

Engineered
Transparency—
The Technical,
Visual, and
Spatial Effects
of Glass

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"TruTranscripts, The Transcription Experts" (212-686-0088)

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Engineered Transparency Glass
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Shadows of mirrors

...I refused to look at myself in the mirror, to use Lacan's metaphor, and in this way I reject the possibility of re-assembling the multiple fragments, the multiple disorders I have to re-articulate. The glass is definitively broken, and there's no previously existing picture of this reflecting puzzle with which to reconstruct it. What's worse, the picture is still here, on the floor in a multitude of images themselves in a multiples fragments, disseminated as an Opus Incertum. In this sense, the glass remains at a fractal level, instead of reducing the existence of the unknown by limiting it to its own appearance, by the reflective reduction of the reassembled reality.

We could accept this non self-representation as the first lost effect of the broken glass.

Glass is both a substance and an ideology, it's an apparatus that can be pulled and pushed in any direction. It helps us move from the mythology of transparencies and technologies described by Roland Barthes, with its positive overvaluing, to other strange boundaries, more ghostly, with blur refraction and lead anomalies altering perception, like an illusionist membrane...

To circle the topic without touching it, I would like to describe, in chronological order, four protocols used in R&Sie(n) projects, an iconic one for *Shadows & Light*, a dynamic protocol for *Unplug*, one involving elimination for *Spidernethewoods* and, to end the session, the recycling "bachelor apparatus" for *Olzweg*.

First protocol: *Shadows & Light*. Here we have tried to articulate technologies and profane emergences, dealing with and negotiating positive and hygienic values and the forest of the unknown. This project for the Japanese Cultural Center in Paris is schizophrenic. It dates back to 15 years ago, when I was interesting in using the glass box as just as it claims to be, a glass box. We proposed an opposition of two atmospheres, two climates, one the modernistic cultural myth from Jacques Tati's *Playtime*, the other by some wild, evil genius, something between *Blair Witch Project* and *Fitzcarraldo*.

The theme of this project was the use of glass as a metaphor for a dry climate, an over-domesticated, cold and inert biotope, a psycho-interpretation of the materiality produced in a standard flat panel, the illusion of transparency – a phantasm of accuracy and sophistication, of an enlightened century, of panoptical space in Michel Foucault's sense, with its ideology of surveillance, contrasted with a toxic mushroom mountain, a *Sturm und Drang* heterotopic cavern, with its humidity and echoing sounds, a place

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where Mephisto, hidden in the darkness, is dealing with the boundaries of human nature. In that period of our work this schizoid articulation was very literal, in a way, perhaps too closely following Guattari and Deleuze's strategy of schizoanalytic cartography. But it was a kind of starting point, the birth of the R&Sie(n) studio. Later, after that initial period, we found a way to go further – by more fully striving to achieve an incestuous union and hybridization between the dream of Galilean technology underlying the field of architecture, with its ideological hoax, and the recognition of the failure of that dream, like a “morning after” feeling. Re-reading Mikhail Bakhtin's re-reading of Rabelais, the French author of *Pantagruel* and *Gargantua*, helped us to include within each idea and project a resistance to the values developed by the project itself. The grotesque quality, the profanation, the freakishness – all these are vectors of radical criticism, a blur mirror, a negotiation with Bataille's “la part maudite,” an articulation between the propaganda of technologies and distrust in it.

The material so perfectly embodies the metaphorical costume of ideology of progress that it becomes an ideal tool to give back the gift, unalienating, in this way, the relationship between causalities and dependencies.

The *Unplug* project is the second protocol articulating this ambiguity. It is a project commissioned by France's national electricity company, EDF, for the design and construction of a fully unplugged – off the grid – tower in La Defense, a business district just west of Paris. The point was to design a structure that defined and provided its own resources using solar energy. This commission directly involved us in the field of sustainable development, renewable energy, and its collateral effect on moral consciousness. At that time EDF was committed to developing a department dedicated to concept buildings, in the same sense as automobile companies make concept cars. The objective of this kind of industrial design object is to be a vector of both research and feedback, a way to measure the demand created by the product itself. Prototype buildings were to come at the end of the process, after a period of testing, to develop market projections for sustainable development technologies, the selling of products, services and knowledge. This unplugged tower explored the solar energy potential of the glass façade and all the steps entailed, from research, applications and production to retail sales. The protocol we developed sought to articulate this ambiguity between producing goods and providing services, where the item-device is directly territorialized within the building matrix and becomes an osmotic extension directly embedded in the flesh of the building, a Siamese generative mutation. To carry out this strategy, we started by approaching solar power research from two different angles, first photovoltaic cells with left curved surfaces to supply electricity, and secondly glass tubes without atmosphere with liquid silicone and glycol for the heating system.

These elements could be compared to a living graft, where glass protuberances and hair are plugged into the network, in direct relationship with the electrical nervous system and the warming blood of the building itself. We had to consider this solar element as intrinsically an “elephant man” mutation of the glass skin, and to design it as a collateral effect of transformation.

With this healthy profanation of the purity of the glass facade, we tried again to unalienate the residual positivism of these technologies, to interrogate the nature of their

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lost, deterritorialized identity, the shift from a positive degenerative cancer to anomalies and mushroom-like (or tree-like) protuberances for symbiotic exchange. One device, with its hairy surface, looked like fur, and the other, with its glass excrescences, seemed to be a disease of the flat panels. Beyond this unshaved and diseased appearance, what we were talking about was the transsexuality of a typical downtown skyline when this perfect 1950s icon of capitalism is burned by the sun. The freakishness, the monstrosity, is clearly identified as the lost soul of minimalism. Philip Johnson is sad; his Glass House is deeply perverted by the multiple disorders – the revenge of the warming biotope. The national electricity company got a little scared about the background of the design. But before taking a strategic position by constructing a prototype, the concept building department was closed down and disappeared entirely within a week due to an internal political decision. This company finally decided to go back to what they know how to manage perfectly: nuclear power.

I don't know if there is a moral to this story. Perhaps it's something like "Don't push your mother into a *Nip/Tuck* transformation", or as Baudelaire said, "The devil always finds a way to convince people that he doesn't exist."

Very Far away from the plastic surgery, I would like to move on to another protocol, the exact opposite of the one I've just described, where the use of glass is in total contradiction to today's topic: a "Blair witch project" in the forest, where the component of glass is utterly rejected and eliminated from the house. The project was to be located in a real forest, not, this time, in our paranoiac landscape, to interrogate the traditional relationship between the indoors and the outdoors where glass is used to articulate and as a thermal interface between them. We wanted to remove it and create a complete porosity, a perfect non-distinction between them – a labyrinth in the forest which is a house.

This experiment is in the spirit of the story of the three little pigs. You can easily imagine how much I could prefer to negotiate with the first little pig's house, which could be blown by the wolf, with impermanency and fragility.

In this summer house of 400m², the large sliding glass door disappears entirely into the spider net envelope when the house is occupied. The only visible substances are trees, curtains, the cloth wrapping, porosity and wind. Before reaching this *Blair witch house*, people have to walk for five minutes through the forest, with no indications to find their way. Don't get lost, because the wolf is not far away and the night is very dark! Proceed at your own risk! The labyrinth clearing appears behind the trees. There is no façade; the architecture has no physical presence other than the spider net experiment. I have to admit how sexy this protocol is, in terms of physical sensations, phenomenologically, as a permanent invagination between interior and exterior, between the elves of the wood and the Shrek of the house. The budget for this first little pig's house was very low, and the scenario was an apparatus directly dependent on that parameter.

Now I'd like to talk about the last glass paradigm, glass as a smear, as caramel able to glue together an existing building, to corrupt its geometry by dripping all over it,

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wrapping around it and vitrifying it. The commission was to renovate an existing building, the FRAC (regional contemporary art museum) in the city of Orleans, in central France, the venue for ArchiLab, one of the wildest collections of radical and experimental architecture.

You could imagine how it deeply problematic it could be for an architect to design a contemporary architectural museum where his own work is a part of the collection. It's like digging your own grave in a frozen cemetery you've designed. More seriously, the main difficulty was to define the scenario knitting together visitors and the pieces in the collection. We wanted it to be the opposite of a graveyard – we wanted to keep the museum alive and breathing, like an organism able to swallow and digest the visitor, a museum as a non panoptical *cabinet de curiosités* or wonder cabinet, where people could lose themselves when the users' manual itself is lost, on a permanent vacation or in permanent transformation, like "The House that Jack Built", an episode in the 1960s TV series *The Avengers*, with Emma Peel.

Our heterotopic proposal was to dream up a "body without organ," a *CsO (corps sans organe)* in a sense of Antonin Artaud and Deleuze, a kind of a desiring machine, a machine that articulate substances and intensities, slipping over surfaces, infiltrating flesh and infiltrated by flesh, in a multitude of possibilities. This *BwO* (body without organ) is generated by smearing the existing building, as if with glue, sliming it to rediscover, in the massive depth of its viscosity, a way to embed a multitude of accesses, of walkways, and forked paths, of unlimited relationships and geographical detours and twists.

The disappearance of the building itself is a mechanism to re-inject a new function, but also to re-inject a new protocol to define that function, as a tool. This labyrinth, for a museum talking about architecture, is a trap, a man trap, like a heterotopic experiment.

To pre-define the emerging shape, we first dripped liquid sugar like glue on an ugly model, and then parametrically reinterpreted this morphology by scripting. The glass, stacked to a depth of between three and six meters, is produced through an endless process of accumulation by a kind of Duchampian bachelor machine. The objective was to make the machine work stochastically, so that it became an agent of indeterminism. Therefore the software algorithm driving it integrated latitudes of indeterminacy, generating a loss of causality and control, as a speculation on the void, on the deficit of design, of anticipation of shape, of a lack of *Gestaltung*. The glass stack first swallowed the building, then the courtyard, turning it into a glass quarry, and further colonizing the boundaries and vitrifying the city again and again. The FRAC museum, in this way, became an anthropophagic animal, a wild anomaly, an agent of contamination, a virus, infiltrating the conservative mind of the French neighborhood. To reduce the cost of this apparatus, we worked quite a bit with Saint-Gobain, the main French glass manufacturer. We worked directly with the bottle recycling department, the opposite of the hi-tech flat glass department. For the building we need two million glass sticks from double quantity of bottles. We proposed, first, to use 10% of the region's recycled glass by volume (20,000 tons per year), produced thanks to the population's ecological consciousness, and secondly, to develop a longitudinal construction process spread over 30 years, like the

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building of Gaudi's Sagrada Familia. Thus the FRAC would not be an iconic statement, yet another post-Bilbao effect, but a dynamic apparatus, where the machine becomes a vector of indeterminate intensities.

Thus we programmed to deprogram the existing shape and launch a step-by-step process of mutation dependent on the variability and the impermanency of the inputs (desires, programming, curation...).

In this labyrinth, we introduced a technology similar to a PDA to help visitors determine their own location (by GPS and RIFD). This device remedies the lack of control and becomes a kind of navigator than can be used to follow a trajectory, or to escape from the trajectories, to find the restroom or *Beam me up, Scotty* to the exit. At the same time it creates the possibility of a self-curating, randomizing movement, or, on the contrary, of reorganizing the collection into a strict chronological progression.

The bachelor machine is a 12-meter-high robot, wearing glass clothes, a glass suit, able to fully disappear, for hiding itself, and be wrapped by the substances it aggregates. Both Esmeralda et Quasimodo, it is a vector of parametric design, uncertainty, randomness and incompletion. The glass is massive, non-transparent, a green blur with reflection-refraction effect, like the bottom of a bottle, like the lead glass windows in a Scottish bar.

"I'm late, I'm late, I'm late!" said the White Rabbit, to force Alice to jump into his parallel universe. Like her, in the FRAC, you could confuse your own paranoia with the unreality of your perception.

To end this speech, with this last picture, I would like to use this scene by Villard de Honnecourt, showing stoneworkers sculpting a piece for the construction of a medieval cathedral. The knowledge of the shape was shared by everybody, without any clear anticipation of what it would turn out to be or its ultimate height. It was a work in progress, by a process articulating a time after time equilibrium of knowledge within itself, as a permanent re-adaptation, negotiating the uncertainties, a protocol of emerging territories.

Through the use of technology, could we restart this apparatus meant to lose control, where the relationship of causality and dependencies disarticulates and unalienates the positivism and naïve addiction to these very technologies?

Francois Roche / R&Sie(n) / Fall 2007