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# What Arakawa Did

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*This talk was written for the AG3 Conference in the spring of 2010. There were daily online discussions of their work (March 12-26) and a culminating face-to-face celebration and visit to the Bioscleave house in New York (April 30-May 2). We knew Arakawa was ill, and he did not appear at the Conference. We did not know how ill. I sat next to Madeline at the April 30 session at Barnard, and she grasped my forearm, during several of the presentations, squeezing as if she were in pain. It was clear that things were not well. Arakawa died on May 18.*

*These notes are for Madeline. In memory of Arakawa. The work of AG and the community continues, as long as any of us are standing.*

1. Arakawa and Gins are the most generous of artists, forever looking for co-conspirators.
2. One gets phone calls from Madeline. "Hi, are you well enough to talk? How are we going to not to die?"
3. You're immediately on your toes.
4. Arakawa and Gins are masters. They fill their vision not with concepts or images but with viable procedures. Not much space is left over. Their writings and their buildings require little of us but our moving attentions and our moving bodies. I like getting the phone calls. This is the real shit. But it is hard to enter the collaboration. You have to think about the hardest

things, whilst on your tippy-toes, and the whole Earth is trying to make you fall over.

5. But let me take an easy stance on flat feet for a moment and try to assess where we are.
6. Where and how do we enter Arakawa and Gins? The formal condition of the global data site has changed utterly since they began their collaboration, and they have been, in part, makers of that change, not mere followers of it.
7. For the dying ones, symmetry is the first claim and necessity of knowledge: for earth there is sky; for land, there is ocean; for subject there is object; for every distinguished this, there is that. It was a recursive shuffle from the beginning. There was nothing really there but the will to name a difference that named its own naming. No one has ever been much more than a bunch of free-floating and mottled ideas.
8. Oedipus, Socrates, Jesus, mathematical group theory, and most of literature and art figure forth the tragic symmetry. We come from a species that has a long history of self-loathing and death-loving. Our ancestors hoped to deal for an immortality something like the immortality of geometry. It was a tedious heaven, if they accomplished it; one hung out with the polyhedrons.
9. Arakawa and Gins break the symmetry: *for life, there is not death, but life.*
10. In the bombastic architecture of this building we are in, we spiral symmetrically upward on a ramp graded by a differential equation, and run headlong and unceremoniously into a fatal wall on the seventh floor. [1] The bioscleave house is a cell of a city that goes on forever outward toward adjacent stability and possible continuation, where the body appears at last.
11. I contrast the symmetrical *image* of not dying in the neo-Platonic, stained glass windows of Sainte-Chapelle in Paris with the *practice* of not dying in the bioscleave. The dome of many-colored glass is beyond all practice. One throws oneself into the symmetrical arms of god.

12. The history of philosophy is the history of symmetry. The generalized imperative was announced by the Pythagoreans and remained the overwhelming constant until the present decade. Evariste Galois generalized symmetry in group theory in 1831, and the generalization was finally fully elaborated, in a massive collaborative effort to complete the so-called "enormous theorem," in the 1980s. The intuition of group theory - that *things are the same no matter how you look at them* - yields a vast array of possibilities.
13. E. T. Bell noted that in both mathematics and physics, "Whenever groups disclosed themselves, or could be introduced, simplicity crystallized out of chaos." Quantum physicists, for example, find new sub-atomic particles not by working in the laboratory but by dreaming on the catalog of all possible symmetries.
14. Consider Jean Piaget on group theory: "When a property is arrived at by abstraction in the ordinary sense of the word, 'drawn out' from things which have the property, it does, of course, tell us something about these things, but the more general the property, the thinner and less useful it usually is. Now the group concept or property is obtained, not by this sort of abstraction, but by a mode of thought characteristic of modern mathematics and logic - 'reflective abstraction' - which does not derive properties from things but from our ways of acting on things, the operations we perform on them" (Piaget 1971: 19). Already, group theory was beyond all previous practice.
15. Daniel Hillis - the theorist of parallel computing - speaks of a still higher order of abstraction: "over and over again, at many levels... Functional abstraction is what decouples the ideas from the technology... the true power of the computer is that it is capable of manipulating not just the expression of ideas but also the ideas themselves" (1999: ix-xi). Abstraction decouples ideas from the technology, from the medium, from writing, from the Internet, from consciousness and the data site. It is the formal architectures of the last thirty years we speak of. The procedural modules do

not require coherence among themselves. It is only necessary that the forms work in their black boxes and can exchange inputs and outputs with other black boxes.

16. From the Pythagoras to Alfred North Whitehead, there was no known abstraction so abstract as to escape the system of the universe, and literary-artistic modernism was the conservative reaction against the premonition of emerging, free-standing forms. Our abilities to make concrete prophesy are meager, but we see forms coming well in advance. We live them before we know what they are. We escape the system of the universe.
17. The nervous reaction against the coming forms kicked in fifty years or more before they appeared in practice. The ghost dance was announced in Ezra Pound's diktat, "Go in fear of abstraction," and Williams Carlos Williams' poetic know-nothingism, "No ideas but in things." Abstract knowing was to be driven back to dada goofiness and surrealist dreams. Phenomenologists, materialist Marxists, and psychoanalysts froze on the vertiginous heights of universal symmetry and group theory. The personal will confused itself with the universal will, and history entered the eternal recurrence of the same. It was, however, not the cosmos that recurred but the philosophic history of the nineteenth century.
18. Trying to manage the twenty-first century data flow with nineteenth-century concepts, the global cultural, political, and economic institutions fall into dysfunction and corruption. We have to worry not only about the connective tissues in our bodies. Things are dangerously, perhaps fatally, screwed up.
19. Piaget explicitly called out the "corrosive intelligence" of Michel Foucault as a second generation modernist who attempted to return abstraction to the "enigmatic insistency" of the word, as the first generation of modernists, such as Ezra Pound and William Carlos Williams, attempted to return abstraction to the radiant, concrete object. Foucault seemed to have no notion of reflective abstraction. Certainly he had no notion of functional abstraction.

He missed the foremost formal discoveries of the nineteenth and twentieth centuries.

20. Thus, by default, Foucault claimed hierarchical authority for his prohibition of hierarchy: “Develop action, thought, and desires by proliferation, juxtaposition, and disjunction, and not by subdivision and pyramidal hierarchization” (Foucault 1983: xiii). It was the paradox by which liberal democracy circumvented, or tried to circumvent, fascism.
21. Foucault was correct about the necessity of exiting hierarchy. It is necessary to exit, however, not at the bottom, but at the top.
22. To exit hierarchy at the bottom is to succumb to Sado-Masochism and Thanatos or worse, to become Death itself: stupid barbarism or terrorism and militarism, all of the forms of the unformed and unformable, the uninformed – mere matter-energy machines, for which hierarchy holds absolute but unconscious and absurd, sway.
23. The knowing that unlocks the secret of the universe and gives access to god’s system makes it communicants into god’s fools. God’s knowledge is worthless for us. He is eternal, and we are not. It is possible to negotiate with god for freedom, but it is absurd freedom: you know everything – all of logic, all of grammar – but only because you are yourself a bottom-feeder of the unconscious.

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24. Inside the Great Form, life and death are in love, wedded and one flesh. It was still possible in the nineteenth century to account for the asymmetries as irony and harmony stretched to its limit in the music of Wagner. From Hegel to Nietzsche, irony was beaten into airy thinness. The asymmetries were, however, native to the form. Thresholds were crossed, and paradoxes appeared. In 1902 Bertrand Russell noted a fatal flaw in set theory. Frege, who was completing the second volume of a grand work intended to put

mathematics on solid logical grounds, saw the problem immediately, and reportedly said, "Arithmetic totters."

25. Arithmetic, of course, survived just fine. All of the philosophies that appealed to the authority of the Great Form, however, crumbled. By the 1960s, it was known that the data site was larger – vastly larger – than any formal machine we could throw at it. There were only procedures, no universal concepts, or no concepts at all because all concepts are implicitly universal.
26. The deeper asymmetry and incompleteness, however, were posed not by Russell but Darwin. He could not explain what he called "preadaptation." How did the organism select for the components of eyes without knowing about sight and the components of wings without knowing about flight? The adaptive value of the anteater's snout is apparent only after the fact. How do we select for the components of life?
27. Jan Kåhre's *The Mathematical Theory of Information* of 2002 is, I believe, the most important book of the last sixty years. It gives us a true theory of information in place of Shannon's theory of communication. Kåhre shows that no system can communicate with all of its parts. Form appears because information disappears. Matter and energy are conserved; information is lost. The fragmentary forms of classical reasons, logic, mathematics, and aesthetics appear as tools in our tool boxes and active forms of our preadaptation appear on the data site.
28. Kåhre writes: "... our comprehension of the world around us depends on [the Law of Diminishing Information]. If all information were preserved, we would be lost in the woods, overwhelmed by a thicket of details. We would not even perceive the individual trees; we could not imagine the paths. The Law prescribes a haze of blissful ignorance and oblivion, through which we can see patterns emerge, patterns otherwise unseen" (2002: 20).
29. Preadaptation is not a mystery of life, but the nature of life. Life is Earthly asymmetry. On the data site, there is *tekhnē* – art – but no *logos*, no

technology. Technology does not exist. There is coordination but no coordinology. [2] We make things and coordinate our efforts.

30. To exit hierarchy at the top is to make all of the formal regimes into what Arakawa and Gins call “procedures.” The entropic symmetry of matter and energy fades; a fully physical data site of matter, energy, and information appears.
31. When we emerge from the top of hierarchy and discover ourselves on the data site of diminishing information, we find that we ourselves are the answers to the fatal enigma of symmetrical theory. We are asymmetrical creatures, preadapting to an environment in which there is a potential to not disappear. It is the place where *tekhne* and coordination thrive and the emerging circuits of destiny occasionally reveal input and output jacks.
32. We exchange the creative imagination for the creative formation. We do not preadapt by making an image of the world that does not exist. We see adjacent possible forms rising on the near edge of the future and enter into collaboration with them. It is a way we can overcome our feckless loneliness.

### **Some Notes in December**

Arakawa was never violated by an idea and never saw anything that was other than itself. He related to the data site not with symbols of things but with operators on things – machines, procedures. He was himself such an operator.

Attention gives way to intention. Arakawa and Gins speak of “informing intention.” We inform the Earth, and it is our purpose. Earth is composed not of things but of purposes. Otherwise, creatures who feed on knowing can only debilitate and die. Data and the machines that we construct for its use are nutrition. We are not contained in sack of our skins. The city and the planetary system are organs of our bodies.

The last time I saw Arakawa, shortly before the onset of his illness, he was making a complicated point about reversible destiny, and suddenly, without it being clear where the effort came from, he was on the floor, moving nimbly – like a two-dimensional snake. It happened so easily and slowly that I had time to think briefly that it wasn't clear whether it was he or space and time that were being changing. The floor was unusually far away and weirdly configured. I was strange in my body in the space he made.

Whatever happened was right there. He made his body, as he made paintings and buildings, into a mechanism of meaning. He thought that, if we could make cities into mechanisms of the right kind, death would not be required of us. The buildings and what happened in the buildings had to be right. *Everything had to be right*. We build cities as we might open our bodies and work on our inner-organs.

In his presence the metaphysical detritus of every day life disappeared. He was the eye of the paradox, where the rabbit and duck were both a rabbit and duck and neither a rabbit nor a duck. He called it "the blank." With Arakawa one went into and out of the blank. It was the space of no dimensions. Whatever was, was already something else. Everything was that near nothing.

Attention and all that goes with it – consciousness, representation, language, history, culture, *the* object – are inherently deficient. There is nothing to attend to. We tell the child "Pay attention to that object. Pay attention to your mind." It's a death sentence. Sooner or later, they will understand, at least in some vague sense, that the thing and their minds are formally the same thing, the *one* thing, which is self-cancelling, blank.

Life is not given to be spied on. We know things not by paying attention but by taking them in hand and operating, not only on the things themselves, but also on the abstract system to which they belong.



Life is taken, enjoined. *Let  $x = y$* , and so forth. Injunctions can be issued only from the eye of the paradox, where the choice of abstract machines is unconstrained.

The given cannot be enjoined. Injunctions of given-ness are cartoons, beliefs, politics, religions – deathly things.

The mechanisms of meaning are not symmetrical or stable. Meaning is created from nothing, and it is lost.

Jan Kåhre: "...a real system which cannot forget is beyond theory. Biological evolution proceeds by the elimination of history: by random variation (divergence) and by selection (convergence)."

There was always too much information, even before the data flood. The unfiltered flow of perception will fill the buffers of the brain in about 15 minutes.

The humans – we are something else now (I have been saying "neoplasms") – dealt, or tried to deal, with information overload by generalizing. The generalized concept, however, was both lousy, which could have been managed, and fatally imprecise. The concept was so imprecise that finally everything was the same as everything else – all was one, unified, cosmological. The generalization made *the thing – whatever*, justice, a hammer, a stone, the constitution of a state – into conceptual mush, dangerously powerful and recklessly inclusive: the many were generalized until *all* became *one*. This unified conceptual surface was beautiful but brittle and empty. The nested and progressive imprecisions, shearing off the ambiguity of the thing for the crystalline sharpness of the concept, arrived at an inner-most core so finally general and vague that the trump concept itself – generalized difference is the same – was false. It was so imprecise that finally life could not be distinguished from death. All of the fundamental oppositions flickered. The final picture was flat-out wrong.

Generalized abstraction was more satisfying as a system of thinking and knowing than any system based on patent absurdity should have been. It worked after a fashion for twenty-five centuries, perhaps because its processing was slow – its parts did not communicate – and the philosopher’s garden was far from the work-a-day human world. The meditation on the absurdity belonged mostly to the Church and the University, which appeared as the secular replacement for the Church in the nineteenth century.

Data, even much valuable data, is lost, but the redundancy is immense. The data site is rich in second chances, and data is chosen for its precise value and its use in a particular form, not for its potential for disappearance into generalized, absolute, and dead form.

Let me say this differently. The new abstraction is not in the direction of inescapable generality but in the direction of decision and intent. “*We have decided not to die.*” The data site does not exist apart from the use of it.

Let me say this differently (it is difficult). Life on the data site is not symmetrical. It does not require death. Life is not the symmetry of its theory; it is the asymmetry of the events its unique, unrepeatable event makes possible.

Let me say this differently. Disinterest is the methodological prescription of the *concept* of life. Its form arises from the symmetry of life and death, which negate and cancel one another. Life, however, changes; death does not. *Tekhnē* – art, engineering, architecture – is the name of the discipline of intent. Life is not the exercise of the media; it is not a filling in of the coloring book of form; it is the intentional making of meaning.

Life as given is symmetrical. Space-time is symmetrical. Matter and energy are conserved, and their conversions are symmetrical. Grammar and logic are symmetrical. Aesthetics conceives beauty in terms of symmetry. These are all forms of life as given (death as given). It is when we take life, enjoin life, that things begin to happen.

The epic was a mechanism of memory. *The Mechanism of Meaning* is an anti-epic – a mechanism of forgetting and the fashioning of cognitive holes through which the data of symmetrical systems disappears. It is among the big works of the post-World War II era, along with Pollock’s drip paintings, the *Maximus Poems*, *Free Jazz*, *Gravity’s Rainbow*, the *¼ Mile Piece*, and the *Spiral Jetty*.

The macrocosm is understood in terms of relativity theory; the microcosm is understood in terms of quantum physics. These mechanisms of Pollock, Olson, Coleman, Pynchon, Rauschenberg, and Smithson are works that absorb and saturate the mesocosm – the data site of creatures that are neither entirely mechanistic, like the cosmos, nor entirely random, like the binding forces of the atom. The data site comes into existence with questions of intent. It is the forms of non-statistical, asymmetrical intent that are to be explored in the present century.

All of these works, including the drip paintings, are put forth as mechanisms – more or less nihilistic – for the neutralization of the subject. We are the dark spot that nearly obliterates the thing that we are trying to see. The more common assumption is that neutralization is enough: if the ego is dispensed with, the ‘reality’ or ‘truth’ or some unnamed good will flow through.

Olson and Arakawa thought the trashing of the subject was a necessary preliminary to a constructive process. Olson’s epic has a single, controlling device: the assembly of the future in terms of the present memory of the past (“My memory is the history of time”). He trashed the historical self in the first volume of the *Maximus*, and the mythological self in the second volume. He revealed these as “fully physical” processes. At the outset of the third volume, he declared, “I believe in God / as fully physical.” Olson’s mechanism of meaning, however, was never completed, and the evidence of it is still for the most part in the Archive. The physical god was probably impossible.

At the outset, conceptualization and theorization as machines of knowing dissociated generalized structures from meaning. It was possible, thus, to create powerful, generalized formal systems, such as the group theory and set theory, but it was then necessary to reinterpret their content for meaning. The purity that made them possible wrecked them in their use.

The frontispiece of the 1988 edition of *The Mechanism of Meaning* is the painting, *Presentation of the Ambiguous Zones of the A Lemon*, which poses a series of questions, the last of which is, "How not to think in terms of estimation but to deal with ambiguous zones as basic units?"

The question is neither what is, nor what can be believed. Now we inquire about the making of meaning. What can be done? On the data site we find not concepts, grammars, and logics; we find mechanisms, procedures, specific objects, archives of random data, samples (measures), mixes, and re-mixes.

The lonely, isolated researcher, in the sweat of ignorance and the nearness of death, knows by acting not on the thing – there is no thing – but upon by acting upon the possibility of acting.

The Single Intelligence, contemplating itself in its object and its object in itself, came to its limit with Einstein, Bohr, Whitehead, and Russell. In *Process and Reality* Whitehead set forth the last cosmology.

If we are to get any further we must coordinate our efforts. No one is going to get to see it all. For the community all of the operations are local; it is not the city that is real; it is all of the operators and their operations coordinating and keeping company.

## Notes

[1] This talk was presented on May 20, 2010, in the closing session of the Third International Arakawa and Gins Architecture and Philosophy Conference, in the Guggenheim Museum of Art in New York City.

[2] See, for example, Keane 2003, where coordinology is proposed to be as the practice of (rather than the study of) the coordination of perception and action.

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