea of transposing contexts became a poster image many years later when he tapped into the issue of extreme sports by photo shopping himself ironing his own pant leg in the context of a steep Alpine cliff.

These small speculations, done in the privacy of domestic bathrooms, would see a more public expression when Plottegg realized an installation for the Austrian Railroad in 1983 to redesign the long, narrow interior of a rail car. Deploying mirrors at angles and setting them among angled walls, Plottegg broke the dominating linearity with angled views that scrambled the space and virtually widened the car, now transformed into a Kurt Schwitters environment on wheels. In a concrete exercise in the phenomenology of perception, he reshaped the normally long, narrow space.

In the bathrooms and then the railroad car Plottegg deployed simple design moves to create a non-linear, multi-directional space that did not add up to the Renaissance wholes created in the perspectival world of his architectural ancestors. These three bathrooms broke the normal conventional understanding of orthogonal space and ushered space into a relativity of parts in shifting relationships.

Destabilizing the space, setting it into relational movement as the user walked through space, amounted to a disruption of architecture's foundational presumption of framed, static space.

In these small self-initiated projects for himself and friends and then for Austrian Rail, Plottegg challenged not only the wholeness of Renaissance space but also the permanence of structure, spatial integrity and even meaning. Unlike most Modernists, he was not boiling meaning down to a single and immutable thing: he was not a Platonist of space, not an essentialist. He multiplied possibilities beyond essences. Back in 1983, he already set spaces off into a new building block of uncertainty, long before Deconstructivism had become a word.

Many architectural commissions start with an existing building that must be renovated or otherwise transformed. Plottegg has worked on many commissions that involve existing structures, but rather than simply treating the brief narrowly, he often conceives of the building as an *objet trouvé,* to be transformed with a concept and not simply to be "improved." Duchamp worked with urinals; Plottegg worked with bathrooms; in larger projects, his conceptual interventions transform the building, changing the subject from function alone to function wrapped in a concept wrapped in a joke. Form and beauty are not the issue. He elevates the commission to another level.

In 1988 Plottegg, in collaboration with Andreas Gruber, was given the commission to renovate and revitalize Trautenfels, an imposing baroque palace set on a base of ramparts in the district of Liezen in Styria, a state in southeast Austria. The castle had belonged to the Styrian Youth Hostel Association and was being converted into a museum. The masonry structure, as a given, was a massive, immoveable object, with vaulted interiors and notable Renaissance and Baroque frescoes painted in some of its grand chambers. Plottegg's strategy was punctual, to create interventions at strategic points, as though "treating" the heavy building by acupuncture. In the context of the heavily restored interior, the sum total of all his interventions was to give the imposing castle a new spirit of levity and to re-contextualize the building through his interventions. He was finding new urinals to sign.

In the main entry hall, with massive arches and vaults springing from thick pillars, Plottegg immediately set his agenda with a reception desk that destabilized the space with illusion. Projecting the diagonal form of a propeller from crossing vault lines of the ceilings above, he constructed a soffit that he

turned and duplicated below at the reception desk, all of it veiled by planes of sliding glass set at an angle that faintly mirror the surrounding space. The scissoring angels of the desk and soffit above are, in combination, difficult to grasp, unintelligible at a glance but mesmerizing. They set a new, lighter, transformative tone and disruptive agenda for the whole castle as one enters: the design does not deliver the shock of a Surrealist, out-of-place image but the less confrontational approach of an anecdotal environment of individual moments that do not add up to a totalizing look or concept.

Downstairs, Plottegg, the master of bathrooms, set urinals directly against the rough bedrock walls of the underground rooms, the jagged rock contrasting with the smooth forms of the white porcelain fixtures. A floor-to-ceiling mirror set at an angle adds an element of spatial confusion by reflecting the ceiling and upending the space. A half-dozen rolls of toilet paper are arrayed on the wall of the toilet chamber, all out of reach from the toilet. Sliding glass doors with jagged edges were designed to part and then come back together in a perfect fit. Likewise the wavy edges of the sliding glass exit doors pocket into each other's curves perfectly when closed: apart, they look untamed. The two doors are bracketed by two truncated flights of stairs that dead-end in a low-flying ceiling vault, staircases to nowhere. Symmetrical and well behaved, if absurd, they are a comment on the dubious logic of symmetry so often blindly applied.

But perhaps the most disruptive and character-changing intervention is at the entrance, where instead of hinging the pair of doors on the sides of the door frame, Plottegg hinged the doors at the floor. In this case, however, each door is half a staircase, and when the two pivot up into position, their steps mesh forming a solid double "French" door. Plottegg changed the rule, or algorithm, of the door: the swivel axes are horizontal instead of vertical, and the doors form stereometric bodies instead of flat door leaves.

Plottegg documented it all with cameras fixed according to another change of rules: he attached cameras to movable components. Instead of a camera held by a photographer by hand or on a tripod, he taped cameras to the parts of the building that move or swing, such as the entrance door, the edge of the toilet seat, the handle of the door, and the elevators. The point of view by which the building is "seen" was completely displaced from the user, breaking the hold of perspectival expectation on the eye in favor of unexpected viewpoints that challenged and changed the understanding and experience of the space.

Not only did Plottegg conceive buildings differently. He perceived them differently. He was dislocating architecture's foundational principles, the perspectival point of view, with the cone of vision emanating from the viewer. But he went about it "mildly, lightly, unimportantly," as Duchamp once said of his attitude about making art.

All these interventions added up to a transformative commentary that lightened the character of a prepossessing, rather self-serious building with a heavy history. The building acquired a new energy. But besides their quizzical and quietly humorous character, the interventions undercut the agenda of stability and the aura of authority of a governmental structure. Plottegg's interventions destabilize space, form and symmetry. The desk, sited between the scissoring forms of the propeller above and below, question space caught in a moment of sheer, an effect enhanced by the filmy veils of glass. The mirror in the bathroom upends the otherwise ordered space in the room. The double French doors at the entrance pivot on a diagonal through the classically decorated and vaulted arcade, and challenge the surrounding static orthogonal order not only by their geometry but by the very fact that they move in an unexpected way. He loosened the hold of geometric authority on a building so that it was no longer controlling. His techniques of destabilization released the totalizing effects of architecture. For Plottegg, the solution was hyper-function: the new stair/doorway into the castle blurs functions in a hybridization that compresses the functions into a surprise.

Plottegg had theorized hybrid architecture in a series of studies in which he did perhaps the first morphing in architecture, in which he fused one image with another to create a third. Although morphing became a popular and even common digital technique by the 1990s, Plottegg developed the idea through manual systems at first in 1981, and then digitally. Plottegg advised anyone to consider any

plan or any object, that is, any *ready-made,* as a candidate for a morphing operation. Whatever the input, the data could be radically transformed through its interaction with other data.

At first he hybridized his *ready-mades* manually, taking, for example, radial distances from a central point in a house and a cow to map an average distance in a fused, or morphed, object. Whether using Cartesian or polar coordinates did not matter because the rule or algorithm could be arbitrary if it was systematically applied. What mattered was that the unpredictability of the result, which was released from authorial control. For Plottegg the iteration with the maximum deviation was the new design.
He soon hybridized *ready-mades* on the computer screen because, he said, "the manual techniques were too boring and time-consuming, so I turned to the computer." Hybrid-i-zing via a digital algorithm was swift and elegant. The computer generated hybrids resulting from the data input of analog drawings such as Corbusier's *Modulor* and a Thonet chair, or the floor plan of an apartment and the map of Austria.

Plottegg's turn to the computer was early and decisive. He was fusing the disruptive power of asymmetrical conceptual thinking to the disruptive capacity of new technology. He was one of the few of his generation to embrace the computer holistically, not just as a drafting tool.

Early on, starting in the 1980s, he theorized how screen space and computational logic affected how architecture could be actually conceived rather than just drawn. Most architects using the computer predicated its use as a drafting table and parallel rule, as though they were still manipulating instruments by hand. Conventional software was designed to "paint" realistic representations, complete with shadows, light sources and surface reflections. He understood that software was overlooking the potential of the computer itself, and that the computer had a logic and capacity beyond its ability to draft and represent.

Plottegg reasoned that if the science of perspective once revolutionized architecture, the logic of the computer dislocated the perspectival understanding of space within a revolution of its own. "With computers, we don't have rules—contrary to hand-drawn drawings, the computer has no scale or meaning and lines don't have functions." So-called solid geometry cedes to fractal geometry and to the fluidities of screen space. Data in a computer can generate a picture or numerical lists or binary lists; they can even be translated into music. Pixels transcend disciplines. Forms depicted on screen are understood by the computer as bits, and so become detached from the content of the representation information. A house and a cow lose their "content" in a computer that sees no problem conflating cow and house because it does not distinguish apples from oranges. A new hybrid form owes nothing to figurative identity.

The computer liberated the architect from conceiving and assembling a building by analogue, detaching the image from the referent. Data are not analog.

Plottegg was maintaining that the data on screen are neither an architectural drawing nor a model, but detached from the "reality" usually depicted in a re-presentation. The shift from analog to digital procedure dislocates 2000 years of Vitruvius. "If you use the computer as it wants to be used, computers don't have taste, and they can't make historical comparisons," he said. Plottegg's use of the computer amounted to a declaration of independence and of resistance to established theory and practice.

In 1988, Plottegg, in association with Christoph Zechner, conceived the *Binary House* for a competition called *The most beautiful house in the world.* He deconstructed two 3D data sets, a house and a kindergarten, by morphing and mixing them with other data sets, so that bits and pieces exploded on screen into a constellation of parts without a site, plan or point of view: the parts no longer constituted a whole. Perspective was obsolete. Elements were no longer standard. They had no name or size. Morphing and mixing had opened the systems of each data set, dissolving the internal logic of the system so that the components were open to interpretation. Any two binary lines are devoid of content. The lines have no name or function. For Plottegg the computer had obsolesced static models of architectural

production, emancipating design from function. The environment on screen was completely open to interpretation—or, as Plottegg said, "autocatalytic and algorithmic, quick and dirty."

By the time of the *Binary House,* literary deconstructionists had already theorized that the relationship between words and meaning was loose if not indeter-minate, and Plottegg was postulating the same between images on screen and their referents: his computer detached them, separating the signifier from the signified. The conventions of architectural drawing no longer obtained, establishing the syntax that fixed parts in a relational meaning. Liberated from representation, the parts floated like free radicals, free to bond. Two closely spaced parallel lines may not indicate a wall, for example. Grids and patterns, similarly, have no set meaning. The lines or planes signify nothing—they are simply strokes on a screen. "Because they are not signifiers, because they are not charged with meaning, they are easy to manipulate and manage in any combination. Lines are nameless, and therefore devoid of architectural function," he said. If some architects were taking the fundamentalist position that architecture is, and should be, based on established typologies, and that the parts of a building—its windows, doors, lintels— also play known roles in fixed hierarchies of parts, Plottegg was instead taking it all apart, freeing the parts into orders emergent on screen.

The shards, lines, triangles, wedges and other forms of his *Binary House* reconfiguring themselves in a directionless, anti-gravitational environment suggested endless configurations in endless variations of houses. The parts are released into an indeterminate state without preconception and predetermination. Conventions of architec-tural drawing or even "language" no longer govern the screen. Many interpretations of the data are possible, none correct or incorrect. "We are in the field of a new relation-ship of form and information," in an interpretative environment without a single, fixed point of view. The screen delivers the pivoting cameras in the Trautenfels Castle to the architect at his desk.

In the dynamic environment of the computer, with on-screen zooming and shifting, "South and hell are no longer down below," he says: the process eliminates direction and boundaries. Converging lines, for example, no longer signal three-dimensional depth; they might be the edges of a flat plane. The accidental forms of the *Binary House* result from the shift in paradigm from analog design to interpretative interaction, from pictures to what Plottegg calls "blottings" that are suggestive rather than deter-ministic. The architect need only ascribe dimension to the drawing. Designating a line one or five meters long starts an interpretation of all the other lines and shapes.

When he commands the computer to sort elements out by dimension, material or even price, or presses commands like shift, cancel, stretch, deform—"hacking around," says Plottegg—he is using the computer as he had mirrors and illusionistic graphics to deform real spaces. He launches the screen and space into a liberating instability. Destabilizing the canvas breaks the architect's usual control over design, not to mention the relevance of fundamentalist typologies and conventions, making the process unexpected, disjunctive, and unpredictable.

This interactivity produces what Plottegg calls "a cornucopia whose main feature is complexity." Plottegg challenged the omniscience of the human eye in his work on Trautenfels Castle, and similarly, his use of the computer removes the "aesthetic eye" of a designer and allows a greater level of complexity in what becomes an on-screen system of probabilities. The designer still has the power of manipulation by varying the probabilities, but in an open system, the element of chance still plays a dominant role in determining the form of the outcome. [From *The Double Arrow, Architecture of Becoming,* architectural flier, 1992] Plottegg's counterintuitive goal, he says, is "to get the computer to design the project for me."

From his early investigations, as in the *Collapsed Bed,* Plottegg's *modus operandi* was to open closed systems, whether systems of thought or building systems. He avoided design determinism with a variety of techniques that he invented or developed, in-cluding morphing, estrangement, deviation, inversions, irony, swerve, optics, visual deconstruction, virtuality, dislocation, algorithmic inversions. But the computer brought his investigations and speculations into open systems to a whole new level of potential.

In one of many exhibition installations, *Hyper-Hybrid Architecture Generator,* of 2008, at the Vienna University of Technology, he devised a new sort of *camera obscura,* or *camera illuminata,* in which a viewer standing in front of a screen displaying a field of constructive elements (similar to the floating field of unnamed parts of the *Binary House*) projected the viewer as an avatar into screen space, or into virtuality, where the viewer via the avatar could experience the environment and act on, and within, its elements, which formed an inchoate but navigable environment.

It was a brilliant realization of the moment in William Gibson's *Neuromancer,* when the protagonist stepped into the screen in front of him, into cyberspace. Plottegg however did it outside the realm of fiction in a real-life exhibition at the Biennal de Arte Contemporáneo de Sevilla that hypothesized the fungibility of real and virtual space. The installation summarized in a single show the efforts that Plottegg had been making since the time of his bathroom installations, at eliding real and virtual spaces. The computer, however, upped the ante: it emphasized the notion of cybervirtuality, and he had been making efforts at merging the spaces in a continuity, lifting virtual space off screen into real space and projecting the viewer from real space into virtuality. It was possible to cultivate and occupy the blur. He had left the perspectival world of analogs far behind.

Hyper-Hybrid Architecture Generator was the culmination of a long series of installations in electronic media, starting in 1969, when Plottegg submitted a competition entry for *Architecture and Freedom,* in association with Hartmut Skerbisch, in the Graz Kunsthaus. Opening the definition of the environment to include transmissions by electronic media, even from far away, as well as "things hugging the skin," Plottegg set up a multi-media environment that included two TV cameras and two TV picture tubes, loudspeakers for broadcasts, a slide projector and fine-meshed screen, plus two glass panes, one reflective and the other transparent. There were physical things, like the mirror, and then transmissions from the outside; the installation mixed real space elements with virtualities coming in. The text on the mirror spells James Joyce's
cryptic, verbally Cubist phrase, "Put allspace in a notshell."

Plottegg had created a mediated environment, with images and sounds projected and televised from near and far that was no less physical for being electronic. Images unrelated and unhinged from the immediate environment were nested within it, related to each other in a web of facts that constituted an informational environ-ment. The mirror and glass panes were optically ambiguous enough to doubt space. Like Joyce, fitting the universal ("allspace") in a nutshell, Plottegg encapsulated an image of a group of people sitting on a saturnine wheel under a cosmic cloud within a nutshell propped open by the VHS cords (the group shot was the LP cover of Blue Cheer, the loudest rock band at that time). He had miniaturized the cosmic and perhaps universalized the miniature, conflating micro- and macro-environments within an electronic parable into which visitors could venture. Virtuality for Plottegg is real—conceivable and buildable. The installation referred obliquely to black holes, Einstein, Henri Bergson's theories of time and duration, and Marshall McLuhan's riffs on media. The preciously conceived installation, now historic, was re-installed in a very elegant update in the Kunsthaus in 2012. It had been a prescient marker in contemporary archi-tectural history.

Plottegg continued exploring the continuity between "reality" and virtuality in subsequent installations. "Virtuality is real," he says. "It's concrete. Sometimes reality is virtual." For Plottegg the two are conflated. In 2002, Plottegg explored the *Hyper-Hybrid* idea in a greatly expanded installation, *The Web of Life,* at a very appropriate venue for the subject, the prestigious Karlsruhe Center for Art and Media, itself conceived as a latter-day Bauhaus to absorb the new virtual machine and its digital world in a post-mechanical, post-modernist culture.

Plottegg conditioned the environment by doubting its physics, creating spatially indeterminate, curving, invaginated spaces without apparent end. The amorphous form of the installation, completely covered with a fitted carpet, deprived the visitor of visual orientation.

The undulating walls in the darkened and disorienting environment served as screens for the projection of digitally produced images, akin to the abstractions of the *Binary House,* a floating environment of lines and planes and clouds in which visitors, some of them filmed and projected on

screen, wandered like avatars in their own reality. Scans of the inner space were beamed onto the outer skin with the fitted carpet. The projections represented multiple manifestations of the web, some in 3D (to be seen with 3D glasses).

Within the installation, black cables could not be seen in the darkened environment, and while visitors navigated the environment of cables projected on undulating walls, they bumped into the real cables they could not see, in a case-study, real-life reversal of the definition of real and virtual.

In another part of the installation, Plottegg erected a tensegrity structure of metal cables and compression struts supporting within its elegant web two-sided screens and cameras projecting images of the same environment in a *mise-en-abîme* of virtualities nested in realities nested in virtualities. The installation is based on real-time human perception of space and the discourses on the shift from Euclidean geometry to the not-quite graspable and locatable virtuality of cyberspace. Orientation is indefinite, and shapes are irrelevant, the distinctions between outside and inside misleading. Projected images weaken the corporeal presence of the surfaces on which they are shown. Information floats, detached from the objects that carry it. Visitors walked into a built and projected parable of virtuality and physicality blurred.

"I'm not a designer," says Plottegg. "I just change rules." For Plottegg, a basic problem in architecture involves architects with a "signature," the so-called "handwriting" of the office, which the architect applies across commissions, whether for a church, office building or house. Plottegg's one self-interdiction is what he calls self-similarity, the repetition of a signature across projects and building types. In addition, he criticizes the self-similar results of white-cube modern architecture, which follows certain rules, as does Otto Wagner's Neo-Classicism, or even Czech Cubism. He credits Deconstructivism with deconstructing the rules of architecture, citing his compatriot Wolf Prix of Coop Himmelb(l)au, for example, for making structural members thin in compression and thick in tension, rather than the reverse: Prix inverts the normal rule, generating a non-normative architecture. "Deconstructivists deconstruct the rules of architecture," Plottegg says.

He notes that inversions are just one technique, and in any case, the techniques differ between analog and digital processes. Rules can be changed more easily in a computer, with immediate consequences.

In his own practice, if one of Plottegg's drawings looks like a Lissitzky, he discards the drawing because, however flattering and erudite, he believes the result can, and should, be new: "If you are still applying the old rules, you cannot be creative and do something new," he says. "You don't even have to think about it: you just change the algorithm, whether it's analog or digital." Changing the rule is independent of the input. At Trautenfels Castle, he changed the rule for a door from being a flat plane to a stereometric form, and changed its axis of rotation from vertical to horizontal. Changing the rules can trigger unexpected results and a self-catalytic process because they are not controlled by the omniscience of an architect. Changing the algorithm in the computer, however, replaces an anthropocentric process with an external, automated process that does not carry an individual signature, and it also unplugs architecture from traditions and meanings carried over in memories embedded in traditions that involve the hand and perspectival eye. "The hard drive obsolesces the linear, singular and visual logic of orthogonal projects," he says. Plottegg notes that changing the rules in the computer is more easily done than "in your brain or behavior." In the computer the variations and sheer quantity are greater than in analog design.

Like a theoretical physicist, Plottegg has conducted experiments throughout his career with his installations and exhibitions. Sometimes he just produced specula-tions, such as proposing in a sketch that pencil lead buried in an eraser would produce a scribble when used to erase: the simple mechanical substitution replaced linear thinking with non-linear accidentalism.

But in the architecture office in Graz, which he has maintained over the decades, he has applied his own discoveries like an applied physicist to the design of real buildings. The application of his theories is perhaps more obvious when he renovates a *ready-made*—a "found" building—with an

installation that transforms its nature, such as the installations he designed for Trautenfels Castle. But Plottegg has also applied theory in many ground-up projects, including the usually no-nonsense commissions for designing public housing, with their strict rules and strict budgets.

For a competition for an urn cemetery in Graz in 1985, and for another in Linz in 1999, Plottegg used the random function of the computer to distribute pixels, or graves, on the site, simulating the free selection of locations according to participatory processes. Instead of predetermining the layout of the cemetery with axes or a grid, and building the whole infrastructure before the placement of the urns, Plottegg reasoned that it was actually more practical to open the plot, and the system, to free choice, so that the first urn is placed here, the second over there, in a simulation of randomness that would eventually accommodate 5,000 urns. With each urn represented by a pixel, the pixels form a web that generates walkways and infrastructure. As the numbers increase, the random locations coalesce into a field of dots that self-organize into a self-determining network in an emergent landscape. In a process that resembles the build-up of lines in a drip painting by Jackson Pollock, the cemetery gradually fills in, obeying a subliminal order that is non-linear and non-Euclidean, but rational per the ratiocination of a digital process based in the pixilation of the screen and field. Plottegg's system is ordered within its apparent disorder.

Also in 1985, for a competition for the RESOWI Center at the University of Graz, Plottegg and his collaborator Martin Zechner studied the space allocations of the institute by scripting the computer and changing the parameters, producing a random distribution of spaces in the 500-room building, resulting in lines that look like tracings of dice thrown in a game. Scripting at this time was a little-known technique rarely applied in architecture, and Plottegg's tactics of random proportions, random distribution and random spatial rotations, generating geometric and functional progres-sions, produced an overall fractal complexity. The wire-frame renderings of the submission panels show the project with x-ray transparency, unusual for the time; its multi-perspective array of images graphically conveys the underlying spatial complexity of the project.

RESOWI was historically precocious, an early and important work of Deconstructivism *avant la lettre* that used a digital logic to arrive at anti-formalist con-clusions similar to those proposed by Zaha Hadid, Peter Eisenman and Plottegg's Austrian compatriots Coop Himmelb(l)au, but by different logics. Plottegg arrived at the position early.

For an architect who eschewed the very idea of the architect's omniscient control over a project, the computer offered the perfect aleatory escape from the notion of design as it descended from the Renaissance. It challenged signature; it even challenged the planimetric prejudice of paper. Concerning the *Seiersberg Housing Development* project of 1987, a built social housing project done in collaboration with Christoph Zechner and Fritz Mascher, Plottegg said, "My goal was to get the computer to design the project for me." He notes that Mozart made compositions with dice, and therefore randomness. Plottegg developed the design on the screen interactively, using commands such as "insert," "shift," "stretch," "setvar," "double," "dynamo," "donut," and "cancel" to morph multi-colored and structural pixel arrangements into the by-now familiar randomized field of abstract elements that he first generated for the *Binary House:* Plottegg "reads" the random lines and what he calls "blottings" to interpolate the site plan, floor plan, section and elevation from a drawing that conflates all spatial dimensions on screen (a technique distantly related to his *Collapsed Bed* when everything came together in the fall). The design for the housing is latent in the computer-generated drawing, and he teases and "lifts" the plan out of the graphic field by assigning scale and definitions to the parts, by "looking for what I need." He finds the necessary elements in a drawing that acts as a chest of parts.

If the built result looks crisp and clean, like an artifact of industrial Modernism, it is because one of the parameters factored into the computer and the design process is the list of rules required for standardized housing by the client, a state bureaucracy. He achieves a near zero degree of design, if "design" is intended to mean "signature." But the repetitive and cellular nature of the units forming housing blocks is not a conceptual problem for Plottegg, since in this and subsequent housing projects he treats the blocks as a readymade that he recontextualizes with interventions so subtle that they escape

the vigilant eye of the bureaucracy. The façade of balconies carries metal struts, apparently structural but without clear function, some configured in a truss that echoes a classical cornice line. A stairway to a second floor is detached from the building, free-standing, leading to nowhere.

In the *Eybesfeld Castle Housing Project* of 2003, he positioned storage cabinets in the "one-bedroom" units to maximize openness. Doors attached to the cabinets, left unswung, keep the units open, like lofts, but swung together, the doors divide the loft-like spaces into a conventional layout of living room and bedroom. The doors create a participatory environment that allows the occupant to determine the interior configuration. Plottegg believes that a plan should be left "half-done," for the client to finish. Real spaces, like his screen, are participatory, inviting interpretation. The play of swinging doors recalled Duchamp's famous door that pivots on its hinges to close either the kitchen or the adjacent bathroom: one door, two rooms.

At Eybesfeld, the scaffolding hanging from the façades' balconies suspends louvers that give the units environmental controls that help shade and protect the apartments. In one apartment block within the project, Plottegg expands the metal scaffolding into a spatial trellis that accommodates not only balconies but also plantings: the entire architectural façade disappears behind a forest of wisteria. Inside the units he dynamizes the living spaces with angled walls that separate the front of the apartments from the back.

In his decades of asymmetrical practice, Plottegg has sustained a high level of intel-lec-tual enquiry, speculating in territory well beyond polite discourse and established conven-tion. His serial disruptions constituted a critique that was charismatic and incisive—and difficult to ignore. The dislocating speculations of his practice, every project a thesis, either anticipated or confirmed the challenges brought by his spiritual colleagues, the Deconstructivists, to reposition a field which they have redefined together, permanently shifting architecture's bases of practice.

Plottegg did not simply tease the center from the margins in a trivial pursuit of *frisson,* but brought serious intellectual challenges that could hardly be dismissed. He grafted his conceptual challenges in the analog world to his work in digital design, fusing two critiques into a powerful driver of change on the Austrian and European fronts. He lifted cyberspace out of the computer into "real" space, in a reciprocal two-way transreality between the physical and virtual. He created environmental installations that were wildernesses of transparency, reflection and physical fact, the real and virtual positing together a new type of very liquid space and experience.

He has been disruptive not for the sake of disruption, but for the sake of progressive change, forging a vector of his own into and through architecture's new potentials.

ARCHITECTURE UNBOUND

JOSEPH GIOVANNINI

A CENTURY OF
THE DISRUPTIVE
AVANT-GARDE

TRANSGRESSIVE
OBLIQUE
ABERRANT
DECONSTRUCTED
DIGITAL

MANFRED WOLFF-PLOTTEGG

EXTREME ARCHITECTURE

Practicing in Graz, Austria's second architectural city, Manfred Wolff-Plottegg became, from the early 1980s, a one-man epicenter of nearly all the issues of the alternative architecture practiced by the more visible avant-garde. Largely by instinct, osmotic cultural absorption, and sheer contrarian inventiveness, he achieved what others learned through Heidegger and Derrida. During his forty years of practice in Graz, an active nexus in the cultural and architectural debates, and even as a student before then in the early 1970s, Plottegg waged a disruptive career, deploying inversions of logic, reversals of expectations, transpositions of rules, and irresistible subversions of unmistakable Duchampian charm, all to question the field, break open its basic assumptions, and advance it to a fresh state of self-confrontational awareness. With scant institutional support and little company, this solitary agent provocateur conducted a campaign of critical opposition from the margins, creating eddies disturbing the mainstream. His research and advocacy, deceptively delivered through humor as well as his breakthrough work on the computer, contributed to the larger shift occurring in architecture.

Tending to critical pranks rather than orthodoxy, Plottegg never proposed a totalizing manifesto that packaged a new architecture in a global idea. Early on he enlisted collapse (though not catastrophe theory) to precipitate new alignments; he deployed simple mirrors to fracture perspective, and then the computer to do the same; he speculated on randomness as a means of erasing the signature of the architect; he hypothesized a self-catalytic architecture.

A subversive who mixed absurdity with satire, Plottegg subscribed to no "ism" but saw differently simply because he thought differently, his theoretical positions evolving in incremental stages. As an iconoclastic student, Plottegg staged events and installations that he documented photographically, one-man spectacles that echoed the *détournements* espoused by Situationists to disrupt routine. His technique was to inject unexpected swerves into everyday situations, to make the familiar suddenly new.

After his studies at the Graz University of Technology, he moved the art of the unexpected to galleries, museums, public spaces, and competitions, as his acts of resistance drew an audience and a willing, curious clientele. Through it all, he maintained a practice.

In 1988 Plottegg was given the commission to renovate and revitalize Trautenfels, an imposing Baroque palace set on a base of ramparts in the district of Liezen in Styria, southeast Austria. The castle had belonged to the Styrian Youth Hostel Association and was being converted into a museum. The masonry structure, as a given, was a massive, immovable object, with vaulted interiors and notable frescoes. Plottegg's strategy was to intervene at strategic points, as though by acupuncture. In the context of the heavy interior, the sum total of all his interventions lightened the imposing castle.

Perhaps the most character-changing intervention at Trautenfels was at the entrance, where instead of hinging the pair of doors on the sides of the doorframe, Plottegg hinged them at the floor. In this case, however, each door was half a staircase, and when the two pivoted up into position, their

steps meshed, forming a solid double French door. When open each half was a staircase to nowhere. Plottegg was not designing but changing the rule, or algorithm, of the door: the axis of swivel was horizontal instead of vertical, and the doors formed stereometric bodies instead of flat door leaves. (FIGS. 474, 475)

In the main entry hall, with arches and vaults springing from thick pillars, Plottegg introduced visitors to the castle by destabilizing mass with illusion, the first of many interventions that were like stations of a lighthearted cross spotted throughout the castle. Abstracting the form of a propeller from the straight lines of the vaulted ceilings above, he suspended a propeller-shaped soffit over the reception area and duplicated the form in the counter below, each form mirroring the other, but in reverse. He heightened the quizzical pair by angling glass partitions off the propellers, generating ghost images of the vaults. The scissoring angles of the desk and soffit above were, in combination with the glass reflections, difficult to grasp at a glance, giving the impression that the desk, which was really an installation, was scissoring space like a pair of shears. The configuration set a new, lighter, transformative tone for the whole castle at an introductory moment. (FIG. 476)

Shortly after the museum opened in 1993, Plottegg filmed the building for a competition, "Videos in Architecture," with cameras fixed according to another change of rules. He attached cameras to the parts of the building that moved or swung, such as the entrance door, the edge of toilet seats, the handle of the door, and the elevators. The point of view by which the building was "seen" was completely displaced from the user, breaking the hold of perspective on the eye in favor of unexpected viewpoints that changed the understanding of the space, and challenged the assumption that the eye and the camera are objective. Like Peter Eisenman at the Wexner Center— but lightly—he was dislocating architecture's foundational principles, the perspectival point of view with the cone of vision emanating from the viewer.

FIGS. 474, 475 (OPPOSITE) In 1988, remodeling a former Austrian palace, Trautenfels Castle, into a museum, Manfred Wolff-Plottegg reinvented the double door at the entrance. With Dada-like insouciance and a simple shift of the hinges from the doorframe to the floor, he transformed the usual double door into a kind of drawbridge that pivoted vertically rather than horizontally. He expanded each door leaf into a stepped volume, and when shut, the leaves close the doorway, the steps zipping together. Open, with steps leading to nowhere, they add a dimension of absurdity to the entrance of the stolid masonry building. © Manfred Wolff-Plottegg

FIG. 476 At the reception desk of Trautenfels Castle, Plottegg introduced a mirage of reflections into the entrance hall of the Baroque palace. Angled glass planes and turning forms of the desktop morph the ribs of the vault, setting the orthogonal interiors into perceptual rotation. Spatial indeterminacy dissolved the structured space of the conventionally shaped room. © Manfred Wolff-Plottegg
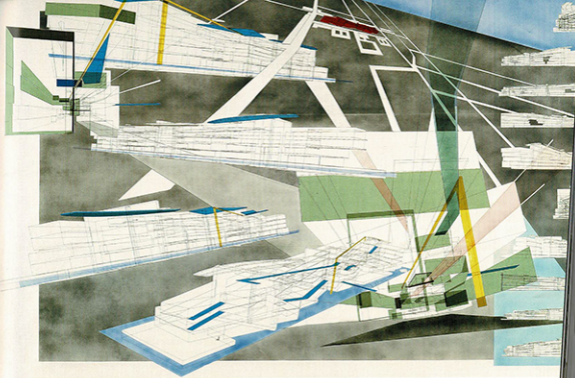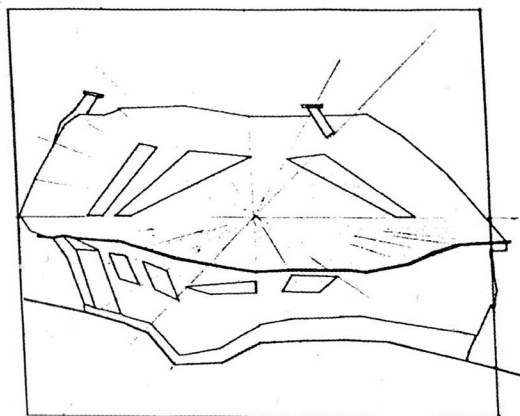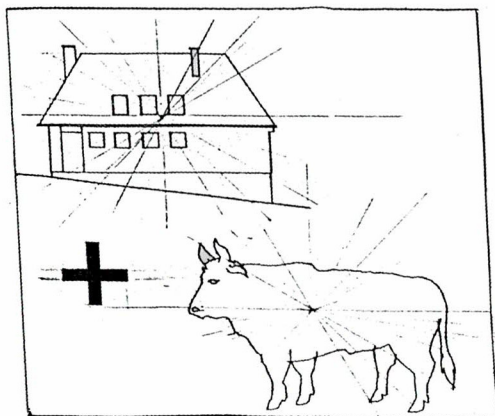
FIG. 478 Plottegg presented his 1985-competition design for the ReSoWi Library at the University of Graz as a collage of wireframe drawings pasted on an airbrushed overview of the site and city. The seventeen views give a rotational view of a five-hundred-room building whose complexity, inside and out, resulted from a digital design process scripted for a random distribution of spaces. ©Manfred Wolff-Plottegg

design on the screen interactively, using commands such as "insert," "shift," "stretch," "double," "dynamo," "donut," and "cancel" to morph multicolored and structural pixel arrangements into a randomized field of abstract elements: Plottegg "read" the random lines and what he called "blottings" to interpolate the site plan, floor plan, section, and elevation from a drawing that conflated all spatial dimensions on-screen. He teased and "lifted" the plan out of the computer-generated graphic field by assigning scale and definitions to the parts, by "looking for what I need." (FIGS. 398, 480)

In the dynamic environment of the computer, with on-screen zooming and shifting, "South and hell are no longer down below,"[49] said Plottegg: the process eliminated direction and boundaries, and any reference. Converging lines, for example, no longer signaled three-dimensional depth into a picture plane; they might be the edges of a flat plane. The architect needed to ascribe dimension only to the drawing. Designating a line to be 1 or 5 meters long started an interpretation of all the other lines and shapes. The designer himself could initiate this dialogue, for example, by inputting information on the ideal villa or ideal city and commanding the computer to sort out rooms or streets by size, materials, or prices of materials by "hacking around"—by punching commands, as he did in the Seiersberg Housing Development project in 1987. He launched the screen and space into liberating play.

Plottegg's turn to the computer was early and decisive, and what had been disruption by asymmetrical thinking became disruption by the new technology. One of the first to theorize the computer's potential impact on

the design process, he was among the few of his generation to treat the computer as more than a drafting tool. Plottegg reasoned that if the science of perspective once revolutionized architecture, the logic of the computer dislocated perspective with a revolution of its own.

Reconceptualizing the use of the computer in architecture, Plottegg pushed it beyond the imitative and pragmatic. In the 1980s, most architects predicated their use of the computer as an efficient stand-in for a drafting table and parallel rule, as though they were still manipulating instruments by hand. Conventional software was designed to "paint" realistic representations, complete with shadows, light sources, and surface reflections. Plottegg understood that existing software was overlooking the computer's potential itself and that the computer had a logic and capacity beyond its ability to draft and represent. In Plottegg's studio, the notion of drafting shifted from the idea of traditional drawing, just done on-screen, into a process that occupied a completely different realm of understanding. Plottegg dispelled the notion that the data on-screen represented either an architectural drawing or a model.

Without subscribing to poststructuralism, Plottegg reached similar conclusions by other means. Plottegg was maintaining that the data on-screen is neither architectural drawing nor model, but detached from the "reality" usually depicted in a representation.

In a series of analog studies that were among the first in architectural morphing, he fused one image with another to create a third. He was miscegenating images, or signs, scrambling signification. Although morphing became a popular and even common digital technique by the 1990s, Plottegg developed the idea through manual systems at first in 1979 and then digitally. Plottegg advised anyone to consider any plan or any object—that is, any readymade—as a candidate for a morphing operation. Whatever the input, the data could be radically transformed through its interaction with other data, with another object.

Working manually, he took, for example, radial distances from a central point in a house and a cow to map an average distance in a fused, or morphed, house-cow. Whether one used Cartesian or polar coordinates did not matter because the rule, or algorithm, could be arbitrary if it was systematically applied. What mattered was the unpredictability of the result, which was released from authorial control. (FIG. 479)

For Plottegg the iteration with the maximum deviation was the new design. He soon hybridized readymades on the computer screen because, he said, the manual techniques were boring and time-consuming, while a digital algorithm was elegant and swift. The computer generated hybrids resulting from the data input of analog drawings such as Le Corbusier's Modulor and a Thonet chair or the floor plan of an apartment and the map of Austria. Plottegg's digitized images dissolved into each other. The ambiguous result of maximum mixtures, where lines connected the cow and house, could be understood as a new cow and a new house, a hybrid with a new figurative identity.

In morphing readymades, Plottegg anticipated Bernard Tschumi's 1981 hand-drawn idea of passing a Palladian villa through the Rietveld Schröder House, while taking it into new computational territory. Tschumi had kept the identities of the villa and the house separate and juxtaposed in his cinematic action strips, whereas Plottegg merged house and cow into a third thing. Plottegg's house-cow preceded by a decade the interference patterns that resulted when Eisenman passed different waves of influence through each other, generating interference patterns on which he based designs, and by two decades parametric design, a dynamic drafting system in which subsystems interface and alter each other: dialing up one subsystem, like the cow, meant dialing down the house in a zero-sum exercise fusing the two.

FIG. 481 For a 1988 competition, "The Most Beautiful House in the World," Plottegg and collaborator Christoph Zechner morphed two 3-D data sets and mixed them with other data sets to form an on-screen matrix of lines that had no scale, directionality, or representational content. By ascribing a dimension or use to one of the elements, they selected parts and inflected them with dimension or possible use, starting the digital construction of an on-screen structure, the Binary House. Using an open, changeable design system based on fungible data, they conjured buildable elements from indeterminate lines and figures.
© Manfred Wolff-Plottegg
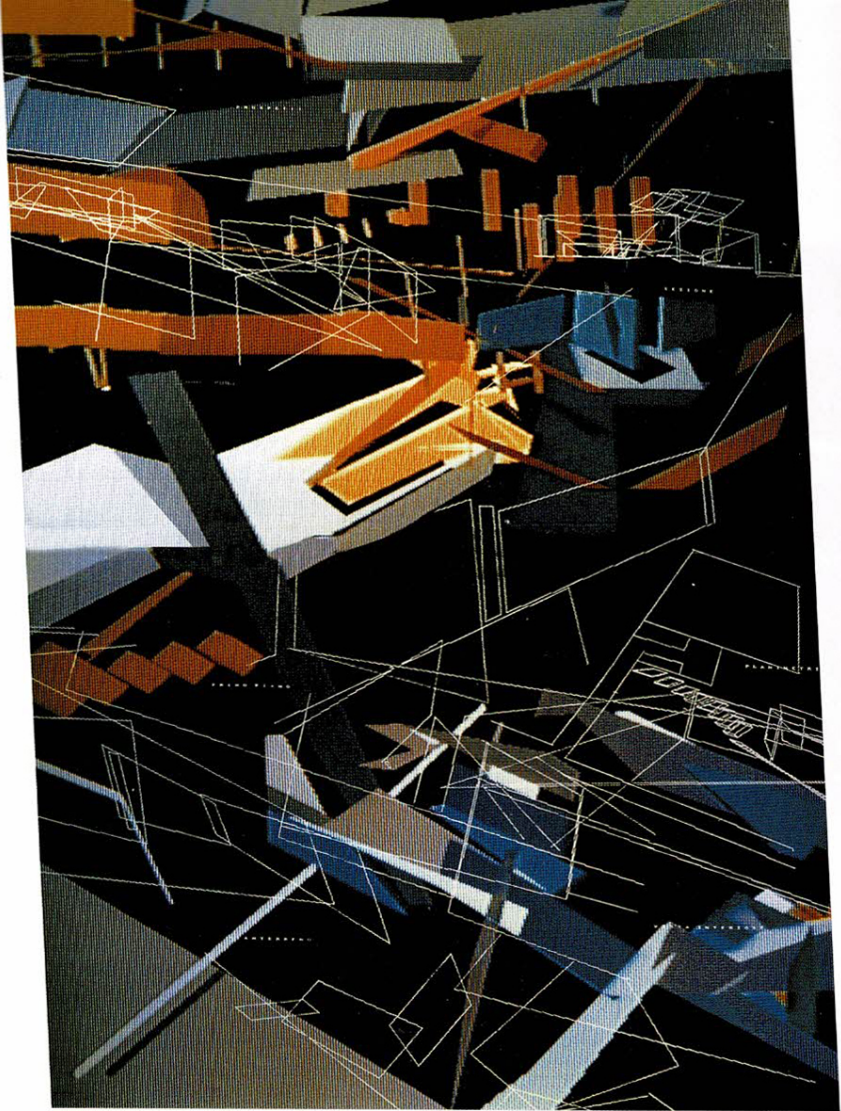
By the time of the Binary House, poststructuralists had already theorized that the relationship between words and meaning was indeterminate, but Plottegg's process was even denying the existence of the sign, since there was no signifier for a signified. The parts floated like free radicals, free to bond. "Because they are not signifiers, because they are not charged with meaning, they are easy to manipulate and manage in any combination. Lines are nameless, and therefore devoid of architectural function," said Plottegg.[844] In a screen space beyond architectural language, the conventions of architectural drawing no longer obtained.

If some architects were taking the fundamentalist position that architecture is, and should be, based on established typologies, and that parts of a building—its windows, doors, lintels—also play known roles in conventional hierarchies of parts, Plottegg was instead taking it all apart, dissolving even the parts into particles on-screen. Plottegg did not take kindly to the regressive Venice Biennale *Fundamentals* exhibition that Rem Koolhaas had curated in 2014 as a catalogue of architectural parts that found their place in various architectural taxonomies.

The shards, lines, triangles, wedges, and other forms of his Binary House reconfiguring themselves in a directionless, antigravitational environment suggested endless configurations of house variations. The parts were released into orbit. Many interpretations of the data were possible, none correct or incorrect. "We are in the field of a new relationship of form and information,"[845] he said, in an interpretative environment without a single, fixed point of view.

Plottegg had challenged the omniscience of the human eye with his pivoting cameras at Trautenfels Castle, and similarly, his use of the computer removed the "aesthetic eye" and taste of a designer and allowed a greater level of complexity in the new on-screen system of probabilities.

"But how can this dimensionless binary house, with all new aspects of architecture, be built?"[846] Plottegg asked. He suggested, for example, simply giving one of these functionless drawings scale. "If you say the screen represents a space 200 meters long, that scale alone gives it a context or function—window, table, book, room, house. Just take one of the many lines and call it the drainpipe. The naming process decides the purpose. Ask the structural engineer which line he wants to use as the girder. Ask the client where she wants the bedroom."[847] That something functioned (e.g., that the water drained from a bathtub) resulted from the naming process. The interpretation and the use of the drawing were much more flexible, and amusing, than rigid planning.

Plottegg was calling out functions in screen space just as Frank Gehry's client in Malibu determined the eventual plan by camping out in the empty house, feeling where the functions would land. He was doing to screen pictures what Hadid did to Malevich's *Arkitectons* by investing abstract drawings with scale and function.

The Austrian architect instinctively interpreted indeterminate, "fuzzy" drawings as chaosticians interpret nature, seeing "selfsame" patterns recur at different scales. A squiggle does not refer to any one thing: it could be a chair, a house, or a part of a city, depending on the scale applied. Undecidable data and images became decidable once Plottegg determined a frame for interpreting the information in a certain way.

In computer architecture, this meant a field of play. "An interactive process between the designer and computer produces various bits and pixels, accidental shapes, from which ideas are presented to the mind," said Plottegg.[848] For the Austrian, designing represented ideas, while interaction with a blot on-screen proposed them.

"If you work by yourself, you can't get rid of yourself as a limit system,"[849] Plottegg said, echoing the Derridean observation that you are never outside structure you're analyzing. As a designer, you can't design outside your own system. At a certain point, the computer offered access to other systems, to othernesses yet to be determined.

FIG. 482 Manfred Wolff-Plottegg, sitting on The Forerunner, a chair he designed in 2010 for the competition "Styria's Next Chair Designer." In this iteration of the transformable chair, Plottegg uses his leg as its missing front leg. The chair extends beyond itself with a carpet and train into surrounding space, forming its own microenvironment.
© Manfred Wolff-Plottegg