from reality because they find it unbearable – either the whole or parts of it. The most extreme type of this turning away from reality is shown by certain cases of hallucinatory psychosis which seek to deny the particular event that occasioned the outbreak of their insanity."

14. Lacan, *Four Fundamental Concepts*, 55: “Is it not remarkable that, at the origin of analytic experience, the real should have presented itself in the form of that which is unassimilable in it – in the form of trauma, determining all that follows, and imposing on it an apparently accidental origin? How can the dream, the bearer of the subject’s desire, produce that which makes the trauma emerge repeatedly – if not its very face, at least the screen that shows us that it is still there behind?”


17. Anyone familiar with the Freudian account of the ego and the id will recognize, in this couple, an enactment, at the collective level, of (murderous) desire and repression.

18. The only option not possible is anesthesia, but this is a moral imperative to remain active and engaged in the face of the Real, which is bound up with an analysis of what is rotten in American civic culture. This is beyond the scope of this paper.


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**Nine Apparatuses to define how relationship strategies articulate knowledge and simultaneously articulate themselves.**

Francois Roche

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**PLANNING AND SELF-ORGANIZATION**

Two opposite systems of organization / The master plan of Hippodamus of Miletus; and the unpredictable growth of a sponge. Both are driven by algorithms and genetic commands, but one is fully predictable, a self-enclosed system, while the other is open-source, adaptable, reprogrammable, and dependent on the mutation of the environment and the recursivity of its own mutation. The former is criminally proud of its ability to “master plan” a system of control of individual and collective surveillance, to reference Michel Foucault; the latter accepts taking risks, both political and aesthetic. Being “open source,” it embodies endlessnesslessness.
THE DREAM TIME AND DAY AFTER
Two representations of time in altered states / NASA's "dream time" effect from 2001: A Space Odyssey, for promethean research; and the CIA's "day after" effect from A Clockwork Orange, a method for extracting knowledge through torture. In both, the notion of time is a blur—the arrow oscillates back and forth between two inexplicable limits. We cannot deny that the future is a sensation from the past, a sensation that's old and nostalgic. Thus, the future, as we understand it, cannot be the future, but something else, with another name, or with no name at all.

3D EFFECTS FROM ENTERTAINMENT TO FREAKINESS
What the hell / Somewhere between computer-assisted design based on keyboard addiction or weak fascination, and computing as a voluntary loss of identity and wholeness, a paradise lost, with Milton far in the background. One approach is Björk as a Disney-fied entertainer, naïve and illusionist; the other is a golem, or Gollum himself, a middle-aged Mephisto, a freak baby doll, a negotiation with the unknown created by profane technologies, which desacralizes science and its applications. In the first case, the result simply validates the skill of the nerd; in the second, the result rewrites the boundaries of knowledge, or, better yet, the boundaries of the interpretation of knowledge. Don't want to choose between Yoda and Darth Vader? They are just Siamese twins from the same matrix.

PHYSIOLOGICAL MUTATION
The appearance of hermaphroditic polar bears at the North Pole due to pollution / The acceleration of evolution due to global warming—wildlife forced to deal directly with these dangers. Polar bears don't deny climate change, nor do they emphasize it to proudly play the role of some Don Quixotes saving the world. The polar bear negotiates and absorbs change, undergoing physiological and sexual mutation to adapt its own body and identity to the conditions of its environment. Could we ourselves renegotiate our behavior, avoiding both the moralistic mode of seeking to purify the planet as well as the catastrophic mode of refusing to recognize the dramatic implications of our abuse? Could we be anything other than "Mr. Nice Guy" cowards or cynical bastards seeking to profit from the situation through thoughtless investment?

UNPREDICTABILITY AND CHOCOLATE
Toxoplasma Gondii / This is a story about a parasite that needs to be eaten by a rat. When digested, the parasite suppresses the fear of cats in the cortex of the rat, thereby compelling the rat to dance in front of the cat until it is eaten. Finally it reaches the stomach of the cat, which is the only place where the parasite can reproduce. We are just running around in a way that appears absurd; we have to resist the temptation to use science in a positivist way, which merely hides from us the reality of the nonexistence of meaning. In fact, we are driven by causalities and dependencies that exist as processes, never appearing as real in plain view.

CAUSALITY AND DEPENDENCIES
This is a story about a parasite that needs to be eaten by a rat. When digested, the parasite suppresses the fear of cats in the cortex of the rat, thereby compelling the rat to dance in front of the cat until it is eaten. Finally it reaches the stomach of the cat, which is the only place where the parasite can reproduce. We are just running around in a way that appears absurd; we have to resist the temptation to use science in a positivist way, which merely hides from us the reality of the nonexistence of meaning. In fact, we are driven by causalities and dependencies that exist as processes, never appearing as real in plain view.

UNPREDICTABILITY AND CHOCOLATE
This is a Kinder Surprise / In the 1960s, the city of Los Angeles banned the sale of this brand of candy because they considered the toy inside to be contradictory to American values: you can buy whatever you want on credit, but only if you know what you're buying. The unpredictable toys hidden in the chocolate eggs were denounced as a bad influence on kids. During the same period, LSD was legalized.
THE PARANOIA OF LITTLE GIRL
An apparatus of illusion and reality / The projection of the mind is enough to create green monsters. Just as Alice in Wonderland combines fiction with a palpable universe, we are now definitively plugged into a schizoid and paranoiac world as a result of a mass-mediated culture. When Duchamp discovered the music of Xenakis at the Philips Pavilion (designed with the help of Le Corbusier), he hypothesized that the production was infiltrated and contaminated, to an equal degree, by mathematics and little girls. This provocative statement was, in a sense, a theory of correspondence between music and space, as exemplified by Xenakis’s own UPIC software. By now, fiction has become the most important key to our alienation, with or without the little girl.

ECOLOGICAL ANOMALY
From Kurosawa’s movie Charisma, the conflict between ecological ideologies / A rare dinosaur tree, weak but highly toxic, a survivor of untamed nature from the past, leaching toxins into the ground of the biotope dying around it, and its opposite, domesticated nature, cultivated and economically profitable, growing in the very forest the weak dinosaur tree is poisoning. The little creature finds a way to protest its extermination by exploding, thereby producing a nuclear green mushroom cloud.

BACHELOR MACHINE
From Duchamp’s Large Glass, a machine of loneliness / The opposite of a mass production machine for the production of mass. Here the machines are tools for narration, not for industrialization. The apparatus includes scenarios of singularity, of anomaly, of ambivalence, and paradoxically, of melancholy, what Baudelaire called spleen in French. This machine could help us reconstruct Benjamin’s notion of aura through interwoven narrative parameters, its own uniqueness, and the internal contradictions of its own production. It’s an application tool, but it’s also a purveyor of rumors; the real function and behavior of the machine are impermanent and uncertain, which makes us doubt the principles and protocols of reality itself.

Endlessnessless
An e-mail correspondence between Francois Roche, Giovanni Corbellini, Alexandra Midal, Benoit Durandin, and Joker. The conversation begins as they’re looking at The Paranoia of the Little Girl, one of the Nine Apparatuses.

GIOVANNI CORBELLINI
What’s this, green monsters?

FRANCOIS ROCHE
Which monsters, did you see monsters?
**Endlessnessless**  
An e-mail correspondence between François Roche, co-founder of R&Sie(n), Giovanni Corbellini, Alexandra Midal, Benoit Durandin, and Joker

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**Giovanni Corbellini**  
What’s this, green monsters?

**François Roche**  
Which monsters, did you see monsters?

**Giovanni**  
I think so (but if I look at them a little bit longer, they begin to look funny)...

**Alexandra Midal**  
...From the paranoia of the two little girls. They are about to perform a productive—and not at all innocent—routine.

**Benoit Durandin**  
Never seen that; you mean, like a ritual? Like the reproduction of something itself, out of its own matrix?

**Alexandra**  
No, as a little girl myself, I saw them, I saw them, (humming): “… Sometime I’d divide / And burn in many places; on the topmast, / the yards, and the boresprit, would I flame distinctly …”

**Joker**  
With this kind of constellation of parallel universes, are you sure it’s a book about architecture?

**Giovanni**  
Who said that?

**Alexandra**  
What?

**Benoit**  
So this is a book about architecture?

**François**  
Nobody said otherwise.

**Alexandra**  
And why not?

**Giovanni**  
So paranoia is the key?

**François**  
More than a key, it’s an “apparatus”²...

**Giovanni**
Let’s suppose now that these Hulks were real...

**Alexandra**
But don’t threaten them; they could be like the White Rabbit.

**Giovanni**
Alice’s rabbit?

**Alexandra**
Don’t you know? The rabbit hypnotizes you as he runs away. I’d prefer Snow White mixed with girly Victorian fairy tales. Girls are not paralyzed by the proximity of danger in the forest. Don’t you feel that slight and exciting insinuation of casual sadism? I do!

**Benoit**
I feel like time is freezing, like being sucked up. Look at their paws! They’re leaving trails everywhere, bloody and green fluorescent footsteps. It looks like—I don’t know what a passage maybe?—now it looks like letters...I don’t know if...

**Joker**
You fools! All I see is a hairball, pushed by the wind.

**Benoit**
Yes, but it’s pushed by Eolos, the god of winds. “The thought is faster: it runs through everything.”

Look at the trajectory; it’s so erratic, full of noises, searching for the next movement, winding and winding and winding, writing on itself. Writing against architecture.

Maybe we have woken up the acephalous man, made of bones, guts, and nerves: mesoderm, endoderm, and ectoderm all folded together.

**François**
Think of it in a paranoid sense, as an apparatus: open to a wide array of interpretations, from self-illusion to freak 3d effects. We could consider this “moment” as the first apparatus, or, more precisely, how strategies of relationships embedded in this moment articulate knowledge and are simultaneously articulated by themselves. The two little girls are looking at the consequence of their own paranoia, which transforms, at the same time, the representation of our reality. By creating a subjective narrative, they articulate the dichotomy between fiction and reality, which forces us to reconsider our relationship to the tangible, material world. We are directly confronting the boundaries of the system, where, from this seemingly scripted confusion emerges an apparatus which reveals the boundarylessness of the self-conscious...

**Alexandra**
This is not so different than deja-vu: when you are convinced you have already lived an identical moment at another time. If you ignore the rationalist approach to this phenomenon—what scientists describe as a breach or alteration in the synchronization of the brain’s hemispheres—deja-vu is actually a shift of perception. And if you buy the idea that it’s an inexplicable collision between many parallel universes, like Henri Bergson—who dedicated one of his rare pertinent essays to the question of *Le Souvenir du présent et la fausse reconnaissance*—you’ll find elucidated what might be called a weakening of “the function of reality:” you get a momentary unfolding of the person. Something like the famous paradox set up by the physicist Ernst Schrödinger in 1937. He thought up an experiment in which a cat, a radioactive particle, and a mechanism made up of a Geiger counter, a hammer, and a vial of lethal gas were locked in a closed box. If the atom disintegrated during a given time, the counter would be activated, then the hammer, which would break the vial, then the gas would escape from it, and the cat would die. In a space ruled by the laws of classical physics, there is as much probability that the atom would disintegrate as that it would not. According to the laws of quantum physics, two possibilities superimpose one another; the atom is simultaneously activated and disintegrated; the cat is subjected to a state of uncertainty, at the same time both dead and alive. This
simultaneity is only completed at the instant when an outside individual observes the interior of the box… This principle, which dominates the subatomic and unknown parts of our universe, implies the co-emergence of two or more worlds simultaneously; so called parallel worlds. No future, no present, no reality? “Pick up the world, you can!” could be the White Rabbit’s motto.

**Benoit**

It sounds like a Spinozian motto: “The mind endeavors to conceive only such things as assert its power of activity.” Quantum physicists used to explain quanta theories through short stories, fairytales, in a way to transpose what they saw into something else, less astonishing and more accessible. “Four fishes are swimming in a pool, two floodgates open simultaneously on two other pools, at the end four fishes are swimming in the two new pools.” This parable is logical in a quantum sense, pertinent to an established field of research, and accessible to cognition: three requirements for any scientific knowledge. It also reveals the contortions that physicists often have to make themselves to understand quantum properties. They have to reintroduce non-crazy hypotheses (or theories) back into the field of common knowledge (i.e. fairytales), but as a result, those non-crazy hypotheses become transformative in their own right.

**Joker**

Quantum physics is about the ultra-small scale. What happens to subatomic particles doesn’t have much to do with the actual world in which we live. I hope the engineer who designed the bridge I cross every morning did it in a very deterministic way...

**Giovanni**

Maybe it is better to hope that our universe is one in which bridges don’t collapse. Unfortunately, we cannot (yet) move from one section of the multiverse to another...However, the split between classical physics and probabilistic/aleatory subatomic behavior seems to be similar to the way we design/transform our environment, but with the further problem that it’s no longer an issue of scale, and therefore these approaches tend to collide. In architecture, the constant requests for deterministic assurances (cost, time, performance, security…) more and more comes out of the increasing instability of programs, tasks, and opportunities. So, the observer (who we might equate with the “external conditions” in architecture) becomes the main character: the one who unintentionally decides if the cat will live or die. Quantum physics teaches us that we can manage this interactive relation only in a very paradoxical way. Should we crossbreed Schroedinger’s cat with Deng’s (which catches mice no matter if it’s black or white¹⁰)⁰?

**Alexandra**

Hey! Joker – maybe you are just a BInary digiT, not even a bug! bzzzz!

Who cares about grasping the split between two worlds that even physicists can’t explain? Asking the question is just a way to shift our egocentric viewpoint. Yes, I’ll eventually go for some laboratory cat’s experimentations... What the hell would we do without cats? They seem to be crucial to the Western world’s thinking!

-------------------------END OF PART 1--------------------------

**Giovanni**

Alexandra is right. Shifting the viewpoint is our main goal. As designers, we dream of that power we fight as citizens. So the schizoid situation between planning needs and unpredictable developments that arise in our contemporary societies is fully embedded in our practice and thinking. Hard sciences are intrinsically counterintuitive (our senses tell us that it is the sun that moves around the earth...). On the one hand, they force us to set up paradoxical strategies, using chaos to produce open and dynamic orders, looking at self-organization as a possible and more effective (and desirable) horizon. On the other hand, we do not have to prove our hypothesis—we just tell stories; science is a big reservoir from which to fish powerful devices, tools, and arguments, in order to construct opinions, to create the conditions that will make our strategies really work...
Benoit
No strategies are ethically good enough to be immune to distortion: Deleuzo-Guattarian theories are used just as well by architects as by militaries strategists, to walk through walls. Science and architecture share the same ambiguous and irrefutable relation to reality. And this relation creates frictions with unexpected results. It’s with those unexpected results that we have to deal, not as prophets (too comfortable) nor outsiders (too reassuring) nor experts (too romantic)…

Joker
Schizophrenia, paranoia; cats, rabbits, mice—are you undergoing pet therapy?

Giovanni:
Good idea! We can use animals to feed our personality disorders. Laboratory hybrids or “natural” mutations are both fine. François often talks about hermaphrodite polar bears...

François
So you know the story? [see “Nine Apparatuses: Physiological mutation.”] The five percent of mutant post-polar bears are Houellebecq’s characters—brother and sister, parent and child, female and male—modifying their comportment, adapting their sexuality, renegotiating their link to the environment. They neither deny nor emphasize global climate change; they absorb and integrate the mutation as a new protocol, as a new contract, as a Sacher-Masochian deal.

Joker
Well, well. Are you sure you want to introduce Sacher-Masoch as a value? Do you want to contractualize with the devil?

Benoit
You can do as much contractualization as you want, but the location of the deal has to be defined. From the peak of the Ras Dashen (the playground of the gods) to the Schwartz Wald; from the dark dancing of Karachi to the fuel gases of Irkutsk (all different kinds of human heat), there are infinite thresholds, entrances, gaps, lost corridors, and hidden passages where this kind of ceremony could unfold—no need to gash my thumb with a razor to ratify the pact. But first I would choose the territory, a topology that we could all agree on, and a defined area where the deal could occur. Not necessarily a comfortable or well-known place; we all know that it has little to do with pain or satisfaction, it all comes down to where the contract will be made, not even the terms, in fact. All you will remember is the place where you made it—the taste of snowflakes on your tongue, or the sweat on your flesh at the contact with the fur.

François
The Sacher-Masoch apparatus is defined by protocols; it contractualizes and defines relationships which then become the frame, the rules of the game, directly dependent on the nature of the contract. But at the same time, as a transitive process, the writing of the contract defines the condition of the instruction, which reveals the boundary between acceptance and erasure, between what is a legitimate result and what you have to re-formulate in case desires shift during the game itself. The Sacher-Masoch deal seems more contemporary than Faust’s, in which the contract calls for you to give up your independence, often in exchange for nothing. We are in a reflexive process of alienation with Sacher-Masoch, a process that invites emancipation at each step of its own evolution.

Joker
Please come on, where is architecture in these “sturm und drang” speeches? Are you actually focused on anything, or just digressing from nowhere to nowhere?

François
Well, well, you shot me, nasty Joker. But “endlessnessless” comes from this kind of apparatus, an open source system—adaptable and re-adaptable—dependent on the intrinsic and extrinsic mutation
of the system. The main question is: how do we develop open protocols, able to incorporate a wide
degree of freedom? More precisely: how could the system develop its own generative evolution to
absorb and react according to the mutation of the original parameters? From the house in the forest,
Growing up, a project from a long time ago, where the growth of the trees slowly weakened and
everually destroyed the house [Figure 1], to the robotic apparatus of I’ve heard about [Figure 2], we
always consider design as an open narrative in which the architecture is just one element, one branch
of time, a story with the possibility to rewind and fast-forward. The uncertainty of the system is
something we strive for, even by crossing to the “dark side,” by revealing the ambiguities of a
situation. Look at the opposition between the sponge geometry and Hippodamus’s master plan for
Miletus. [See “Nine Apparatuses: Planning and self-organization.”] This opposition is clear: an open
system, where the algorithm of growth cannot be reduced to a simplified relationship; and a closed
system, coming from architecture, where everything is predictable, forecasted, and frozen. In this
case, the sponge doesn’t make a deal with Sacher-Masoch or Mephisto to become what it wants to be,
but rather, it integrates the unknown of its achieved shape as a value of its own existence. This way of
understanding the sponge changes radically and politically the possibilities of production: it could
change the very role of the architect, who would become an alien child of incest between Villard de
Honnecourt and Filippo Brunelleschi.

Benoit
This cannot be only understood as a game of “possibles,” even if it has a lot to do with probabilities.
We know that even if we can prove the probability that an event would occur, and determine the
relation between two states, A and B, we will never be sure that that event is the right and only one
that will occur. To be more pragmatic, let’s take two different states of a shape in a numeric process.
Let’s say that we have a topology and a function, and that we want to find a way to move from one to
the other; we might try to do this through either 3d modeling or programming. If an unexpected or
“emergent” event occurs, the function that you conceptualized originally would be totally disrupted
(and I’m only talking here about a single input, not even about trying to input two or three relations of
cause-effect at the same time, nor even the possibility of when a calculation leads to undecidability or
several results). To introduce fictional material into a process is a way to spread “intelligence”
throughout the whole system, and it allows us to react at each step, to evolve with the project.
Biologists have been searching for decades for the pacemaker in slime molds, thinking that they
didn’t have enough information to find it, only to discover finally that there was no pacemaker, that it
was the cells themselves that have the ability to decide when to unite and when to separate.

Giovanni
In school, we were told that Brunelleschi became the first modern architect when he fired the workers
of the Duomo in Florence. Since he was the only one who knew how to build it—and the shared
knowledge of the medieval building process was not working anymore—he could hire the same men
again for less money, as an “unskilled” workforce. So, modern architecture was born from that act of
domination which followed closely the increasing complexity of social, economic, and technical
processes; complexity, in this context, refers to stratification on multiple levels (maybe someone
remembers Marx and his theory of alienation?). What is interesting today is that such multifaceted
relationships between architects and the other social agents involved in urban projects (developers,
politicians, builders, users, citizens...) have become unbelievably complex and fragmented, in such a
way that vertical control is no longer a viable approach. François is right when he says that, as
architects today, we play the role of both Villard and Filippo. The problem is where and when self-
organization and control occur. Indeterminate devices, diagram routines, open-ended scripts—these
are often strategies to define a set of conditions where we can still be architects, where our specific
knowledge still makes sense.

Joker
You both sound nostalgic for Villard and Filippo. But it is clear that there are no sacrifices we can
make to be absolved of the original sin of Modern architecture; the knowledge that made us who we are unfolds only in fascist situations: Dubai and China are now the architects’ paradises on earth...
**Giovanni**

I’m just saying that our aim is to negotiate architectural choices within indeterminate environments and vice versa. Look again, for instance, to that opposition between the sponge and the grid, where the first is the outcome of a self-organized process and the second a simple act of top-down planning. Are we sure that a sponge-like urban structure is more indeterminate that an orthogonal one? It is not just a matter of representation (organic vs. geometric) nor an issue of the design tools we use. A grid (generic) can work as the framework for very indeterminate behaviors, and a sponge (articulated) can trigger very specific local answers. I think that we should take a fractal point of view, with alternating layers (natural/artificial; Euclidean/non-Euclidean; controlled/self-organized) that depend on time, scale, 2d/3d shifts...In other words, to go beyond Villard and Filippo, we have to merge them.

**Francois**

Many sources are whispering to us, from Bernard Rudofsky’s *Architecture Without Architects*13 to Frederic Migayrou’s14 analysis of the “dispute” between Henry Van de Velde and Hermann Muthesius, between industrialization series and prototyping as the identification of uniqueness. This debate has re-actualized since the 1980s, thanks to the two bad golden boys, Steve and Bill, who democratized the tools of control and narration. Could we consider this “genetic” period today as a frozen one, a dream of the last retro-future building as a Zaha-homage-vintage-positive-white-future item, pre-designed in the sixties but constructed, strategically, half a century later?

I know it’s painful to recognize that the future drifted in an unexpected way, that it’s a lost sensation. The period of now is a time sandwiched between a predictable future which never happened and the unknown of tomorrow which is coming, day after day, something between *In the Mood for Love* and 2046 by Wong Kar-wai. This sensation of erotic dystopia, of charmed distress, of melancholy—Baudelairian spleen (according to Walter Benjamin)—is a perfect reversal of Modernity’s blossoming, when the lost paradise emerged from the non-distinction between mass production and the production of the mass, when the loss of uniqueness-value opened the door to the over-valuing of repetitions and series, disqualifying anomalies and singularities as illnesses of the system. On the contrary, the spleen of today does not come from this loss of value but from the impossibility of attributing value to uniqueness, definitively lost after the after-death experiment of Modernity.

How can we take refuge today, somewhere in a comfortable back room? The conditions of today, here and now, oscillate between “dream time” and “day after,” altered states, mixtures of schizoid ingredients, with a pinch of *A Clockwork Orange* and another from 2001: *A Space Odyssey*.15 [See “Nine Apparatuses: The dream time and day after.”] It seems difficult to simplify this reality—to reduce it to a simple game—without considering the vast array of heterogenic tools which integrate speeches, regulations, strategies, scientific protocols, games of power, and stories of self-alienation; talks, non-talks, and misunderstandings of the network, the rhizome of narration, of scenarios, the preliminary enunciation of the apparatus of an architectural item. The apparatus itself cannot be reductively defined as an architectural part, where the input and output become contingent, where ambiguities are articulated as themselves, where the protocols of transformation reveal a condition of production: nothing but Situationist strategies.16

**Alexandra**

I’d like to go back to the famous acrimonious polemic in 1914 between Muthesius—who was previously a spy for the German government while working in England at the turn of the century—and Van de Velde. Far from giving the standard romantic analysis of Nikolaus Pevsner (i.e. that Muthesius was good at the beginning and struggled to gain importance as World War I started), I’d say that the co-founder of the Deutscher Werkbund was more an idealist than Van de Velde. Individuality vs. Typology? Pros vs. Cons? Authorship vs. Standardization? I don’t think so! In terms of the economic shift, the latter was more pragmatic— which explains why Gropius, Taut, and many others followed Van de Velde and his ambiguous contradictions—but it is the former who obviously became more historically significant. Besides, the most important part of the debate resides, according to Frederic Schwartz, in the emergence of the notion of the copyright and of the artist, architect, or designer as the legal equivalent of the industrial: “Muthesius invokes a central point of copyright law:
the right of the author to have his name appear on or next to his work (or, conversely, to withhold it), even when the work is executed and sold by another party. This was the true polemical gesture of the Dresden exhibition and the source of the controversy which led to the founding of the Werkbund: the central symbol of copyright...”  

Such fascination today seems to flirt with commercial business. Is there no exit? No, the future is gone, as Ballard claims, as well as the technological potential embodied by it. I don’t think there is any legitimate space left for refuge.

**Benoit**
Yes or no, the future is gone and will never be. Climatologists are the first ones to admit that they will never be able to make truly accurate predictions, even if they someday own computers as fast as the demon of Laplace. Actually, they prepare themselves for the uncertainty of climatic changes by imagining families of scenarios. These scenarios deal not only with hierarchies, but, more interestingly, with heterarchies of information.

---------------------------END OF PART 2---------------------------

**François**
As we said, endlessless is a tool for narration and uniqueness, not for industrialization or repetition. It includes and produces scenarios of singularity, of anomaly. Endlessless redefines the “aura” of things. In a way, this narrative machine, extracted screw by screw from mass industrialization, would develop stories and principles of reality, application scripts, constructive behaviors, impermanencies, and uncertainties. This kind of post-bachelor machine—the union of the T1000 and Picabia’s Ghost—introduces a degree of ephemeral subjectivity into the tangible products of physical transformation. This is one type of ambiguity, but not the main one: in the middle of the enormous potential of prototyping applications, we are, paradoxically, fully and knowingly infiltrated by melancholy, confronted by the difficulty of giving value to “uniqueness.” It’s the lost sensation, spleen, described by Baudelaire, in perfect symmetry; as kids of Tron (computer nerds swallowed by software), we are able to create, with our technology, a prototype, rare and unique, but the genetic reason for this prototype has been digested by a Miyazaki monster and lost in the system of mass desire. It’s very strange that at a time when we could be using computational design in new, provocative, non-standard ways, the intrinsic value of this approach and its production drift and shift somewhere, away from us, into a magnetic black hole.

**Joker**
There seems to be some romanticizing going on here, against the rationalism of the Enlightenment Century and the positive aspects of the Encyclopedia. But architecture has always been thought of in this positivist way, as a vector of progressive projection. Are you, on the contrary, regressive? Are you pathologically alienated by your Faustian deal?

**François**
Do you know the sad story about the mouse dancing provocatively in front of the cat, only to be killed and eaten by it? Apparently the condition of provocation is entirely unintelligible and illogic. It seems like suicide, only with music and elegance (like making a pact with the devil). The spirit of the mouse will survive digestion by the cat...[see “Nine Apparatuses: Causality and dependencies.”] We’re talking about something that appears absurd, to a rationalist point of view—the illusion of the dance of death—but this story is still less monstrous than the causality/dependency explanation—loss of free will, loss of independent consciousness—given by neurobiological scientists.

**Benoit**
These non-linear trajectories are completely changing the way we think about many scientific and humanist fields. For example, we know now that genetic processes are not based on a linear view of time, but on causalities and a-effects (affects and effects as one thing), all of which can be paused, reversed, and fragmented. Recent research in biology might make us think that there is no
“intelligence” other than an absurd one. If you put bees and flies in a bottle, the bees will die after a few hours, exhausted by bumping into the glass, their instinct having told them to go where they see light; on the other hand, the flies will find their way out sooner or later through the neck of the bottle, their apparently erratic and uncoordinated flying being much more efficient than the bees’s. There’s a lot to say about a-effects. Yes, we can determine causal relationships by studying them, but this leads to no real knowledge or understanding. But what we call noise (or tiny music: the ventriloquist-like song of the bacteria in the mouse...) is completely transforming our understanding of physics and social phenomena.

Just because a system cannot be replicated, doesn’t mean that it’s unique. Something unique might not actually be part of our factual world. We should talk instead about variations and singularities. Monstrosities, extreme singularities, and anomalies force us to redraw the boundaries of the intelligible world, redefine the norm, rescale our tools. What is fascinating is that exactly at the same time as the debate between Muthesius and Van de Velde, a polemic strangely similar occurred between two scientists, Max Planck and Ernest Mach. Planck accused Mach of threatening the faith in the intelligible unity of the world through his historico-pragmatic vision of physics. Both Mach and Van de Velde were trying to explain anomalies, singularities in the system. As you know, Gropius—probably still under the influence of Muthesius—drew the first logo of the Bauhaus as a cathedral where all artists, scientists, and thinkers could reunite. Quite an eloquent idea, no?

Giovanni
I think we can agree that to project means to deal with causes. It may sound like an enlightenment or positivist statement, but it is a condition very hard to ignore. On the other hand, we know that deterministic actions are less and less likely to produce the effects we expect (there is a joke about a TV ad in Italy: some years ago, a spirits firm promoted its product with the adventures of a veterinarian. They didn’t sell one more bottle, but veterinary schools had a lot of new students...). Most architects try to resist the notion of indeterminacy; they see it as a threat to the core business of the discipline, i.e. authorship and formal control over buildings. But reality escapes these architects: it’s no longer possible to rule over the building process in this way. So, in the last twenty-five years, avant-garde architects shifted their struggle against the establishment from the field of language to the field of operations, choosing to explore indeterminate processes, bottom-up techniques, open-ended devices, and interactive protocols. This triggered a conceptual shift that brought proliferation—rather than composition—to the foreground. But proliferation alone is not so interesting. More interesting are the parameters of selection, the conditions with which to negotiate multiples of variations. We all love “non-pedigree” architecture because it requires of us to make intelligent selections, although we hate it in its recent market-driven, global, generic, and repetitive expressions.

One of the weaknesses of the “non-standard” approach to design (especially by the Americans) is its seeming lack of direction or, in other words, its search for novelty for its own sake, as an absolute value. It seems that many things produced in this way are simply consequences of technological possibility: answers in search of a question. These architects are like the flies in the bottle, producing large numbers of alternative solutions, waiting for something (critics, magazines, markets, clients) to select the next architectural “real thing.” It’s not so different than what happens in turbo-capitalistic developments in the East: I’ve heard that in Bangkok, they planned to build two different metro lines to serve the same area, waiting to see which one would survive...

Benoit
At R&Sie(n), those anomalies as the main focus of our practice; they’re the most fertile part: no longer part of a purely linear process of cause and effect, but a succession of frozen objects, in different states, made of their own genetic footprints. This way of working allows us to avoid a world ruled only by probabilities.

François
The bachelor machine or apparatus articulated by R&Sie(n) borrows more from the possibilities of machinism as a way to produce for subjectivity; we borrow tools from science and technology for
their ability to produce indeterminacy; we instrumentalize the failure of their positivist nature and their structural logic. This brings us back to the starting point of this conversation—the Paranoia of a little girl—and Duchamp’s reading of Xenakis’s and Le Corbusier’s Philips Pavilion, the mystification of the theory of correspondence. Deleuze and Guattari developed a strategy for subjectivity as a strategy of resistance. The subjective and the singular help them—and us—escape from the exclusive determinism of pure computational addiction.

**Benoit**
I want to talk about real-time, which is related to augmented reality. Some of our friends want to live in an illusion, a perfect simulation to the present. It leads them to believe in the precision, the efficiency, and the honesty of the tools that they have access to. Even if we can’t consider this attitude purely positivistic, it leads to a sort of scientific mysticism, understandable in what it tries to avoid but not in what it generates. The literary approach to this desire is known as “speculative fiction,” which never really works: there are always subtle shifts, small gaps with reality that allow fictions to enter, to create openings, to be instruments of transformation. Pure computational determinism protects its authors from this “risk.” It allows them to refuse speculation because they are afraid of not having full control of it. But speculation is a dynamic object: it’s always in motion; it’s subject to the Doppler Effect. But it can also be real, physical. By its taste and color, you can recognize and understand its shifting.

**Alexandra**
Let’s return to the bachelor machines. The sexual frustration embedded in the machines produces a line of thought which starts with Villiers de l’Isle-Adam’s *L’Ève future* and finds in the dystopia of R&Sie(n) machines a new trajectory. Take Raymond Roussel’s *Locus Solus or Impressions d’Afrique*, for instance. The latter was performed at the Théâtre Antoine in Paris, in 1912. The entire avant-garde, from Duchamp to Breton, attended the show. They were struck by the artifacts; it is no surprise that the sexual nature of technology became such a paradigm in their respective works. One interpretation of the bachelor machine symbolizes pure bliss through both onanism and a sexually liberating, non-repressive sadomasochist pact. The whole range of the bachelor machines borrows from the “coitus-interruptus” process, which has, as its core value, the idea of pure pleasure by preventing the deposit of sperm into the vagina, thus neutralizing the act of reproduction. The energy and tension of the Bachelor’s counter-(re)productivity, as depicted in Roussel’s novels, finds a parallel in Duchamp’s *Bride Stripped Bare by her Bachelors, even* masterpiece. Male on the bottom, female on top; no reunion, no union; they can’t mate; bachelor machines don’t give a damn for cloning or duplication… they crave pleasure, only pleasure! This bizarre rejection of progress and evolution foreshadows a loving sadomasochist relationship between men and machines. What comes next? An historical blind spot of vulnerability and pleasure! Such a legacy is necessary to bring R&Sie(n) machines to life. It is through the power of the mind that orgasm is achieved—the bride and the bachelors of Duchamp’s *Large Glass* consummate their union mentally or subconsciously: “The subconscious is a factory, a machine for production,” as Deleuze puts it. There’s a genealogy—of sluggish, desiring machines and machinations—from Duchamp to R&Sie(n).

**Francois**
For R&Sie(n), the “bachelor apparatus” is a vector of narration, like the Lyre of Orpheus, who goes down into the kingdom of Ades to bring back Eurydice, his sweetheart, and plays music to bewitch the wild animals and the devil. The apparatus creates simultaneously an operative effect and blurred logic. What kind of sound could be played? Stockhausen or Sirtaki, John Cage or *Just Like a Woman*? Simultaneously, the apparatus builds ambivalences, both in a narrative and procedural mode—as schizoid contingencies—and becomes the vector of a constructive subjectivity. To tell a story about architecture, R&Sie(n) introduces a gimmick, a MacGuffin. The mathematical formula in the movie *39 Steps*, for example, is a MacGuffin: a clue from which the story could unfold, only the story then diverges and eventually becomes independent of this clue. The Olzweg machine *[Figure 3]* is such a narrative device; a starting point for indeterminacy, for aleatory behavior, for the process of losing control in the service of unpredictable shape. The endlessness needs this narrative and operative clue
to create the condition of a further step, of an un-achievement, of an “After Death Experience:” the prolongation of the phases of construction.

For this, R&Sie(n) apparatuses are stochastic machines, psycho machines, chimera robots, speculative mechanics, anthroposophic systems, de-polluting processes, environmentalist ecosophic devices, paranoiac artificial climates for negotiating with biotope fears… The machine protocols are psychomosomachinistic: they include misunderstandings, “des malentendus,” and frustrations. The level of freedom—the degree of randomization of the behavior—develops as the corruption of the application. The script, the algorithm that drives the machine, is disrupted by internal agents written as “if, then, and while” possibilities and alternatives. But the main purpose of the apparatuses is to reveal and to release the contradictions of a given situation. They do not try to simplify preliminary complexities, but rather they define a strategy of mutation based directly on those complexities. Are they desirable and desiring, in the sense of the “Body without Organs,” from Artaud and Guattari? I hope so… Their eroticization, their sexualization, seeping from the context in which they are embedded, is part of the rhizome, avoiding panoptical unfolding. Like Pessoa, “I’m coming from before the reality.”33 The apparatuses place architecture in a space between the real and reality; fiction allows us to travel between the two.

Joker
Do I hear music? The Titanic’s endless song?

François
The nature of the music during the sinking of the Titanic is still up for debate; some survivors heard Nearer, My God to Thee and some others Alexander’s Ragtime Band. Why did some hear the sacred song of death and others the profane rage against the ideal? If you want to know, dear Joker, R&Sie(n) improvises both simultaneously. But don’t be confused; the Lyre is a decoy, a lure. The apparatus itself is a construction: part ecosophic empathy (as the recognition of an original condition); part Sacher-Masoch contract (as a rule of the game); part anthroposophic loop (as an exchange of substances); part heterotopian sensation (as the indeterminate and stochastic behavior); and part dynamic agent or Lyre, to operate the story, from Orpheus’s own hands.

Joker
Yes, yes, you got it...! The new five points!38 Is this a nightmare? You are reviving a zombie!

François
You killed me, my friend.
“I’m late, I’m late, I’m late!” said the White Rabbit. It’s time for Alice to jump into her parallel universe. Like her, now, we confuse our own paranoia with the unreality of our perception.

endless

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3 There is a genealogy of rabbits that remain to be mapped out from Fibonacci to Lewis Caroll. Its title would be Rabbits never die...
4 “The Lord whose oracle is at Delphi neither speaks nor conceals, but gives signs”, Heraclitus, fr. 93 Diels Kranz.
5 Attributed to Thales; translation: Giovanni Corbellini
7 "Le système nerveux humain est un organe d’aliénation. Il permet d’être autre chose que soi-même". Voir comment la blastula embryonnaire en s’invaginant successivement produit la structure trioblastique des 3-dermes. René Thom, Morphogenèse et imaginaire, Circé, sous la direction de Jean Buros, 1978.
9 Baruch Spinoza, Ethica ordine geometrico demonstrata, 1661-77, parte III, prop. 54.
10 The first time that Deng Xiaoping used the "cat theory" in public was in 1962, at a meeting of the Chinese Central Committee Secretariat, when discussing the "contract responsibility system" for restoring agricultural production. Curiously, at that time, the first cat was yellow...
15 Both movies were notoriously directed by Stanley Kubrick, whose first feature was Fear and Desire, 1953, with a team of soldiers trapped behind enemy lines in a fictional war...
19 The demon of Laplace (by the name of the french scientist of the 18th century who created it) was able to know, at a given moment, all the parameters of the particles of the universe. This first demon was followed by others, as the demon of Maxwell at the end of the 19th century.
20 About heterarchies, multiple disorders and scenario: there is a part of the brain called hippocamp. Depressive persons use to have less neurons and interconnectivities between those neurons in this part of the brain. It's only recently that we are able to scan the activity of the hippocamp and to understand the effect of therapies on it. The fact is that both pills and psychotherapies allow the hippocamp to reconstitute its neurons and their interconnectivities. The consequence of it are quite big, to say it fast it would mean that from Plato, through St. Augustine until all Cartesian and objectives schools of thinking, the distinction between the psyche and the soma was unfounded and untrue. On this topic see Antonio R. Damasio, Descartes’ error. Emotion, reason, and the human brain, Putnam, 1994.
21 The work of Picabia stay in the shadows of the 20th century, but his kaleidoscopic ghost is always perturbing the hierarchy of values. Here we refer to the exhibition in 1922, “Máquinas y españolas”, at the Galeries Dalmau in Barcelona.
22 Perte d’Auréole or Loss of a Halo, Charles Beaudelaire, Le Spleen de Paris, 1864.
23 Movie by Steven Lisberger, 1982.
24 The black digestive intestine in the movie of Hayao Miyazaki, Sen to Chihiro no Kamikakushi (Spirited Away), 2002.
26 And in my opinion, the absence of uniqueness does not lead to the idea of the eternal return of Friedrich Nietzsche or cycles, whatever they are.
28 Gilles Deleuze and Félix Guattari, Capitalist and Schizophrenie 1, L’anti-Œdipe, Editions de Minuit, 1972.
29 Auguste de Villiers de L’Isle-Adam, L’Ève future, 1886.
30 The famous books Impressions d’Afrique, 1910, and Locus Solus, 1914, by Roussel are part of the bachelors machines corpus delineated by Michel Carrouges or Harald Szeeman etc.
MacGuffin is a concept created by Alfred Hitchcock. It's an item which is used to trigger the intrigue. The importance of the Mac Guffin disappear with the development of the scenario, it's a pretext, an alibi to create the artefact which becomes a movie.

Corps Sans Organe, or CsO, is a concept developed by Deleuze and Guattari in *Mille Plateaux* and *Anti-Oedipe*. It's coming from a text of Antonin Artaud: “L'homme est malade parce qu'il est mal construit. Il faut se décider à le mettre à nu pour lui gratter cet animalcule qui le démange mortellement : Dieu, et avec Dieu ses organes, oui, ses organes, tous ses organes… car liez moi si vous le voulez mais il n'y a rien de plus inutile qu'un organe. Lorsque vous lui aurez fait un corps sans organes, alors, vous l'aurez délivré de tous les automatismes et rendu à sa véritable et immortelle liberté. Alors, vous lui réapprendrez à danser à l'envers comme dans le délire des bals musette, et cet envers sera son véritable endroit.”


Comments by Benoît: Of course the result of the apparatus equation is not equal to the sum of all those ingredients; it has more to do with a process of alchemy where the ingredients, when put in contact, transform themselves.

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industrialization. The apparatus includes scenarios of singularity, of anomaly, of ambivalence, and paradoxically, of melancholy, what Baudelaire called spleen in French. This machine could help us reconstruct Benjamin’s notion of aura through interwoven narrative parameters, its own uniqueness, and the internal contradictions of its own production. It’s an application tool, but it’s also a purveyor of rumors; the real function and behavior of the machine are impermanent and uncertain, which makes us doubt the principles and protocols of reality itself.

Endlessnessless

An e-mail correspondence between François Roche, Giovanni Corbellini, Alexandra Midal, Benoit Durandin, and Joker. The conversation begins as they’re looking at The Paranoia of the Little Girl, one of the Nine Apparatuses.

GIOVANNI CORBELLINI

What’s this, green monsters?

FRANÇOIS ROCHE

Which monsters, did you see monsters?
Endlessness

GIOVANNI
I think so—but if I look at them a little bit longer, they begin to look funny...

ALEXANDRA MIDAL
...From the paranoia of the two little girls. They are about to perform a productive—and not at all innocent—routine.

BENOIT DURANDIN
Never seen that; you mean, like a ritual? Like the reproduction of something itself, out of its own matrix?

ALEXANDRA
No, as a little girl myself, I saw them, I saw them (humming): "...Sometime I’d divide / And burn in many places; on the topmast, / the yards, and the boresprit, would I flame distinctly."01

JOKER
With this kind of constellation of parallel universes, are you sure it’s a book about architecture?

GIOVANNI
Who said that?

ALEXANDRA
What?

BENOIT
So this is a book about architecture?

FRANÇOIS
Nobody said otherwise.

ALEXANDRA
And why not?

GIOVANNI
So paranoia is the key?

FRANÇOIS
More than a key, it’s an “apparatus”02...

GIOVANNI
Let’s suppose now that these Hulks were real...

ALEXANDRA
But don’t threaten them; they could be like the White Rabbit.

GIOVANNI
Alice’s rabbit?

ALEXANDRA
Don’t you know? The rabbit hypnotizes you as he runs away. I’d prefer Snow White mixed with girly Victorian fairy tales. Girls are not paralyzed by the proximity of danger in the forest. Don’t you feel that slight and exciting insinuation of casual sadism? I do!

BENOIT
I feel like time is freezing, like being sucked up. Look at their paws! They’re leaving trails everywhere, bloody
and green fluorescent footsteps. It looks like—I don’t know what...a passage maybe? Now it looks like letters...I don’t know if...

JOKER
You fools! All I see is a hairball, pushed by the wind.

BENOIT
Yes, but it’s pushed by Eolos, the god of winds. “The thought is faster: it runs through everything.” Look at the trajectory; it’s so erratic, full of noises, searching for the next movement, winding and winding and winding, writing on itself. Writing against architecture. Maybe we have woken up the acophilous man, made of bones, guts, and nerves: mesoderm, endoderm, and ectoderm all folded together.

FRANÇOIS
Think of it in a paranoid sense, as an apparatus: open to a wide array of interpretations, from self-illusion to freak 3D effects. We could consider this “moment” as the first apparatus, or, more precisely, how strategies of relationships embedded in this moment articulate knowledge and are simultaneously articulated by themselves. The two little girls are looking at the consequence of their own paranoia, which transforms, at the same time, the representation of our reality. By creating a subjective narrative, they articulate the dichotomy between fiction and reality, which forces us to reconsider our relationship to the tangible, material world. We are directly confronting the boundaries of the system, where, from this seemingly scripted confusion emerges an apparatus which reveals the boundarylessness of the self-conscious...

ALEXANDRA
This is not so different than déjà vu: when you are convinced you have already lived an identical moment at another time. If you ignore the rationalist approach to this phenomenon—what scientists describe as a breach or alteration in the synchronization of the brain’s hemispheres—déjà vu is actually a shift of perception. And if you buy the idea that it’s an inexplicable collision between many parallel universes, like Henri Bergson—who dedicated one of his rare pertinent essays to the question of Le Souvenir du présent et la fausse reconnaissance—you’ll find elucidated what might be called a weakening of “the function of reality”: you get a momentary unfolding of the person. Something like the famous paradox set up by the physicist Ernst Schrödinger in 1937. He thought up an experiment in which a cat, a radioactive particle, a mechanism made up of a Geiger counter, a hammer, and a vial of lethal gas were locked in a closed box. If the atom disintegrated during a given time, the counter would be activated, then the hammer, which would break the vial, then the gas would escape from it, and the cat would die. In a space ruled by the laws of classical physics, there is as much probability that the atom would disintegrate as that it would not. According to the laws of quantum physics, two possibilities superimpose one another; the atom is simultaneously activated and disintegrated; the cat is subjected to a state of uncertainty, at the same time both dead and alive. This simultaneity is only completed at the instant when an outside individual observes the interior of the box... This principle, which dominates the subatomic and unknown parts of our universe, implies the co-emergence of two or more worlds simultaneously; so-called parallel worlds. No future,
no present, no reality? "Pick up the world, you can!" could be the White Rabbit's motto.

**BENOIT**

It sounds like a Spinozian motto: "The mind endeavors to conceive only such things as assert its power of activity." Quantum physicists used to explain quanta theories through short stories, fairytales, in a way to transpose what they saw into something else, less astonishing and more accessible. "Four fishes are swimming in a pool, two floodgates open simultaneously on two other pools, at the end four fishes are swimming in the two new pools." This parable is logical in a quantum sense, pertinent to an established field of research, and accessible to cognition: three requirements for any scientific knowledge. It also reveals the contortions that physicists often have to make themselves to understand quantum properties. They have to reintroduce non-crazy hypotheses (or theories) back into the field of common knowledge (i.e. fairytales), but as a result, those non-crazy hypotheses become transformative in their own right.

**JOKER**

Quantum physics is about the ultra-small scale. What happens to subatomic particles doesn't have much to do with the actual world in which we live. I hope the engineer who designed the bridge I cross every morning did it in a very deterministic way...

**GIOVANNI**

Maybe it is better to hope that our universe is one in which bridges don't collapse. Unfortunately, we cannot (yet) move from one section of the multiverse to another... However, the split between classical physics and probabilistic/aleatory subatomic behavior seems to be similar to the way we design/transform our environment, but with the further problem that it's no longer an issue of scale, and therefore these approaches tend to collide. In architecture, the constant requests for deterministic assurances (cost, time, performance, security) more and more comes out of the increasing instability of programs, tasks, and opportunities. So, the observer (who we might equate with the "external conditions" in architecture) becomes the main character: the one who unintentionally decides if the cat will live or die. Quantum physics teaches us that we can manage this interactive relation only in a very paradoxical way. Should we crossbreed Schrödinger's cat with Deng's (which catches mice no matter if it's black or white)?

**ALEXANDRA**

Hey! Joker—maybe you are just a Binary digit, not even a bug! Bzzzz! Who cares about grasping the split between two worlds that even physicists can't explain? Asking the question is just a way to shift our egocentric viewpoint. Yes, I'll eventually go for some laboratory cat's experimentations... What the hell would we do without cats? They seem to be crucial to the Western world's thinking!

**GIOVANNI**

Alexandra is right. Shifting the viewpoint is our main goal. As designers, we dream of that power we fight as citizens. So the schizoid situation between planning needs and unpredictable developments that arise in our contemporary societies is fully embedded in our practice and thinking. Hard sciences
are intrinsically counterintuitive (our senses tell us that it is the sun that moves around the earth...). On the one hand, they force us to set up paradoxical strategies, using chaos to produce open and dynamic orders, looking at self-organization as a possible and more effective (and desirable) horizon. On the other hand, we do not have to prove our hypothesis—we just tell stories; science is a big reservoir from which to fish powerful devices, tools, and arguments, in order to construct opinions, to create the conditions that will make our strategies really work...

BENOIT
No strategies are ethically good enough to be immune to distortion: Deleuze-Guattarian theories are used just as well by architects as by military strategists, to walk through walls.11 Science and architecture share the same ambiguous and irrefutable relation to reality. And this relation creates frictions with unexpected results. It's with those unexpected results that we have to deal, not as prophets (too comfortable), nor outsiders (too reassuring), nor experts (too romantic)...

JOKER
Schizophrenia, paranoia; cats, rabbits, mice—are you undergoing pet therapy?

GIOVANNI
Good idea! We can use animals to feed our personality disorders. Laboratory hybrids or “natural” mutations are both fine. François often talks about hermaphrodite polar bears...

FRANÇOIS
So you know the story? [See “Nine Apparatuses: Physiological mutation.”] The five percent of mutant post-polar bears are Houellebecq’s characters—brother and sister, parent and child, female and male—modifying their comportment, adapting their sexuality, renegotiating their link to the environment. They neither deny nor emphasize global climate change; they absorb and integrate the mutation as a new protocol, as a new contract, as a Sacher-Masochian deal.

JOKER
Well, well. Are you sure you want to introduce Sacher-Masoch as a value? Do you want to contractualize with the devil?

continued on p. 127
G. Corbellini, F. Roche, A. Midal, B. Durandin, and Joker

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BENOIT
You can do as much contractualization as you want, but the location of the deal has to be defined. From the peak of the Ras Dashen (the playground of the gods) to the Schwartz Wald; from the dark dancing of Karachi to the fuel gases of Irkutsk (all different kinds of human heat), there are infinite thresholds, entrances, gaps, lost corridors, and hidden passages where this kind of ceremony could unfold—no need to gash my thumb with a razor to ratify the pact. But first I would choose the territory, a topology that we could all agree on, and a defined area where the deal could occur. Not necessarily a comfortable or well-known place; we all know that it has little to do with pain or satisfaction, it all comes down to where the contract will be made, not even the terms, in fact. All you will remember is the place where you made it—the taste of snowflakes on your tongue, or the sweat on your flesh at the contact with the fur.

FRANÇOIS
The Sacher-Masoch apparatus is defined by protocols; it contractualizes and defines relationships which then become the frame, the rules of the game, directly dependent on the nature of the contract. But at the same time, as a transitive process, the writing of the contract defines the condition of the instruction, which reveals the boundary between acceptance and erasure, between what is a legitimate result and what you have to reformulate in case desires shift during the game itself. The Sacher-Masoch deal seems more contemporary than Faust’s, in which the contract calls for you to give up your independence, often in exchange for nothing. We are in a reflexive process of alienation with Sacher-Masoch, a process that invites emancipation at each step of its own evolution.

JOKER
Please come on, where is architecture in these “sturm und drang” speeches? Are you actually focused on anything, or just digressing from nowhere to nowhere?

FRANÇOIS
Well, well, you shot me, nasty Joker. But “endlessnessless” comes from this kind of apparatus, an open source system-adaptable and re-adaptable-dependent on the intrinsic and extrinsic mutation of the system. The main question is: how do we develop open protocols that are able to incorporate a wide degree of freedom? More precisely: how could the system develop its own generative evolution to absorb and react according to the mutation of the original parameters? From the house in the forest, Growing up, a project from a long time ago, where the growth of the trees slowly weakened and eventually destroyed the house, Fig. 01 to the robotic apparatus of I’ve heard about, Fig. 02, we always consider design as an open narrative in which the architecture is just one element, one branch of time, a story with the possibility to rewind and fast-forward. The uncertainty of the system is something we strive for, even by crossing to the “dark side,” by revealing the ambiguities of a situation. Look at the opposition between the sponge geometry and Hippodamus’s master plan for Miletus. [See “Nine Apparatuses: Planning and self-organization.”] This opposition is clear: an open system, where the algorithm of growth cannot be reduced to a simplified relationship; and a closed system,
Endlessnessless

coming from architecture, where everything is predictable, forecasted, and frozen. In this case, the sponge doesn't make a deal with Sacher-Masoch or Mephisto to become what it wants to be, but rather, it integrates the unknown of its achieved shape as a value of its own existence. This way of understanding the sponge changes the possibilities of production radically and politically: it could change the very role of the architect, who would become an alien child of incest between Villard de Honnecourt and Filippo Brunelleschi.

BENOIT

This cannot be only understood as a game of "possibles," even if it has a lot to do with probabilities. We know that even if we can prove the probability that an event would occur, and determine the relation between two states, A and B, we will never be sure that that event is the right and only one that will occur. To be more pragmatic, let's take two different states of a shape in a numeric process. Let's say that we have a topology and a function, and that we want to find a way to move from one to the other; we might try to do this through either 3D modeling or programming. If an unexpected or "emergent" event occurs, the function that you conceptualized originally would be totally disrupted (and I'm only talking here about a single input, not even about trying to input two or three relations of cause-effect at the same time, nor even the possibility of when a calculation leads to undecidability or several results). To introduce fictional material into a process is a way to spread "intelligence" throughout the whole system, and it allows us to react at each step, to evolve with the project. Biologists have been searching for decades for the pacemaker in slime molds, thinking that they didn't have enough information to find it, only to discover finally that there was no pacemaker, that it was the cells themselves that have the ability to decide when to unite and when to separate. 12

GIOVANNI

In school, we were told that Brunelleschi became the first modern architect when he fired the workers of the Duomo in Florence. Since he was the only one who knew how to build it—and the shared knowledge of the medieval building process was not working anymore—he could hire the same men again for less money, as an "unskilled" workforce. So, modern architecture was born from that act of domination which followed closely the increasing complexity of social, economic, and technical processes; complexity, in this context, refers to stratification on multiple levels (maybe someone remembers Marx and his theory of alienation?). What is interesting today is that such multifaceted relationships between architects and the other social agents involved in urban projects (developers, politicians, builders, users, citizens...) have become unbelievably complex and fragmented, in such a way that vertical control is no longer a viable approach. François is right when he says that, as architects today, we play the role of both Villard and Filippo. The problem is where and when self-organization and control occur. Indeterminate devices, diagram routines, open-ended scripts—these are often strategies to define a set of conditions where we can still be architects, where our specific knowledge still makes sense.

JOKER

You both sound nostalgic for Villard and Filippo. But it is clear that there are no sacrifices we can make to be absolved
of the original sin of Modern architecture; the knowledge that made us who we are unfolds only in fascist situations: Dubai and China are now the architects’ paradises on earth...

GIOVANNI
I’m just saying that our aim is to negotiate architectural choices within indeterminate environments and vice versa. Look again, for instance, to that opposition between the sponge and the grid, where the first is the outcome of a self-organized process and the second a simple act of top-down planning. Are we sure that a sponge-like urban structure is more indeterminate than an orthogonal one? It is not just a matter of representation (organic vs. geometric), nor an issue of the design tools we use. A grid (generic) can work as the framework for very indeterminate behaviors, and a sponge (articulated) can trigger very specific local answers. I think that we should take a fractal point of view, with alternating layers (natural/artificial; Euclidean/non-Euclidean; controlled/self-organized) that depend on time, scale, 2D/3D shifts... In other words, to go beyond Villard and Filippo, we have to merge them.

FRANÇOIS
Many sources are whispering to us, from Bernard Rudofsky’s Architecture Without Architects to Frederic Migayrou’s analysis of the “dispute” between Henry Van de Velde and Hermann Muthesius, between industrialization series and prototyping as the identification of uniqueness. This debate has re-actualized since the 1980s, thanks to the two bad golden boys, Steve and Bill, who democratized the tools of control and narration. Could we consider this “genetic” period today as a frozen one, a dream of the last retro-future building as a Zaha-homage-vintage-positive-white-future item, pre-designed in the sixties but constructed, strategically, half a century later?

I know it’s painful to recognize that the future drifted in an unexpected way, that it’s a lost sensation. The period of now is a time sandwiched between a predictable future which never happened and the unknown of tomorrow which is coming, day after day, something between In the Mood for Love and 2046 by Wong Kar-wai. This sensation of erotic dystopia, of charmed distress, of melancholy-Baudelaian spleen (according to Walter Benjamin)–is a perfect reversal of Modernity’s blossoming, when the lost paradise emerged from the non-distinction between mass production and the production of the mass, when the loss of uniqueness-value opened the door to the over-valuing of repetitions and series, disqualifying anomalies and singularities as illnesses of the system. On the contrary, the spleen of today does not come from this loss of value but from the impossibility of attributing value to uniqueness, definitively lost after the after-death experiment of Modernity.

How can we take refuge today, somewhere in a comfortable back room? The conditions of today, here and now, oscillate between “dream time” and “day after,” altered states, mixtures of schizoid ingredients, with a pinch of A Clockwork Orange and another from 2001: A Space Odyssey. [See “Nine Apparatuses: The dream time and day after.”] It seems difficult to simplify this reality—to reduce it to a simple game–without considering the vast array of heterogenic tools which integrate speeches, regulations, strategies, scientific protocols, games of power, and stories of self-alienation; talks, non-talks, and misunderstandings of the network, the rhizome of narration,
of scenarios, the preliminary enunciation of the apparatus of an architectural item. The apparatus itself cannot be reductively defined as an architectural part, where the input and output become contingent, where ambiguities are articulated as themselves, where the protocols of transformation reveal a condition of production: nothing but Situationist strategies.  

ALEXANDRA

I'd like to go back to the famous acrimonious polemic in 1914 between Muthesius—who was previously a spy for the German government while working in England at the turn of the century—and Van de Velde. Far from giving the standard romantic analysis of Nikolaus Pevsner (i.e. that Muthesius was good at the beginning and struggled to gain importance as World War I started), I'd say that the co-founder of the Deutscher Werkbund was more an idealist than Van de Velde. Individuality vs Typology? Pros vs Cons? Authorship vs Standardization? I don't think so! In terms of the economic shift, the latter was more pragmatic—which explains why Gropius, Taut, and many others followed Van de Velde and his ambiguous contradictions—but it is the former who obviously became more historically significant. Besides, the most important part of the debate resides, according to Frederic Schwartz, in the emergence of the notion of the copyright and of the artist, architect, or designer as the legal equivalent of the industrial: "Muthesius invokes a central point of copyright law: the right of the author to have his name appear on or next to his work (or, conversely, to withhold it), even when the work is executed and sold by another party. This was the true polemical gesture of the Dresden exhibition and the source of the controversy which led to the founding of the Werkbund: the central symbol of copyright..."  

Such fascination today seems to flirt with commercial business. Is there no exit? No, the future is gone, as Ballard claims, as well as the technological potential embodied by it. I don't think there is any legitimate space left for refuge.

BENOIT

Yes or no, the future is gone and will never be. Climatologists are the first ones to admit that they will never be able to make truly accurate predictions, even if they someday own computers as fast as the demon of Laplace. Actually, they prepare themselves for the uncertainty of climatic changes by imagining families of scenarios. These scenarios deal not only with hierarchies, but, more interestingly, with heterarchies of information.  

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Endlessness

continued from p. 130

FRANÇOIS

As we said, endlessness is a tool for narration and uniqueness, not for industrialization or repetition. It includes and produces scenarios of singularity, of anomaly. Endlessness redefines the “aura” of things. In a way, this narrative machine, extracted screw by screw from mass industrialization, would develop stories and principles of reality, application scripts, constructive behaviors, impermanencies, and uncertainties. This kind of post-bachelor machine—the union of the TI000 and Picabia’s ghost21—introduces a degree of ephemeral subjectivity into the tangible products of physical transformation. This is one type of ambiguity, but not the main one: in the middle of the enormous potential of prototyping applications, we are, paradoxically, fully and knowingly infiltrated by melancholy, confronted by the difficulty of giving value to “uniqueness.” It’s the lost sensation, spleen, described by Baudelaire,22 in perfect symmetry; as kids of Tron23 (computer nerds swallowed by software), we are able to create, with our technology, a prototype, rare and unique, but the genetic reason for this prototype has been digested by a Miyazaki24 monster and lost in the system of mass desire. It’s very strange that at a time when we could be using computational design in new, provocative, non-standard ways, the intrinsic value of this approach and its production drift and shift somewhere, away from us, into a magnetic black hole.

JOKER

There seems to be some romanticizing going on here, against the rationalism of the Enlightenment Century and the positive aspects of the Encyclopedia. But architecture has always been thought of in this positivist way, as a vector of progressive projection. Are you, on the contrary, regressive? Are you pathologically alienated by your Faustian deal?

FRANÇOIS

Do you know the sad story about the mouse dancing provocatively in front of the cat, only to be killed and eaten by it? Apparently the condition of provocation is entirely unintelligible and illogic. It seems like suicide, only with music and elegance (like making a pact with the devil). The spirit of the mouse will survive digestion by the cat...[see “Nine Apparatuses: Causality and dependencies.”] We’re talking about something that appears absurd, to a rationalist point of view—the illusion of the dance of death—but this story is still less monstrous than the causality/dependency explanation—loss of free will, loss of independent consciousness—given by neurobiological scientists.

BENOIT

These non-linear trajectories are completely changing the way we think about many scientific and humanist fields. For example, we know now that genetic processes are not based on a linear view of time, but on causalities and a-effects (affects and effects as one thing), all of which can be paused, reversed, and fragmented. Recent research in biology might make us think that there is no “intelligence” other than an absurd one.25 If you put bees and flies in a bottle, the bees will die after a few hours, exhausted by bumping into the glass, their instinct having told them to go where they see light; on the other hand, the flies will find their way out sooner or later through
the neck of the bottle, their apparently erratic and uncoordinated flying being much more efficient than that of the bees. There's a lot to say about α-effects. Yes, we can determine causal relationships by studying them, but this leads to no real knowledge or understanding. But what we call noise (or tiny music: the ventriloquist-like song of the bacteria in the mouse...) is completely transforming our understanding of physics and social phenomena.

Just because a system cannot be replicated doesn't mean that it's unique. Something unique might not actually be part of our factual world. We should talk instead about variations and singularities. Monstrosities, extreme singularities, and anomalies force us to redraw the boundaries of the intelligible world, redefine the norm, rescale our tools. What is fascinating is that exactly at the same time as the debate between Muthesius and Van de Velde, a strangely similar polemic occurred between two scientists, Max Planck and Ernst Mach. Planck accused Mach of threatening the faith in the intelligible unity of the world through his historicist-pragmatic vision of physics. Both Mach and Van de Velde were trying to explain anomalies, singularities in the system. As you know, Gropius—probably still under the influence of Muthesius—drew the first logo of the Bauhaus as a cathedral where all artists, scientists, and thinkers could reunite. Quite an eloquent idea, no?

GIOVANNI

I think we can agree that to project means to deal with cause-effect relationships. It may sound like an enlightenment or positivist statement, but it is a condition very hard to ignore. On the other hand, we know that deterministic actions are less and less likely to produce the effects we expect (there is a joke about a TV ad in Italy: some years ago, a spirits firm promoted its product with the adventures of a veterinarian. They didn't sell one more bottle, but veterinary schools had a lot of new students...). Most architects try to resist the notion of indeterminacy; they see it as a threat to the core business of the discipline, i.e. authorship and formal control over buildings. But reality escapes these architects: it's no longer possible to rule over the building process in this way. So, in the last twenty-five years, avant-garde architects shifted their struggle against the establishment from the field of language to the field of operations, choosing to explore indeterminate processes, bottom-up techniques, open-ended devices, and interactive protocols. This triggered a conceptual shift that brought proliferation—rather than composition—to the foreground. But proliferation alone is not so interesting. More interesting are the parameters of selection, the conditions with which to negotiate multiples of variations. We all love "non-pedigree" architecture because it requires of us to make intelligent selections, although we hate it in its recent market-driven, global, generic, and repetitive expressions.

One of the weaknesses of the "non-standard" approach to design (especially by the Americans) is its seeming lack of direction or, in other words, its search for novelty for its own sake, as an absolute value. It seems that many things produced in this way are simply consequences of technological possibility: answers in search of a question. These architects are like the flies in the bottle, producing large numbers of alternative solutions, waiting for something (critics, magazines, markets, clients) to select the next architectural "real thing." It's not so different than what happens in turbo-capitalistic developments in the East: I've heard that

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See Migayrou, Architectures non standard.
in Bangkok, they planned to build two different metro lines to serve the same area, waiting to see which one would survive...

**BENOIT**

At R&S(n), those anomalies as the main focus of our practice; they’re the most fertile part: no longer part of a purely linear process of cause and effect, but a succession of frozen objects, in different states, made of their own genetic footprints. This way of working allows us to avoid a world ruled only by probabilities.

**FRANÇOIS**

The bachelor machine or apparatus articulated by R&S(n) borrows more from the possibilities of machinism as a way to produce for subjectivity; we borrow tools from science and technology for their ability to produce indeterminacy; we instrumentalize the failure of their positivist nature and their structural logic. This brings us back to the starting point of this conversation—the paranoia of a little girl—and Duchamp’s reading of Xenakis’s and Le Corbusier’s Philips Pavilion, the mystification of the theory of correspondence. Deleuze and Guattari developed a strategy for subjectivity as a strategy of resistance. The subjective and the singular help them—and us—escape from the exclusive determinism of pure computational addiction.

**BENOIT**

I want to talk about real-time, which is related to augmented reality. Some of our friends want to live in an illusion, a perfect simulation to the present. It leads them to believe in the precision, the efficiency, and the honesty of the tools that they have access to. Even if we can’t consider this attitude purely positivistic, it leads to a sort of scientific mysticism, understandable in what it tries to avoid but not in what it generates. The literary approach to this desire is known as “speculative fiction,” which never really works: there are always subtle shifts, small gaps with reality that allow fictions to enter, to create openings, to be instruments of transformation. Pure computational determinism protects its authors from this “risk.” It allows them to refuse speculation because they are afraid of not having full control of it. But speculation is a dynamic object: it’s always in motion; it’s subject to the Doppler Effect. But it can also be real, physical. By its taste and color, you can recognize and understand its shifting.

**ALEXANDRA**

Let’s return to the bachelor machines. The sexual frustration embedded in the machines produces a line of thought which starts with Villiers de l’Isle-Adam’s L’Éve future and finds in the dystopia of R&S(n) machines a new trajectory. Take Raymond Roussel’s Locus Solus or Impressions d’Afrique, for instance. The latter was performed at the Théâtre Antoine in Paris, in 1912. The entire avant-garde, from Duchamp to Breton, attended the show. They were struck by the artifacts; it is no surprise that the sexual nature of technology became such a paradigm in their respective works. One interpretation of the bachelor machine symbolizes pure bliss through both onanism and a sexually liberating, non-repressive sadomasochist pact. The whole range of the bachelor machines borrows from the “coitus-interruptus” process, which has, as its core value, the idea of pure pleasure by preventing the deposit of sperm into the vagina, thus neutralizing the act of reproduction.
G. Corbellini, F. Roche, A. Midal, B. Durandin, and Joker

The energy and tension of the Bachelor's counter-(re)productivity, as depicted in Roussel's novels, finds a parallel in Duchamp's Bride Stripped Bare by her Bachelors, even masterpiece. Male on the bottom, female on top; no reunion, no union; they can't mate; bachelor machines don't give a damn for cloning or duplication—they crave pleasure, only pleasure! This bizarre rejection of progress and evolution foreshadows a loving sadomasochist relationship between men and machines. What comes next? An historical blind spot of vulnerability and pleasure! Such a legacy is necessary to bring R&Sie(n) machines to life. It is through the power of the mind that orgasm is achieved—the bride and the bachelors of Duchamp's Large Glass consummate their union mentally or subconsciously: "The subconscious is a factory, a machine for production," as Deleuze puts it. There's a genealogy of sluggish, desiring machines and machinations—from Duchamp to R&Sie(n).

FRANÇOIS
For R&Sie(n), the "bachelor apparatus" is a vector of narration, like the Lyre of Orpheus, who goes down into the kingdom of Ades to bring back Eurydice, his sweetheart, and plays music to bewitch the wild animals and the devil. The apparatus creates simultaneously an operative effect and blurred logic. What kind of sound could be played? Stockhausen or Sirtaki, John Cage or Just Like a Woman? Simultaneously, the apparatus builds ambivalences, both in a narrative and procedural mode—as schizoid contingencies—and becomes the vector of a constructive subjectivity. To tell a story about architecture, R&Sie(n) introduces a gimmick, a MacGuffin. The mathematical formula in the movie The 39 Steps, for example, is a MacGuffin: a clue from which the story could unfold, only the story then diverges and eventually becomes independent of this clue. The Olzwege machine is such a narrative device; a starting point for indeterminacy, for aleatory behavior, for the process of losing control in the service of unpredictable shape. The endlessness needs this narrative and operative clue to create the condition of a further step, of an un-achievement, of an "After Death Experience:" the prolongation of the phases of construction.

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MacGuffin is a concept created by Alfred Hitchcock. In film, it's something—an object, a clue, a sound—used to trigger the intrigue. The importance of the MacGuffin disappears as the scene develops; it is a pretext, an allibi to create the artifact which becomes a movie.

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Fig. 03
Olzwege, R&Sie(n).
Endlessness

For this, R&Sie(n) apparatuses are stochastic machines, psycho machines, chimera robots, speculative mechanics, anthroposophic systems, de-polluting processes, environmentalist ecosophic devices, paranoiac artificial climates for negotiating with biotope fears. The machine protocols are psychomassomachinistic: they include misunderstandings, "des malertendus," and frustrations. The level of freedom—the degree of randomization of the behavior—develops as the corruption of the application. The script, the algorithm that drives the machine, is disrupted by internal agents written as "if, then, and while" possibilities and alternatives. But the main purpose of the apparatuses is to reveal and to release the contradictions of a given situation. They do not try to simplify preliminary complexities, but rather they define a strategy of mutation based directly on those complexities. Are they desirable and desiring, in the sense of the "Body without Organs," from Artaud and Guattari? I hope so... Their eroticization, their sexualization, seeping from the context in which they are embedded, is part of the rhizome, avoiding panoptical unfolding. Like Pessoa, "I'm coming from before the reality." The apparatuses place architecture in a space between the real and reality: fiction allows us to travel between the two.

JOKER

Do I hear music? The Titanic's endless song?

FRANÇOIS

The nature of the music during the sinking of the Titanic is still up for debate; some survivors heard "Nearer, My God to Thee" and some others, "Alexander's Ragtime Band." Why did some hear the sacred song of death and others the profane rage against the ideal? If you want to know, dear Joker, R&Sie(n) improvises both simultaneously. But don't be confused; the Lyre is a decoy, a lure. The apparatus itself is a construction: part ecosophic empathy (as the recognition of an original condition); part Sacher-Masoch contract (as a rule of the game); part anthroposophic loop (as an exchange of substances); part heterotopian sensation (as the indeterminate and stochastic behavior); and part dynamic agent or Lyre, to operate the story, from Orpheus' own hands.

JOKER

Yes, yes, you got it...! The new five points! Is this a nightmare? You are reviving a zombie!

FRANÇOIS

You killed me, my friend.
"I'm late, I'm late, I'm late!" said the White Rabbit. It's time for Alice to jump into her parallel universe. Like her, now, we confuse our own paranoia with the unreality of our perception.

endless