

# Troping Matter: Death Masks and Life Casts

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## INTRODUCTION: GENERATIVE MATERIALITY

Matter is arguably the marginalized “body” of Architecture.

While the valuation of “Idea” over “Body,” or “Mind” over “Matter” is part of the problem, the reluctance of those concerned with matter to engage in an articulate discussion of how matter can be rigorously generative is also responsible for the continuing marginalization of this approach. In most design process, the role of materiality is classically “repressed.” With certain conspicuous exceptions, this is clearly the case in most Design school curricula; playing around with “Real” materials is messy: “time - consuming” and “dangerous.” Matter is “seductive,” “intuitive,” and “literal.” If real materials are considered at all, it is saved till the end; they can lead you astray....

In the absence of primary experience with materials and material failure, Idea comes first, and is then typically clothed in matter as a communicative strategy. In these schema, materiality has been reduced to part of a language of communication rather than the context for a primary experience which re-creates the universe. In much of the literature, there is an apparent antipathy between material concerns and any kind of intellectual formulation of the strategies of critical reading or culturally constructing meanings. We are given an untenable choice: we may rely on “Taste” or “Symbolism” (the Scylla and Charybdis of *personal* and *cultural* willfulness) or fall mute, like Masons, before the mysteriously apprehended givens of Matter.

This paper proposes that Materiality can be a primary consideration, and generator of programmatic positions. I propose that engagement with Matter is inherently both spatially and metaphysically generative: that the potential for meaning is latent within the characteristics of any material and the ways in which that material is worked. Through a careful interplay of reason and imagination, material premises can accumulate layers of analogous association and generate (rather than describe) Program, constitute (rather than explicate) Site and invent (rather than accommo-

date) Tectonics. I propose a return to the materiality of architecture, but insist on the underlying intellectual nature of that endeavor to combat its continuing marginalization as the barbarous underbelly of contemporary design.

## PART I: INVENTING TACTICS: FRANCIS PONGE AND THE OBJEU

As a first step towards articulating a strategy towards conceptualizing poetic or resonant attributes of materials I propose using Ponge’s method of “Objeu” to evolve a rhetoric of Concrete.<sup>1</sup>

### A Poet of Things

Francis Ponge, referred to himself as a “Poet of things.” Impatient with “figures of Speech, which appropriate things for a tactical purpose,” he invented a procedure he called Objeu—a gaming with/of the object which yielded the “proemes” he wrote entitled “Soap,” “Mud,” “the Pebble,” and “the Prairie.” Ponge spoke of “Le parti pris des choses”—or the programme taken on (or suggested by) things. I borrow his procedures to propose a series of tactics for architects who intend to make programmatic fields from material presences. In brief, these suggest creating a *qualitative* catalogue for a given material, or an inventory of metamorphoses. The temporal is critical. This inventory engages the sequences of human interaction with the material.

Ponge entitled his strategy “adequation” and proposed that each prose/poem take on its own object of study. The process of adequation invents a rhetoric for each object of study; although the “objects” of study fast dissolve to their material substrates; rock to pebble to sand, cigarette to ash, smoke to air, soap to slime. One rhetorical form evolves for each object; not merely an apt choosing between the classical tropes, but an inventive process which, for him uses things to reflect on the nature of language.

In an essay entitled “Ma Methode” he delineates explicitly and implicitly the strategies of Objeu: I have extracted, entitled and classified several to use in my enterprise.

*Personal***strategy of Familiarity:**

Determines the kinds of things one might look at.

**strategy of Observations / Descriptions:**

For their respect for the sensory aspect of things.

*Expert***strategy of Cataloguing or Inventory:**

For its completeness, to counterbalance subjectivity.

**strategy of Concrete Definitions:**

Common: habitual and elementary

Uncommon: "necessary for things to disturb you"

**strategy of Origins (eidetic reduction):**

"The thickness of words and the thickness of things"

**strategy of Metamorphoses:**

Metamorphosis - of definitions, of things

**strategy of Centering:**

"the making of cosmologies, but one at a time."

**strategy of Negation- (bracketing):**

Revealing differences; approaching particularity.

Frontiers, limits and fringes. Contours define.

*Objoie***strategy of Joy**

Poems adding qualification to the scientific method.

**strategy of Ease:**

The 20-min. method: (Dec. 27; enough for today).

**strategy of Multiples:**

Necessity for frequent change.

**Cataloguing Sequences: The "Function" of Matter**

To follow Ponge's "Method" to create a material trope I need to begin with an understanding of the sequences integral to our involvement with the material. This approach expands the usual catalogue of sequences in both breadth and depth. The term "material function" is conventionally understood to refer to the material in the construct as it accommodates human use, both structural and experiential. It is very common to look at a building as an assemblage of (materially determined) structural forces acting in balance, or as a set of phenomenological linkages between the experience of the sentient occupant and the sensual (material) aspects of the assemblage. But these readings freeze the construct in a timeless state: the building is always standing still, endlessly experienced in the present tense. Given the current relative health of intellectual engagement with phenomenologically and structurally based material issues, I will bypass these aspects of Concrete for the purposes this paper.

A broader set of sequences arise when Material Function is defined as "the reality of human action in the constructed world;" when we enter the realm of the "maker" of architecture. David Leatherbarrow charts a greatly expanded realm of material sequences in part 3 of his recent book *The Roots of Architectural Invention: Site, Enclosure, Materials*. He expands the sequences temporally in two directions—earlier, to the realm of construction, before the building is

standing or inhabited, and, most notably later—to its life in the world—to the "agencies that finish a building" its craft, occupation, wear and weathering.

**Le Parti Pris des Choses**

Material sequences might unfold further in both directions; even earlier, to the chemical and cellular aspect of material composition, as revealed by "resistances;" qualities revealed by experimentation and the imagination of new technologies for its visualization. (For example, the microscope.) Every material has a natural history; ranging from its transformations in the face of heat, pressure or humidity to its involvement in larger metamorphic cycles at the scale of the globe.<sup>2</sup> Materials have also a social history, similarly multi-scaled.<sup>3</sup> Finally we might add two later categories of sequences which enter the realm of Memory and Desire: the accumulation of programmatic and contextual associations which expand the "context" of a material construct, entangling it with spatial narratives from other times and places,<sup>4</sup> and the attendant conditions of demolition, which can imbed an implied future narrative within the immediacy of any material.<sup>5</sup>

**Reading in the Realm of the Maker**

My project, following Ponge, is to play the role of the "reader" with sequences that have traditionally been in the province of the "maker" and to bring the technical associations and heightened sensibility of the "maker" to the activities of the "reader." This reading can accommodate and instigate what I would call resonant or imaginary readings of materiality: Material Tropes.

**PART II: TROPING CONCRETE; A CASE STUDY**

In this second part of the paper I will begin to delineate a rhetoric for cast concrete and plaster, using the work of four people whose work can constitute an "Objeu" for cast Plaster or Concrete.

The first, Anthony Gormley, uses Technological associations at the scale of the Body.

The second, Rachel Whiteread, uses Psycho-political associations at the scale of the Object.

The third, Juan Navarro Baldeweg, uses Spatial associations at the scale of the Building;

The last, Josep Lluís Mateo, uses Temporal associations at the scale of the City.

**ANTHONY GORMLEY:****LIFE CASTS AND DEATH MASKS****Space of Work I: lime, pressure and heat**

The largest concrete structure in the world is the Great Barrier Reef off the coast of Australia. Dying polyps are crushed by the currents of the ocean into lime, which mixes with sand and water to continuously deposit layers of cementitious substance over the existing structure. New polyps continuously attach themselves, continuously grow,

and are continuously pounded by the action of the waves. The Romans added lime to concrete by crushing an egg into the mix. At the chemical level, concrete and plaster are inescapably linked through lime to the cycle of life and death.

Both plaster and concrete harden via a process called the exothermic reaction. They are constituted by adding a dry mix to water; this is a slow process, which alternates between frenetic activity and absolute stillness. At a certain point, when the mix is right the compound begins to heat up. At this time it must be poured immediately. Air is removed, and the liquid maintained motionless by a formwork. The mixture moves from cold to hot and back to cold; and simultaneously from liquid to solid, from flowing to static. The process involves loss; of heat, air and water.

### Material Sequences

Gormley's work exists within a lineage of sculptures of the idealized human body. A history of their formal referents produces one set of meanings. If however, the associations of the reader are brought to the realm of the maker, another set of considerations emerges from the way they are made.

Anthony Gormley initiates his body sculptures by taking a mold off his own body. Plaster is laid on in strips of gauze over his rigid body, cold, wet and loose. Air is removed from between the layers to ensure close contact. At a certain point, this second skin becomes continuous, heats up and begins to harden - and then becomes an armature for him, hardening and maintaining his increasingly cold and exhausted body in its original position. At first he is the mold or formwork. But as the plaster sucks the warmth out of his body and hardens, it becomes the mold for him. Finally, the skin is carefully cut, and he draws himself out of the armature to assume other postures. This process has been critically referred to as "a Shamanic rehearsal of Death;" and indeed if the process stopped there we could see these fragmented skins simply as the residue of a ritual of entombment and release, an analogous Death mask, which draws the last bit of heat and life off the face of the beloved and holds it indefinitely...

There is a second reversal of armature with other implications. If Gormley wanted to cast a solid body, a replacement for the body on which the skins were cast, he would first have to make what is technically known as a Mother Mold. This is usually a formless mass whose sole existence is to hold a set of mold pieces in the correct relationship to each other so that they can act as a continuous external formwork. They are almost always used to create solid casts; the mother mold is then taken off and the shaping pieces removed. However Gormley insists upon the hollowness of these works by including Air on the list of materials below the title of each piece. And so his process takes a critical swerve at this point. The finished sculpture is in fact the mother mold itself; he adds a series of skins, first in fiberglass and then in lead to the outside of the reassembled originals, slowly building up their thickness and universalizing the particu-

larities of their form. These bodies hover in our perception between the body as a thing, and the body as a space.<sup>6</sup> Joints and welds on the surface emphasize our reading of containment. Like the tactical seams of the mother mold they appear to be traces of a highly regularized system of assembly; procedural rather than immanent. This process of successive encasement is taken to various levels. As the layers increase, the form becomes less and less identifiable; ultimately the mass is imbedded into the wall and becomes surrounded by a (choral) matrix of clay and water. If the first few steps of this process associate themselves with the *techne* of the Death Mask, then these placental constructions must be considered Life Casts.

The significance of lead in this process has been noted by many critics; Lead skins seal and protect. They are used as impermeable protective membranes. Lead is heavy, poisonous, and chemically irreducible. These readings return to the materiality of the piece as a language which communicates. "Lead" is mined for its associative content. My interest, however, lies in the pre- or sub-symbolic materiality of the work; levels of significance which emerge from processes rather than codes.

### RACHEL WHITEREAD AND HOUSE:

#### TROPING POCHE

#### Space of Work : Assembled Mass

In order to cast a form, it is always necessary to first create its negative. The building of this negative is an act of constructional analysis. The objective form is first conceived and built as a space. The surface of that space must be free of what is known as "undercuts"—protrusions which will form a lock with the hardened mass of the final form and thus prevent removal of the formwork, or remain forever embedded in the final piece. It is generally inefficient if not impossible to make mass which is in fact solid. All mass is at some level assembled mass, whether through expansion joints, or simply the division of a set of finite individual pours. The world's most "massive" and apparently homogeneous structures—Gravity Dams—are in fact honeycomb assemblies of jointed vesicles.

### Material Sequences

Rachel Whiteread casts plaster into (rather than off of) familiar everyday objects. The space beneath a table, inside of a wardrobe, within a mattress. Things which we have always seen as objects within our house are revealed as spaces. These are spaces which we put our bodies in daily—but which have always been visually inaccessible. We are made aware of them for the first time by seeing them standing, inverted and stripped.

In 1993 she cast the interior of a house. While it appears to be a single homogeneous mass, it is of course hollow—the structure of a wooden house could never sustain the tonnage of plaster it would take to fill it up. The piece, in fact, won engineering prizes for the way in which it sequentially

handed loads back and forth between the wood structure and the plaster structure during its paired reciprocal process of assembly and demolition. After producing a full scale drawing which served as a template for herself and the engineers, she stripped and sealed the house, and gunned on the plaster from inside with a steel mesh reinforcement added beneath the surface. A hole was left at the top for the workmen to exit. Once the plaster set solidly, the house itself was carefully stripped off.

Much was revealed. The most private spaces—closets, chimneys and bathrooms—now hung off the perimeter of the house. The house appears to have been turned inside out: the slickness off the glass, the textures off the wallpaper, and all the surfaces of habitation have been trapped and inverted. This is the wear of a human life, however, rather than the patina of climate. Casting has the clarity of inadvertent memory; things you didn't realize you knew and intimate details stand out in high relief.

The piece provoked turbulent debate. By indulging the necessity to reveal what is hidden, Whiteread transgressed the realm of private imagination, made the familiar unfamiliar, and brought the uncanny discomfort of the Death Mask to the Public Realm.

## TROPE: THE INDEX

### Proposal:

The Index is a trope with a natural affinity for the techne of casting. In an article entitled "Notes on the Index," Rosalind Krauss linked the structural qualities of this rhetorical device with the language of casting, although she wrote primarily of visually based casting; cast light, cast glances, and ultimately, photography.

### Definition of the Index:

"That type of sign which arises as the physical manifestation of a cause, of which traces, imprints and clues are examples ....As distinct from symbols, Indexes establish their meaning along the axis of a physical relationship to their referents. They are marks or traces of a particular cause and that cause is the thing to which they refer, the object they signify."

Rosalind Krauss, "Notes on the Index"

### Attributes of the Index

1. The Index indicates rather than represents objects
2. The Index transgresses the line between representation and reality
3. The Index requires physical contact in its creation

### Examples of the Index

Shadows  
Physical traces (like footprints)  
Medical symptoms  
Clues

## CONCRETE ABSTRACTION AND THE FLUID INVERSION: JUAN NAVARRO BALDEWEG AND THE SALAMANCA CONFERENCE CENTER

### Space of Work: Mass and Void

In order to cast a form, it is necessary to first create its negative. The building of formwork is a primary constructional act of analysis, in which space is conceived as both primary and concrete. The specific relationship between the form and the cast has no linguistic corollary. Mirror, reversal, inversion, nothing quite prepares us for the transformation (via fluidity) between void space and solid matter. And yet the words are relevant. Like all casting, casting into a formwork is indexical and can carry the content of reflective tropes; it both mirrors (repeats) and reverses (transforms). But the transformation between solid and void carries another signifiatory load; it may also imbed or release.

### Material Sequences: Troping Construction Sites

"It is interesting to note that in an urban environment construction sites become small theatrical arenas, the only places where raw substances and the processes of their transformation are visible, and the only places where random distribution is tolerated"

Richard Morris

"Notes on Sculpture: Part 4"<sup>7</sup>

Roland Barthes used the term Concrete Abstraction to describe the view of Paris from the top of the Eiffel Tower.<sup>8</sup> The overview totalizes, but unlike the map it shares literal physical characteristics with our intimate, inadvertent memories of the parts we have experienced. At any given moment, a construction site is a Concrete Abstraction of the building to come; a set of foundations, an articulate coding of re-bar, a map of time as well as space. When traces of construction remain, they simultaneously display the passing of time and freeze it. In the Igualada Cemetery by Enric Miralles and Carme Pinos, an explicit indexical relationship to the processes of Construction becomes the rhetorical device which architecturally illuminates the program of Cemetery.

The published construction photos of the Salamanca conference center provide a material mapping of the spatial construct. Four towers are built first, familiar figures in a city of towers. With the construction of walls between them, these become a formwork to cast a void, a perimeter to contain the construction of a dome in a city of domes. This dome is lifted, but never out of its encasement, permanently cast-ing. Not a *capstone*, but a blastula—a space appearing from and remaining hidden within the body. In a city of rising domes, this one stays half buried in the formwork within which it was constructed. Light replays the fluid inversion, pouring down the interstices between form and space, casting movement between and along the edges, held in suspension within the central space. How does history repeat itself? A shadow cast: the body is a thing, the body is

a space. Towers, city walls and domes, locked together in a permanent succession, enablement and entrapment; burial and release.

### **TEMPORAL ASSOCIATIONS AND VESTIGIAL REGISTRATIONS: JOSEP LLUIS MATEO AND HISTORIC PRESERVATION**

#### **Space of Work: Surface and Time**

In order to cast a form, it is necessary to first create its negative. The cast mass will take on the surface characteristic of the substance against which it is formed - depending on the mixture, that surface can replicate an extraordinary level of detail. The final construct speaks indexically of its shadow building; the formwork, and thus of its own past. These same surface characteristics can register other temporal traces; the processes of finishing and weathering both overlay and re-inscribe the traces left by the formwork. When traces of formwork remain, they recall the formwork (which was never ordinary) and simultaneously display and embalm/freeze/retard the passing of time.

Architects use this indexical relationship in different ways. Kahn, for example uses his formwork to reveal, exploit and celebrate successive pours, joining time, space and constructional sequence. Michelucci, on the other hand, buries his pour joints in a formwork which weaves together floor, ceiling and wall, surface and mass, and ultimately distinct temporal moments into a seamless flow of time.

#### **Material Sequences: Troping Preservation**

The central problematic under debate in Historic Preservation is the accommodation and registration of Passing time. If historical objects and scapes are allowed to disappear, the past is erased. If they are restored to their "original" condition, time is erased. The stabilization and preservation of eroded fragments registers time, but suspends the future.<sup>9</sup>

Does Rachel Whitereads "House" qualify as Historic Preservation? Gordon Matta Clark's "Office Baroque?" There is a kind of indexical intervention, exemplified recently by work from Frank Fantuzzi and Dan Hoffman at Cranbrook which explicitly mines the potential of the Death Mask, "sets up not a perception of the being there of an object but a perception of its having been there, bringing the building into the consciousness of the viewer in the form of the ghost." (Rosalind Krauss, "Notes on the Index") But they also add another dimension, casting in a sign of the present. In these works, as in a Death Mask, the extraordinary level of craft is a form of loving destruction, and the material sequence being troped is Demolition.

#### **Life cast: Vestigial Registrations**

Josep Lluís Mateo's project in Ullastret is essentially a linked set of drainage and paving details in a touristed historic town. This work was made necessary by the passage of time; essentially the project repairs and protects against the ravages of wear and weathering, reinforcing against the erosion

of feet over time. Occupation determines weathering; details re-channel the passage of water, which had re-inscribed the traces of passage.

The surfaces of the work register multiple times simultaneously: On one hand the work registers the compound spatial overlay of history, but with no particular valuation of particular pieces over others, and no delineation of historical sequence. The work also traces a travel itinerary, on foot and by bus, moving, ascending, waiting and looking, a cinematic overlay of one time frame on another, leading the tourist through the town, creating sequences and stopping points, clues to future movements and recollections of earlier sights. We are choreographed, like a passion play, through the town, with specific interactions meaningfully situated. Our time is cross registered with the time of the artifact we came to see, and with other, previous, paths through. As tourists, we look to our feet. In Ullastret, that surface speaks, cast from the traces of passage over time.

#### **Material Imagination**

Mateo's work in Ullastret suggest ways in which an indexical rhetoric might affect architectural terms, particularly relative to work in an existing context.<sup>10</sup> The work is not defined by overall strategies and organizations; rather a series of moments from widely dispersed parts of the temporal flow are selected and registered. Internal Divisions "imprint rather than encode" reality; the tactic for this selection is isolation and a heightened (surplus) condition of reality.

Mateo marks passing time, allowing resultant spatial divisions to cast simultaneous shadows across the ground plane. What is physically created is the least common denominator rather than an overlay of conceptualized wholes, a ground which refuses to arbitrate the competing demands of neighboring objects to a common space. The flow of time is frozen and sections cut and cast. Instead of "communication," there is a direct literal transposition of physical artifacts. The work is treated as a repository of evidence; the medium of casting provides a procedure for imprinting. Lines are not implied spatially, but materially drawn through the passage of rain; sequences are not conceptually coded but drummed through the feet of tourists.

The rejection of coding, explication and the symbolic mode does not necessarily leave us mute; this approach towards an inventive troping of matter involves a necessary turn from the symbolic to the imaginary, through the careful interplay of reason and intuition. Ponge stated that he was interested in "not the endless play of signifiers, but the re-establishment of the intimate connection between sign and signifier."<sup>11</sup> The project in Ullastret, is a collection of details which, like the reliquary,<sup>12</sup> allow simultaneously for functional use and use by the Imagination and Memory. I propose that Mateo's work in Ullastret operates as a memory theater; constructing locations and the artifacts which are placed within them, allowing us to construct our own rhetoric by an imaginative walk through.

“Although our work starts with the volatile, unstable, ephemeral materials taken from daily life, other vaporous materials appear along the way. These are the phantoms, that once inhabited the place. The presence of the past in our designs more and more literally resemble ghosts—immaterial beings with a physical presence. The project must practice its alchemy, and solidify again these vaporous substances without destroying them in the same way as space within a room, where sunlight streams in through the window, is materialized by millions of dust particles, shining as they move.”

Josep Lluís Mateo  
 “Vaporous Solidity”  
*Domus* no. 767

## NOTES

- <sup>1</sup> My discussion of Ponge is based primarily in his essay “Ma Methode”
- <sup>2</sup> Primo Levi, in *The Periodic Table*, writes a series of short stories organized by significant material qualities of the Elements, which become narrative tropes. John Mcphee’s books chart the correspondences between geology, morphology and human histories; see *Basin and Range*, and *In Suspect Terrain*. Robert Smithson’s work, particularly pieces like the film “Spiral Jetty” and writings like “Strata; A geological Fiction” also work in this realm.
- <sup>3</sup> George Beasley, a sculptor in Atlanta, works with cast metal, and on (or perhaps through) foundries as constructors of social relationships. His works always begin by constructing a foundry (a necessarily communal experience), but he also incorporates the remains of abandoned foundries in Georgia, and the memory of the immigrant cultures that grew up around and disappeared with them.
- <sup>4</sup> Bachelard’s 4 books on the material imagination are an extraordinary source for this, mingling psychological and literary associations in unfolding the characteristics of Water, Earth, Air and Fire. Many Architects are working with this region of material signification; particularly clear examples include Scarpas work in the Veneto, and recent work by Torres and Lapena.
- <sup>5</sup> Gordon MATta Clark worked extensively with this area of material sequence; recent architectural work troping this must include the Igoalada Cemetery by Miralles and Pinos.
- <sup>6</sup> This phrase of Gormley’s was brought to my attention by John Hutchinson in “Return (the turning point)” In *Antony Gormley* pp. 32. London: Phaidon Press Limited. 1995
- <sup>7</sup> Robert Morris. 1968. “Notes on Sculpture Part 4” in *Continuous Project Altered Daily* pp. 69 Cambridge, Mass: MIT Press. 1995
- <sup>8</sup> Roland Barthes. “The Eiffel Tower” in *The Eiffel Tower and other Mythologies* pp. 244.
- <sup>9</sup> This discussion is indebted to an excellent article by Ellen Soroka: “Restauro in Venezia” in the *Journal of Architectural Education* (JAE). May 1994
- <sup>10</sup> Rosalind Krauss’ articles concludes with a speculation on the implications of indexical work for what she considers the four elementary attributes of painting; frame, picture plane, composition (internal divisions). I have tried to use the work of Mateo to begin to lay out a similar series of implicaitons for the architectural intervention. The work of Frank Fantuzzi with Dan Hoffman at Cranbrook is particularly provocative in this regard.
- <sup>11</sup> This is a phrase used by Francis Ponge.
- <sup>12</sup> This photograph was used by John Hutchinson in his discussion of Antony Gormley’s work; I biring it back as a significant counterpoint to the work of Mateo, and indeed to the topic of indexical work in general.