

expanded and updated edition



# ADHOCISM

**The Case for Improvisation**

Charles Jencks and Nathan Silver

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**Charles Jencks and Nathan Silver**

**With a new foreword  
by Charles Jencks**

**and a new afterword  
by Nathan Silver**

The MIT Press  
Cambridge, Massachusetts  
London, England



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or write to Special Sales Department, The MIT Press,  
55 Hayward Street, Cambridge, MA 02142.

Original 1972 book design by Gordon House, London.  
The MIT Press Edition was printed and bound in  
Singapore.

Library of Congress Cataloging-in-Publication Data

Jencks, Charles.

Adhocism : the case for improvisation / Charles Jencks  
and Nathan Silver. — Expanded and updated edition.  
p. cm

Originally published by Doubleday & Company, Inc., 1972.  
Includes bibliographical references and index.

ISBN 978-0-262-51844-4 (pbk. : alk. paper)

1. Arts—Psychological aspects. 2. Improvisation in art.

I. Silver, Nathan. II. Title.

NX165.J46 2013

701'.15—dc23

2012038949

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# Foreword to the MIT Press Edition: The Style of Eureka

Charles Jencks

*Adhocism* is a mongrel term first used in architectural criticism in 1968. Born from the conjunction of *ad hoc*, meaning “for this particular purpose,” and *ism*, shorthand for a movement in the arts, the combination thrives in many places. Adhocism denotes a principle of action having *speed* or economy and *purpose* or utility, and it prospers like most hybrids on the edge of respectability. Basically, as in architecture, it involves using an available system in a new way to solve a problem quickly and efficiently.<sup>1</sup>

To understand the concept it is best to look at one exemplary object in some detail: the recent Mars rover called Curiosity. Although very expensive and carefully designed, in several ways it is the typical product of adhocism. First, it takes an existing system, in this case well-tested geology machines that can move around hostile environments, and clips on a series of attachments that are new to exploring planets. The very visible add-ons include a laser gun and a drill and X-ray machine mounted on a robotic arm, both old technologies given a new context. Perhaps 90 percent of adhocist concoctions are like this, old systems with a few supplementary clip-ons.

Second, and just as important, the visual result looks complex and striking. Like the old bug-eyed monster of science fiction fame, or a Rube Goldberg contraption, many of the attachments jump out at the eye. Indeed, all the planetary rovers looked this way because their parts were put together ad hoc, without disguise and seamless packaging: *for this* specific purpose, or that. The six wheels that can navigate rough territory and the robot arms have remained standard improvements, which any child can appreciate because they are isolated, or dissectible from the body. Like all good adhocist concoctions, the parts of Curiosity show *what* they do, *where* they come from in the past, and *how* they are put together. Such legibility and dissectibility are key expressive aspects of adhocism, goals in themselves, part of the definition (see p. 39 and following).

But such visual similarities in all the rovers hide jumps in organization, an important third point of adhocism: its creativity. If the old models that have explored the

red planet since 2003, Opportunity and Spirit, were called robotic geologists, then Curiosity is an elaborate *chemistry laboratory* with internal transformations you do not see. After the laser beam zaps a rock, and the robot arm drills and X-rays it further, the powder is transferred to the hidden lab and cooked to over 1000° centigrade to release its secrets: the telltale gas. Here is the pay-off: to find traces of water and organic compounds.

The whole Mars program is aimed ad hoc, “to this specific purpose” of answering the cosmic question: is there life anywhere else? If there is, it means that the universe has a propensity to create organisms wherever it can, and that we are fundamentally built into its laws. I debate some implications of this in chapter 2, but here at the outset it is important to understand that typical adhocism, like Curiosity, is a supplementary addition to a previous system, a creative one made for a specific purpose. Goals matter to adhocism, the content matters, and finding out about a key purpose of the universe is a not inconsiderable goal. Why else spend \$2.5 billion on tinkering with high-tech gadgets?

## Far left:

The Mars Rover Curiosity, 2012, is *simulated adhocism*, a mixture of pre-existing systems modified for a specific purpose, plus new attachments. A moving chemistry laboratory is put together with cameras, testing instruments, a laser-gun, and chemical-probes. The “specific purpose” is exploring Martian geology, but the greater goal is answering the key question: is there life elsewhere? Image NASA/JPL-Caltech, modified by Charles Jencks

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1. I coined the term Adhocism in an article on London's Hayward Gallery; see “Adhocism on the South Bank,” *Architectural Review*, July 1968, pp. 27–30, which discusses several of the definers in architecture.

## A map of the book

To explore the territory of adhocism, I have written the first six chapters, which set up some arguments in the everyday arts, sciences, invention, and politics. Nathan Silver then follows with four longer chapters, widening the discourse to such fields as the city and consumer marketplace, where design might be entrusted to everyone. Since this book came out in 1972, however, the hybrid style has remained just a small, if vital, part of many global trends. One reason for this is not hard to fathom: conservative taste.

Most of the world's large tendencies are like mainstream branding, or the face of large corporations searching for the perfect, homogenized product. Think of the nation-state, the Olympic movement, or the large multinational corporation. They seek an integrated and holistic aesthetic, the sign of a single culture or one nation, and try to capture the largest audience possible by giving it a standard artifact, just as in the 1960s the United Biscuit Company hoped to create "the universal biscuit." Our hope was that, in place of market stereotyping, a more creative pluralism would emerge. We wanted to persuade consumers to create their own hybrids, to enjoy the *bricolage* made possible by the proliferating choice of world production, to personalize what was becoming an anodyne globalism—globcult.

As we argued, mass-production could lead in a different direction, to mass-customization and a more sensitive consumer democracy (see, for instance, pp. 63 and 173). On one level this has come about. With some products, such as a man's shirt, you can self-tailor the options on a customized website—the color, shape, and thirty or so other definers you want—and have the individualized result arrive through the mail, in a week, at a quarter the cost of its bespoke equivalent and equal to the price of its mass-market version. Such mass-customization, however, has not yet fully reached into larger products such as buildings, nor has it influenced the cultural goals we set as desirable. Mass culture and stereotyping are still the global rule. Yet our book starts from the point where these unfortunate truths trail off and become their reverse: that is, the surprising and delightful moments when a new idea or invention results from the sudden and successful conjunction of old ones. In short, it focuses on that rare time when creation takes place, just after two or more elements are brought together in a new synthesis, the birth moment, the eureka flash.

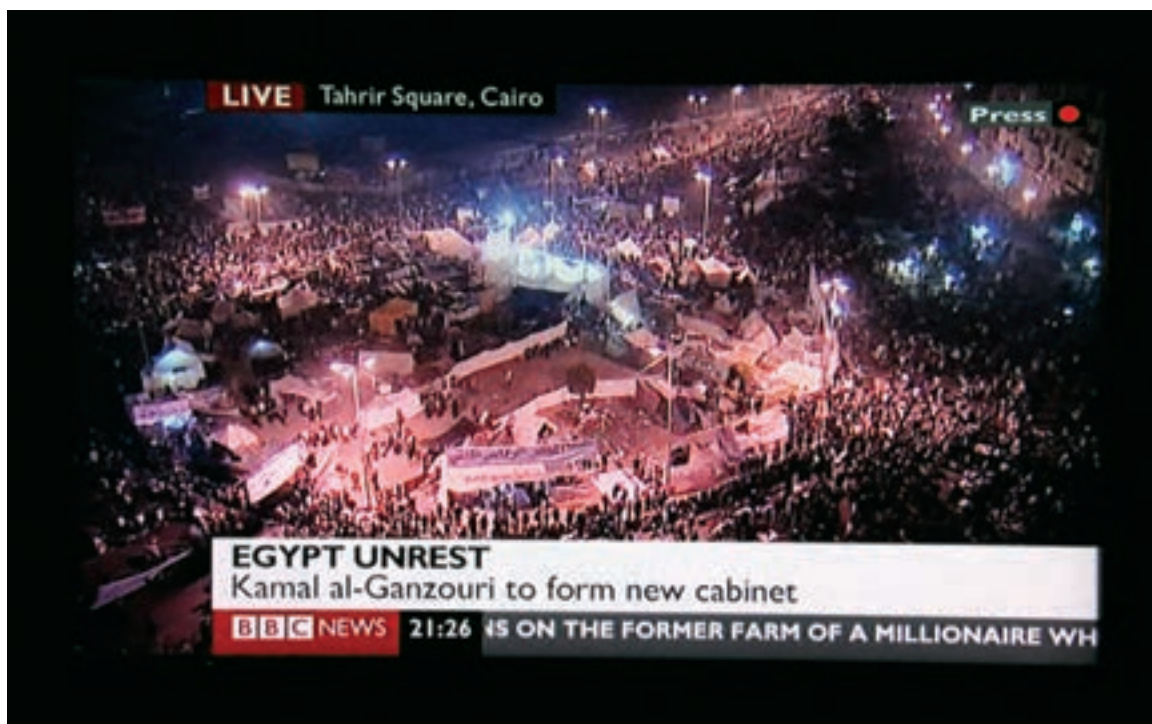
Adhocism privileges that moment, freezes it so that the old and new can be seen together, whether it is the conceptual breakthrough of Einstein's space-time, the combination of a new field like bio-chemistry, or a more modest, everyday creativity such as converting a bus into a moving-house. Astro-biology, a discipline that helps guide the rover Curiosity as it looks for hints of life, is another new, hybrid specialization. The style of ad-hoc-ism keeps its hyphens advertised, and this very fragmentation may be another reason why it has remained a minority style—and yet eternally fresh: as if it were *déjà vu* for the first time. The evolution from the first revolutionary breakthrough to the normalized paradigm is the route followed in science, culture, and fashion.

To be more precise, and to key in distinctions seen throughout the book, there are really *three* evolutionary stages. First is the *ad hoc breakthrough*, the creative moment and its hybrid, which is so striking, such as the first automobile, or horseless carriage (p. 50). Then comes the second main period, what could be called *simulated adhocism*, when ready-made solutions become conventional, improved, and supplemented, again like Curiosity. This constitutes by far the largest area of ad hoc production, the greatest volume of put-together artifacts. For instance, in the world of consumer buying, it is when the "bottle-lamp" joint becomes mass-produced and readily available (p. 27). Finally, there is evolution to a third stage, often called "the organic whole." Here the parts proliferate at a very small scale and produce a *seamless integration*. Adhocism ceases; the third stage of development, by far the longest in a product's life or an organism's evolution, is piecemeal, smooth, and classical.

Put more generally, our argument follows the ideas of Arthur Koestler and others who have long pointed out that all creativity depends on the coming together of disparate material, or what he called in *The Act of Creation* (1964) the "bisociation of matrices." He shows that the successful combination of formerly separate elements underlies science, art, and especially humor: and it is why a joke re-heard, or explained, is never as funny again.

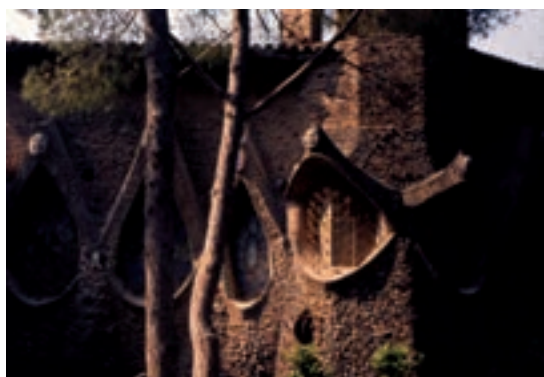
A second basic point is the way our take on adhocism favors political pluralism, and at least one of our arguments, concerning the "Ad Hoc Revolution" in politics, has been vindicated (pp. 98–99). As the uprisings throughout the Middle East have shown, every revolu-





tion worthy of the name produces plural, self-directing groups. These are called variously the councils, the communes, and the equivalents of American townships, those that Thomas Jefferson sought to preserve. The Arab Spring, which started in Tunisia, made the world feel rich in such possibilities. On January 25, 2011, fifty thousand assorted protestors assembled in Cairo's Tahrir Square, and in the next couple of weeks they grew into a million or more. Social media such as Twitter and Facebook amplified the local self-organization, while foreign broadcasters, particularly Al Jazeera and the BBC, magnified the message for Egyptians as a whole. By February 11th Mubarak was gone and it seemed as if Middle East dictators, and others, might race for the exit. Driving these events was both broadcasting and narrowcasting, but just as important was Tahrir Square itself, and its ad hoc culture and public realm, which became a staple of the evening news around the world. But, as with revolutions since the time of ancient Greece, organized minorities were waiting to take over this fluid situation—the revolution's first and second stage; and so, as often happens, the third and fourth reactionary stages have set in. Nevertheless, the perennial emergence of ad hoc democracy occurred, the recurrent tradition, and the question remains Jefferson's—how to turn such a fledgling pluralism into a workable federation.

Tahrir Square, Cairo, 2011. Self-organizing movements revive elements of the public realm (the circular space of community) as well as contemporary means (the ephemeral signs and instant media). BBC News



Antonio Gaudí, master adhocist, at the Colonia Güell Chapel (Barcelona 1908–15), reused an assortment of various materials—clinker bricks, colored glass, and sewing-machine parts—to signify opening eyes, flowers, and the bark of surrounding pines.

## Cosmologies and pluralism

An argument of the second chapter, called “The Pluralist Universe, or Pluriverse,” connects political diversity to a fast-changing metaphysics. As I framed it, somewhat contentiously, we live at a time when there are “plural interpretations of a pluriverse rather than a unified theory of a universe” or “a new cosmology every week” (p. 32). The overstatement turned out to be predictive. In 1970 there were three theories competing: the Big Bang, the Steady State, and the synthesis I mentioned, the Steady Bang. Today these have morphed further and, to mention only a few of the cosmologies we have enjoyed, there are the metaphors of a cosmos based on Inflation, Superstrings, Membranes, and Many-Worlds. Each theory has a variant of a favored universe. Hence the Anthropic cosmos, the Fine-Tuned Universe, the Cosmic Designed Universe (with God or laws as its basis), the Quantum, Cyclic, Simulated, Parallel, Fractal, Complex, Liquid, Quilted, Landscaped, Inflated-Bubble ... and All-Possible Multiverse.

I should have said “it’s a new cosmology every year,” because there have been well over forty contenders for the big picture. The results are exhausting, disorienting, and, as I felt, exhilarating. But their plurality itself may trivialize a cosmic religious feeling, as Einstein called the serious orientation of scientists. And on a personal note I am unconvinced by many of the arguments for a multiverse.<sup>2</sup> But this is where the scientific community now finds most of its leading paradigms (with an s).

Because of this pluralism we should approach the connections between worldview and science with more nuance than the options now on offer. As Martin Rees said, even while he was president of the Royal Society, he had no specific religious beliefs. Although as a scientist he felt the multiverse was the most likely theory on offer, when it came to music, the arts, and supporting continuities of culture, he remained a “tribal Christian.” Several scientists (and friends) vilified him for this; but then as many would agree with his tolerance. He cherry-picked multiple practices ad hoc, while assuming some far-off unified theory of the multiverse. Thus, as our second chapter argues, whatever the future metaphysical synthesis may become, we have to keep both adhocism and unity in tension; an exhausting prospect but better than the alternatives.

The Rees version of the multiverse entails a different view of cosmic laws, for they are no longer completely universal. Rather like provincial rules of the road they may be merely bylaws, like driving on the left during rush hours—contingent, unconnected to anything bigger, and subject to seasonal variation. Maybe the laws evolve, as they are supposed to have done after the first creative microseconds of the universe. Whatever the case with the larger picture, in architecture and urbanism the rules are often more like bylaws than universal ones.

This hybrid position, as critics of our book mentioned, placed adhocism in line with several authors, such as Isaiah Berlin and Karl Popper—philosophers of pluralism—and Robert Venturi and Colin Rowe—architectural writers—who encouraged such variety. As Stuart Cohen pointed out, our position stemmed from Venturi’s argument for *inclusivism* in 1966 and led to Rowe’s defense of *contextualism* in 1978.<sup>3</sup> It was characterized by the ad hoc quotations of James Stirling, as well as his epigrams: “There is hope for CLASP” (the prefab building system) he said, “if used out of context.” In his important buildings at Leicester and Cambridge, Stirling elevated high-tech equipment into high-end jewelry, and at Stuttgart a few years later, he created the first convincing hybrid of postmodernism. This museum combined contextual languages of the site—its classicism, modernism, and vernacular—and inverted high-tech elements “out of context.” The utilitarian tubes were used not functionally but, ironically, for symbolic and visual reasons.

As Cohen avers, these ideas were in the air, part of the gathering argument that questioned modernism. Stirling was thus the occasional adhocist, *simulating bricolage*, as Rowe pointed out in *Collage City*, as part of his taste for the hybrid. In general, such a sensibility has gathered strength with postmodernism and a world more deeply connected by travel, Google, and communication. It is leading to the palimpsest of cultures we advocated, and to some models of the time-city.

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2. For a recent anthology that contains many of the key scientists and cosmologists see *Universe or Multiverse?*, ed. Bernard Carr (Cambridge University Press, 2007).

3. See Stuart E. Cohen’s review, *Architectural Forum*, June 1973.



James Stirling and Michael Wilford, Neue Staatsgalerie Stuttgart, 1977–84, an ad hoc mixture of the Pompidou Center, classicism, and much else from the existing context.



Ron Arad continued this work with his ad hoc furniture, the *Distressed Concrete Record Player and Speakers* of 1983.



## The time-city

The idea of the city as a layered cake of different eras goes back to the first civilizations, when one built on the fragments left by one's ancestors and, literally, on their bones. We alluded to this tradition of accumulation (pp. 35 and 160). The reverse of the modernist *tabula rasa* is the *tabula scripta*, an urban landscape that keeps rewriting its memories the more it ages. Great capitals achieve this layering—parts of Istanbul, Rome, and London—and sometimes, as with the High Line in New York City, it is a conscious decision to do so with pre-existing structures, in this case an elevated railroad track that had been abandoned. Then there are such anomalies as Matera in Southern Italy, which simply regrow inside their shells. Here, over a period of 9,000 years according to archaeologists, itinerant troglodytes first sheltered, followed by more sedentary cave-dwellers and finally inventive house-builders. Each generation half-carved and half-built its hybrid house. For historical reasons many of the conglomerations survive. They are the weird and romantic consequence of a beautiful gorge, the honey-milk stone that gives it a naturalistic aesthetic (calcareous rock, the *Sassi*), and the defensible position by a river.

Matera has often prospered and been as fiercely independent as its image. In September 1943, it became the first city in Italy to rise up against the German occupation and fight the Wehrmacht. Yet after the war, and because of rural poverty, modernists were determined to clean it up with urban renewal and progressive technology. In a postmodern parable, Umberto Eco recounted to me one of the inadvertent consequences of this well-intentioned program. Planners provided the citizens with new sanitation, flushing loos and male urinals that cleared with a pull of a handle. But the inhabitants, mostly farmers, did not agree with the priorities and design-use. They relieved themselves outdoors in the customary way and subverted the white sanitary bowls for another purpose: to wash their grapes. Once again, reinterpretation plus adhocism made the difference.

The pattern of reinvention in Matera continued. Since the fifties many films have appropriated the city, turning it into "Jerusalem." Pier Passolini's *The Gospel According to St. Matthew* (1964) was the first of these biblical refits followed by three more epics and then by narratives that sought to recreate other hill towns. With more and more Hollywood makeovers, and the intervention of the European Union and successive

governments, today the 9,000 year-old *scripta* is in danger of being squelched by tourism and over-building.

Getting the right balance between past and present is shown by three recent models of the time-city. In the first, David Chipperfield and Julian Harrap operated successfully on Berlin's Neues Museum, which suffered extensive bomb damage in WWII. Their strategy worked because it mixed various tactics, each targeted ad hoc for a particular purpose. The remains of the Egyptian Court, for instance, were partly restored, partly built anew with a concrete frame, partly given a whitewash to unify new and old bricks, and partly paraphrased in ancient forms and rhythms. A single approach would not have worked. It took reproduction plus faking plus melding; then pragmatic invention and new architecture. The juxtapositions result in a time-building far more convincing than the 1850s original, which while elegant looked predictable and ersatz.



Gaudí's Park Güell seating undulates so much to fit the body and break up groups into smaller units. Spanish tiles would not work, so he covered the warped surfaces with broken ceramics, creating one of the first collages.

### Top right:

Matera, the rock-city in southern Italy. Inhabited for 9,000 years, it keeps an active memory of its history from cave-dwelling to the latest electronic attachment.

### Below right:

David Chipperfield and Julian Harrap, Neues Museum, Berlin, 1994–2009. The Egyptian Court shows the typical mixture of ad hoc methods pulled together with a light white wash.





A second model was developed by Edouard François in Paris. Generally, he takes his cues from whatever is the context, whether natural or cultural, with the argument that today the context is weakened and disrupted by economic forces. His version of the time-city usually mixes growing walls that disguise the building in a deadpan humor. The wit results from a ruthless splicing of ad hoc necessities. It also means the contradictory requirements of political pluralism are acknowledged at face value. François is refreshing because, like a student mixing computer codes, he accepts the algorithms for their democratic legitimacy, and then reflects them back to society with relish. At the Hotel Fouquet the conservative arrondissement demanded a Haussmannian architecture of five stories, a reproduction of the adjacent context, while the hotel management demanded an eight story structure with picture windows for tourists. Impossible to resolve? Study the facade to see how it is done, how the contradictions are threaded through each other to erupt, occasionally, in sensuous combat—a contextual print-out. The counterpoint is beautiful, funny, and truthful to social contradiction.



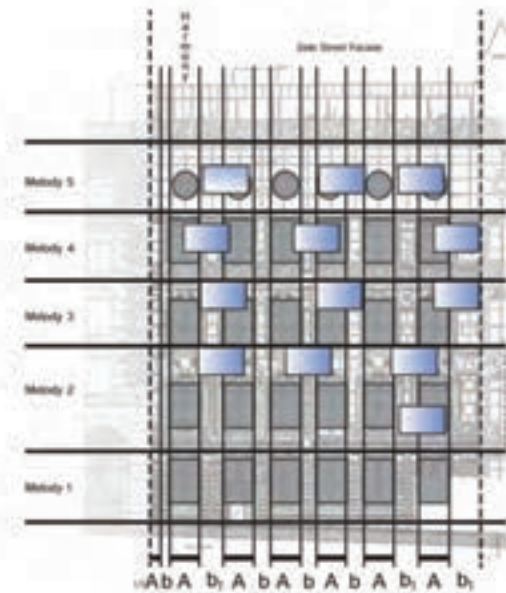
Edouard François, Hotel Fouquet, Paris 2004–6. Most visible is the violent juxtaposition between the mandated repro-style and the modern windows. Subtle shades of grey give the building surprising sensuality and depth.

The third model, a small cultural center in Madrid, CaixaForum, also combines contextual parts in a direct and amusing way. Designed by the architects Herzog & de Meuron this version of the time-city combines not two but four basic elements, in contrasting materials: a pre-existing electricity station in brick; a green wall to one side; a rust iron addition on top (that picks up the surrounding typology); and a sheltered urban piazza below, featured as a deep shadow-line. The same strong contrasts are played on the inside of the building, but now in different colors and materials—an adhocism of counter-themes.



Herzog and de Meuron, CaixaForum, Madrid, 2003–8. A dramatic route through different functions is articulated in the sunken base in steel, the middle forum in brick, and the top museum and restaurant in rusted iron.

Both the French hotel and Spanish cultural center are more than collage, or the mere assembly of parts. What gives them greater resonance is the careful contrasts of fabric, the functional motive of each part, and the reconciliation of themes as a form of visual music. This last is the highest form of architecture, a type of “Contextual Counterpoint.” The accompanying diagram shows the melodies as horizontal voices playing against each other. One can also read vertically the syncopated harmonies, and dissonance. Comparing the two buildings, I find that the French hotel has the more subtle counterpoint. It is as tricky as a duet of two lovers orchestrated by Mozart, who fight it out in order to more greatly enjoy their inevitable embrace. The



Madrid building, by contrast, is as crude and forceful as Stravinsky's *Rite of Spring*, where the primitive forces of nature burst onto the scene with vigorous intoxication.

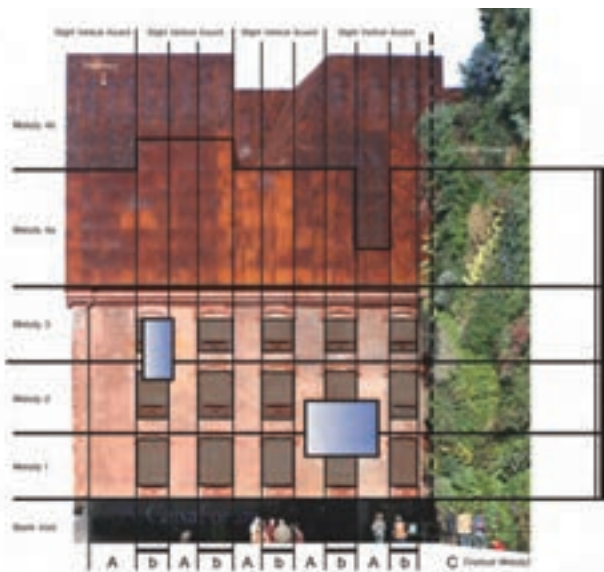
These three examples of building in the city with its past remind us that the constraints of history can liberate architects as well as torture them. For designers the prospect of building the time-city may not equal the stand-alone icon, nor be as easy as the *tabula rasa*, nor produce unified perfection. But it has produced some important architects in the past—Alberti, Borromini, and Stirling—and a convivial urban fabric like the High Line.

### The singular delight in otherness

We might conclude that adhocism is a minority affair, and for several reasons. Modernists and classicists deride the genre as better practiced between consenting adults in private. In spite of the sexual slur, there may be a little truth to this. Like the creative breakthrough on which it is founded, adhocism represents a *singular* moment of inventive combination. And, like the Hotel Fouquet above, the contradictions forcefully expressed may offend urban coherence. Or the hybrid may strike at our predisposition for unity and peace, the so-called Silent Butler approach to city building where everything is toned down to better support the whole.

It is also clear that after forty years of being named, adhocism is mostly a supplementary approach to be added to a more integrated design strategy, as it was with James Stirling. Most architects focus on the bespoke, the universalizing method, and attach ad hoc bits only for honorific or visual reasons, as exclamation points. Even where it has continued as a major focus, as with Antonio Gaudí, Bruce Goff, and today Frank Gehry, it remains partial and subordinate to the larger method of design. As such, it will neither go away nor dominate practice. It is destined to occupy a rare place in our affection, the special moment of insight.

To make the uncanny normal is to rob it of strength. Special moments are for amazement; the ad hoc breakthrough is to be savored, as artists and creative individuals have insisted, and treated as an epiphany of sorts. Abbot Suger, one of the inventors of the Gothic style in architecture, testifies to this truth. A vision pushed him to innovate on the large and small scales.



Contextual Counterpoint can be followed as the interweaving of the horizontal, melodic line with the vertical harmonies. A general A/B rhythmical bay system underlies both examples of visual counterpoint.



Studying both Gaudí and Goff, Frank Gehry extends adhocism to a larger scale of borrowing. First incorporating large chunks of a previous house into his own Santa Monica abode (1978) and then collaging an F16 onto his Aerospace Museum (Los Angeles, 1984) and working with artists, he simulates adhocism with different style buildings. This includes the binoculars designed by Claes Oldenburg and Coosje van Bruggen, for the Chiat Day Ad Agency (Venice, Calif., 1991).



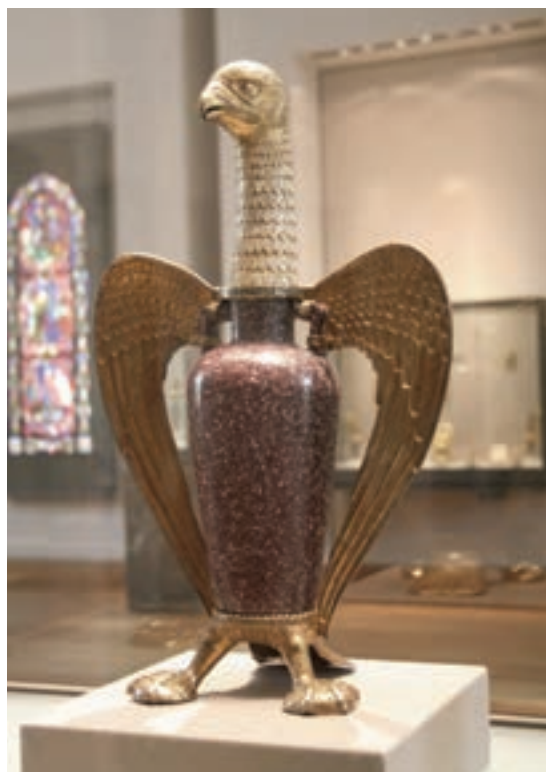
The captivating metaphysics of light drove him to create the splendor of stained glass, partly in order to fill out the spaces left by pointed arches. Then from architecture he turned to jewelry and argued that precious objects were not sinful distractions but symbols of transcendence, inducements to lift the mind up to divine light. Typically, as in the creative act, he thought through metaphors of connection. He “carried over” one area of experience—sparkling gold, polished marble—into another, the radiance of energizing light. The result ultimately was the fusion of continuous light-filled space in the chevet of St. Denis, the origin moment of Gothic.

Another bisociation of two things, his Eagle-Vase, is more visually ad hoc. The base of this concoction is a red porphyry vase, perhaps of Egyptian or Roman provenance, but in any case venerable. He transforms this ancient “bottle” by surmounting it with a gilded eagle sporting extraordinary wings. The juxtaposition looks surreal, and especially odd given its date in the mid-twelfth century. But then it was another sort of invention—it symbolized Christ as an eagle, and attacked Suger’s challenger Saint Bernard, the Cistercian who was preaching austerity.

Thus Suger’s appropriation is a double combination, part physical and part political. He describes the eureka moment with a little pride: “and further we adapted for the service for the altar, with the aid of gold and silver material, a porphyry vase, made admirable by the hand of a sculptor and polisher, after it had laid idly in a chest for many years, converting it from a flagon into the shape of an eagle; and we had the following verses inscribed on the vase: ‘this stone deserves to be enclosed in gems and gold. It was marble, but in these settings it is more precious than marble.’” In other words, it was the artwork *and* the spiritual meaning of gold that made it “more precious.” Like the splendor of Gothic stained glass, the Eagle-Vase was the opposite of bling, not a consumer bauble but a physical argument for God.

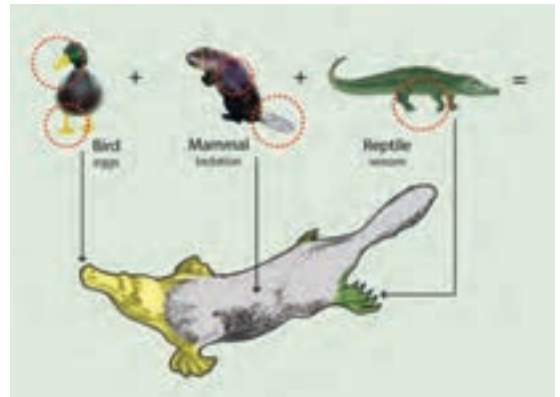
Our fascination with this mode of being—the ontology of adhocism, to give it a pretentious title—is most enjoyed as exceptions to the rule, and this delight may be particularly winning when found in nature. Most species, for instance, look integrated and inevitable, and so it was a great shock to Europeans when they discovered the put-together platypus. It made the classification of species look untenable, and to skept-

tics proved God had a sense of humor. The platypus is indeed an unlikely amalgam. It has the tail of a beaver, the feet of an otter, but in front the webbed feet and bill of a duck. Although classified first as a mammal, it lays eggs like a reptile and its webbed feet and large, rubbery snout are closer to a duck than other mammals of this class. No wonder it has been called a lot of things, including a water-mole and hyphenated duck-billed-platypus. It has a reptilian gait, with legs that are on the side of the body rather than underneath as on most mammals, and has extra bones in its shoulder not found in other mammals. A calcaneus spur on the male’s hind leg delivers a cocktail of venom—how many mammals have you met like that?—while its rubbery bill is not for eating, but for electrolocation! Each time it dives for food, it closes its eyes, ears, mouth, and nose and detects its prey with electric fields set up by electroreceptors located in the skin of its bill. I could go on listing its near unique set of characteristics, but one look at a platypus confirms it is on holiday from the usual species—much like the Pushmepullyou of literary fantasy.



Abbot Suger, *Porphyry vase holding gilded eagle*, St Denis, circa 1150. Now in the Louvre, Paris, this striking concoction was invented, as was his glowing architecture, to support an analogical argument for God.

When swimming in the water its front end can be mistaken for its back, the head for the tail. Given these anomalies it is no surprise that, when first encountered by Europeans in 1798 and studied by British scientists, they thought it was a taxidermist's hoax. So they took it to pieces looking for the telltale stitches. For the next fifty years fraud was suspected, and it was not until the twentieth century that the animal started to be understood, loved by children, and preserved. Finally, it appeared on the back of the Australian 20-cent coin, and became one of the three mascots for the Sydney 2000 Olympics, not to mention an admired TV character. From fraud to the sometime symbol of a nation is a strange route to travel. But it shows that the ad hoc concoction is often best loved when it is most rare.



Platypus, the conceptual mascot of adhocism.

By way of summary then, an ad hoc list of some qualities to look for, and a manifesto that acknowledges the limited but important role of this stimulating genre.

The High Line, 2005–9, designed by James Corner, Diller Scofidio & Renfro, and planted by Piet Oudolf. An abandoned elevated railway re-used with other attachments such as rail-tracks, benches, lighting, bleachers, and concrete paving that cracks open to water the “wilderness” planting: simulated adhocism.





# An Adhocist Manifesto

1. If necessity is the mother of invention, then combining previous systems is the father, and adhocism is the creative offspring. This is true in both nature and culture.
2. In culture, combinations that display themselves, and explain their use and origins, are especially adhocist.
3. Thus adhocism is the style of eureka. It is the origin moment of new things, when the forms are typically hybrid, and like all creative instants, the conjunction of previously separated systems. Hence, the style must remain heterogeneous to be understood. Like the best surrealism when seen for the first time, it is experienced as an incongruous marriage; often the copulation of incommensurable things. But as species and things evolve, their ad hoc attachments become supplementary, conventional, and usually simulated. Fully evolved this heterogeneity is integrated and non-ad hoc. Yet an evolved time-city can be an intentional palimpsest of layers, as with New York's High Line.
4. At a populist level adhocism is radically democratic and pragmatic, as in the first two stages of revolution. It is also evident after catastrophes such as Hurricane Katrina, or the earthquake in Haiti, when people make do with whatever is at hand.
5. At an elitist level it is efficient and perfected in the parts. Like the Mars space program, where each Rover is assembled from the best subsystem without prejudice of stylistic unity, there is tolerance, even love, of mongrel beauty.
6. Adhocism badly done is a lazy put-together of diverse things. It steals from the bank of the world's resources, pays nothing back, and devalues the currency. Plagiarism and theft are redeemable if acknowledged, and if there is added value: the improvement of either the subsystems or the whole. Palladian, as well as Modern, architecture is based on stolen goods duly footnoted. Academics are usually trained in this confessional art.
7. Philosophically, adhocism tends to be open-ended like an additive list and encyclopedia. Thus it is first cousin to eclecticism, defined as "deriving ideas, tastes, style, etc., from various sources." This is from the Greek *eclect*, "I chose or select" this part from anywhere. Looking for improvement, we choose the best part without trying to stay within a single canon.
8. If misusing a knife as a screwdriver is forgivable adhocism, then the Swiss Army Knife is its customized, evolutionary offspring. Droog Design is the commercial version, the Japanese Tea Ceremony is the ritualized usage, and Frank Gehry's house for himself typifies the informality. The heterogeneous and informal characterize the cultural genre.
9. Try a thought experiment with the smallest atom; hydrogen or deuterium. Even these simple bodies are a historical smash-up of different units—the proton, electron, and neutron. Only quarks and leptons seem to be non-ad hoc. Evidently the rest of the world coalesced from difference.
10. If most everything on earth comes from something else and is compound, then we *live in* a pluriverse. Although the laws may be uniform in our universe today, they evolved during the first microseconds, and may be the bylaws of an ad hoc multiverse.





My ad hoc work started in the 1960s with assemblies, some of which questioned the stereotypes of face and body by re-using ready-made parts. For instance, because available electric fires were over-designed and somewhat kitsch, in 1967 I combined a heater with a Henry James' novel, *The Madonna of the Future*, and manikin parts, the last a subject of Surrealist desire. In 2000, I re-used a sectioned torso to display a beautiful head of geological significance in order to question texts on the science of beauty, seen to her left in a cover story from *Scientific America*. Then at the head of a black and white garden setting life against death, I employed a typewriter, sonnets from Shakespeare, and his character, *Churl Death*, to celebrate the skeleton, 2009. Beside an open cast coal mine, *Northumberlandia* is constructed from available material to hand. She is a quarter of a mile walk up and down the body where one can hide in shelter points with signs on the rock, 2012. *Northumberlandia* photographs, Graeme Peacock.





# Foreword

**Ad, L. prep.**—‘to’ in *ad hoc*, for this or that particular purpose.  
—*Shorter Oxford English Dictionary*

“Adhocism” is a term coined by Charles Jencks and first used by him in architectural criticism in 1968. It can also be applied to many human endeavors, denoting a principle of action having *speed* or economy and *purpose* or utility. Basically it involves using an available system or dealing with an existing situation in a new way to solve a problem quickly and efficiently. It is a method of creation relying particularly on resources which are already at hand. Incidentally, the word *adhocism* has the property of itself being *ad hoc*. An initially clumsy parasyntesis like “oneupmanship” or “feedback,” it forces recognition of its own birth and history.

Beyond its utilitarian aspects, *adhocism* gives rise to whole new areas of inquiry and speculation. To begin exploring this uncharted territory, we have chosen an uncommon method of presentation. Jencks has written the first six chapters which set up the main argument with brief examples. Silver then follows in four longer chapters, widening the argument in such fields as the arts, the city and the consumer marketplace (where design might be entrusted to everyone), and elucidating two often different *adhocist* actions: not only using contingent situations as opportunities for resourcefulness, but using opportunities to produce contingent, open-ended results.

We have tried to eliminate redundancies, but where our opinions vary we have deliberately allowed some to remain. In one or two cases a story begins with Jencks and ends with Silver, since this is how these notions developed. Many thoughts originating with one or the other became common property over the course of our two year collaboration. By keeping our individual contributions separate we hoped not to water down our views, and thus the two parts should be seen as complementary rather than monolithically integrated. This hybrid approach is itself appropriate to an old concept which is not the special concern or property of any one person.

*C. J. and N. S., London, January 1972*





## Acknowledgments

My work on this book was greatly facilitated in two different ways. First, I was helped by the scrupulous and creative editorial advice of Sallie Waterman, Bill Whitehead, Nathan Silver and Helen McNeil and, second, I was aided by the fertile ideas of Arthur Koestler, Noam Chomsky and Hannah Arendt. If I haven't taken all the advice, nor done complete justice to the ideas, I am still grateful for the way they have considerably lessened my errors and improved my thought.

*Charles Jencks*

Some of my research on this book, as well as on other projects, was supported by the John Simon Guggenheim Foundation which granted me a Guggenheim Fellowship, and the New York Chapter of the American Institute of Architects which awarded me a Brunner Scholarship. I am grateful to them. My compendium of adhocery would have been far less balanced without the advice and help of friends: Doubleday editor Sallie Waterman, Ken Yeang who made the Soho drawing, Roddy Maude-Roxby and Amaryllis Garnett on theater, Richard Smith on art, Charles Jencks on architecture and most everything else, Jane Jacobs who has so saturated my own views on planning that she might have been credited in a half dozen places. Helen McNeil wrote the section on literature that was installed *ad hoc* within and also reread the whole manuscript many times. What coherence my part of the book has was aided immeasurably by her.

*Nathan Silver*



# ADHOCISM

## PART ONE





# 1 The Spirit of Adhocism

*Ad hoc* means "for this" specific need or purpose.

A need is common to all living things; only men have higher purposes. But these needs and purposes are normally frustrated by the great time and energy expended in their realization.

A purpose immediately fulfilled is the ideal of adhocism; it cuts through the usual delays caused by specialization, bureaucracy and hierarchical organization.

Today we are immersed in forces and ideas that hinder the fulfillment of human purposes; large corporations standardize and limit our choice; philosophies of behaviorism condition people to deny their potential freedom; "modern architecture" becomes the convention for "good taste" and an excuse to deny the plurality of actual needs.

But a new mode of direct action is emerging, the rebirth of a democratic mode and style, where everyone can create his personal environment out of impersonal subsystems, whether they are new or old, modern or antique. By realizing his immediate needs, by combining *ad hoc* parts, the individual creates, sustains and transcends himself. Shaping the local environment towards desired ends is a key to mental health; the present environment, blank and unresponsive, is a key to idiocy and brainwashing.

(1) *Women's Liberation march*, London 1971.  
Direct action, the creation from available materials (of female repression): stockings, shopping bag, vest, apron, and bejeweled torso are crucified on this marching banner

## Urgency and purpose

The phrase *ad hoc*, meaning "for this" specific purpose, reveals the desire for immediate and purposeful action which permeates everyday life. One is constantly involved in small-scale activities which have an immediate end in view: to get out of bed in the morning, to replenish the digestive stock, to work on something significant, etc. Life is filled with such goal-directed actions, varying from the trivial to the profound, many of which are discontinuous or unrelated to each other. Two typical uses of the phrase *ad hoc* bring out this variable but purposeful nature of human activity:

Left-over, fermenting soup added  
*ad hoc* to spaghetti improves its vapid  
taste  
and

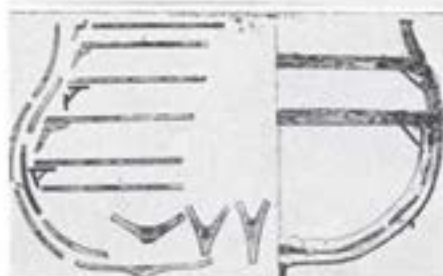
The *Ad Hoc* Committee to End the  
War in Vietnam was formed for the  
specific goal of ending that war and  
will disappear when its goal does.

These two statements distinguish adhocism from random, undirected or haphazard action with which it is sometimes confused. But if adhocism is indeed purposeful, how does it differ from other kinds of directed behavior? Basically, adhocism consists of a general and loose approach to a problem rather than a tight and systematic one. Thus, seventeenth-century boat-builders went into the forests to cut ready-made "subsystems" from the trees, combining them *ad hoc* to construct ships (2). In these combinations, because the subsystems were not tailor-made for their new role, there was a lot of extraneous material left over which later had to be cut away. The characteristic *ad hoc* amalgamation contains much that is inessential, much that is fortuitous and redundant. But if it is not as refined and precise as other kinds of purposeful action, then at least it is more open, suggestive and rich in possibilities. The extraneous material suggests new uses, whereas the perfected and refined construction is usually confined to its specified ends.

Perhaps the oldest and simplest method of creation consists of combining readily available subsystems *ad hoc*, since it is always easier to work with what is familiar and at hand than what is removed in space and time. At any rate, this is the characteristic mode of creation

in tribal cultures: the creation of masks, clothing, weapons and shelter from the materials available, such as bone, shell, wood, hair, etc. (3). The anthropologist Claude Lévi-Strauss has discussed this activity under its common French label, *bricolage*:

... the 'bricoleur' is still someone who works with his hands and uses devious means compared to those of a craftsman. ... The 'bricoleur' is adept at performing a large number of diverse tasks; but, unlike the engineer, he does not subordinate each of them to the availability of raw materials and tools conceived and procured for the purpose of the project. His universe of instruments is closed and the rules of his game are always to make do with 'whatever is at hand'. ... the engineer is always trying to make his way out of and go beyond the constraints imposed by a particular state of civilization while the 'bricoleur' by inclination or necessity always remains within them.<sup>1</sup>



(2) *Boat from trees*. Agents from the Royal Navy would first pick out the most suitable trees and then number the parts corresponding to the boat's desired shapes

1 Claude Lévi-Strauss, *The Savage Mind*, quotes from pp. 16-19. London, 1966.



The distinction between bricolage and engineering or science is one of degree and intention rather than kind or quality. Both the bricoleur and the scientist are motivated by a search after truth and deal equally rigorously with facts. They are equally objective. Both have to make use of pre-existing subsystems, but while the scientist tries to expand his initial set of resources, the bricoleur sticks with his existing resources as long as he possibly can. The distinction is between appropriateness and urgency. The scientist is intent on using the tools and hypothesis appropriate to his job, whereas the bricoleur or adhocist is intent on undertaking his job immediately, with whatever resources are available. Both are goal-oriented in a general way.

In fact, if one were to contrast adhocism with other activities and theories, it would be over the question of purposefulness. Such things as empiricism, search by trial and error, mechanistic determinism and, most emphatically, behaviorism, differ from adhocism on this point. They all substitute blind chance for purposeful creativity. For instance, in 1928 J. B. Watson, a father of Behaviorism, defined the principles of random or accidental creativity which are still held by Behaviorists today (although in a more sophisticated form):

*How the new comes into being: one natural question often raised is: How do we ever get new verbal creations such as a poem or a brilliant essay? The answer is that we get them by manipulating words, shifting them about until a new pattern is hit upon. . . . How do you suppose Patou builds a new gown? Has he any 'picture in his mind' of what the gown is to look like when it is finished? He has not. . . . He calls his model in, picks up a new piece of silk, throws it around her; he pulls it in here, he pulls it out there. . . . He manipulates the material until it takes on the semblance of a dress. . . . Not until the new creation aroused admiration and commendation, both his own and others, would manipulation be complete—the equivalent of the rat's finding food.<sup>2</sup>*

2 J. B. Watson, *Behaviourism*, pp. 198 ff. London, 1928.



(3) *Head of a sorcerer's carved staff, created ad hoc from feathers, hair, string, and carved wood; from Batak, Sumatra*

This denial of any picture in the creator's mind, indeed denial of the existence of the mind for the mechanism of a neutral brain, is an orthodox point among Behaviorists. Furthermore, they continue to place emphasis on happy accidents, on manipulating words at random until a "poem or brilliant essay" is luckily "hit upon" quite by chance. Finally, such purposefulness as there is lies in the "commendation" of society. Patou knows he has designed a good dress when society responds by buying out the line. It is not surprising that Watson stopped teaching Behaviorism and went on to help develop advertising as a big business in the United States. The ideology which denies individual purposefulness and places all motive power in the environment is well suited to successful mass manipulation. After all, advertising is Behaviorist conditioning applied to the mass market.

However, while Watson's approach may be pragmatically successful, what his quote obscures is the fact that "commendation" always has to occur in someone's mind (or brain), and that it will not occur unless that someone already has an idea of what sort of thing he might find commendable. What the Behaviorists are really asserting here is the tautology that successful things are those which are sought after by many people—a circular definition of success which obscures the important discovery of what people



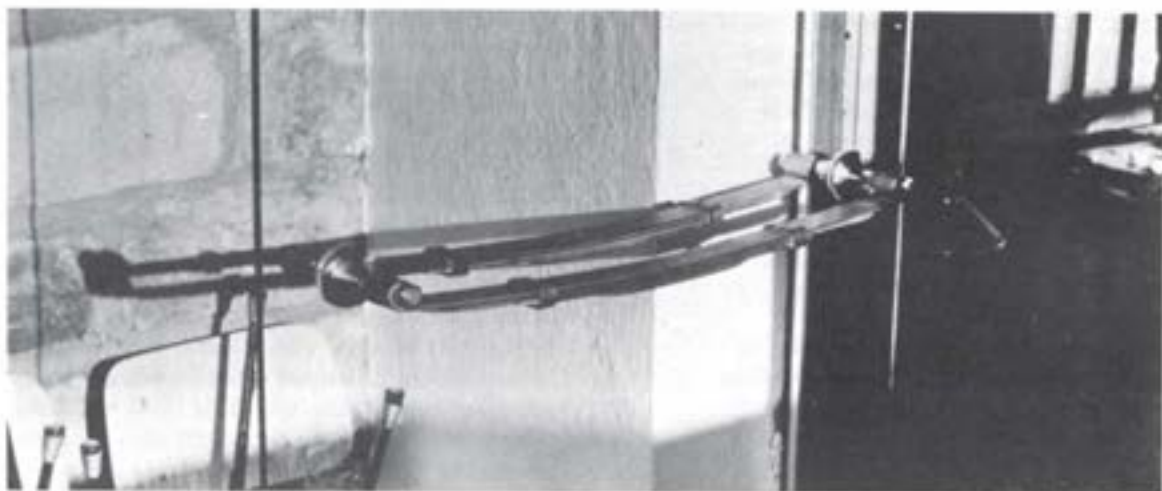
might find provocative in the future. Where luck, or random trial and error, do enter into successful creativity, they enter in as an aid to purposeful searching and not a substitute for it. Fortune, as the discoverer Louis Pasteur put it,

(4) *Japanese assembly line.* Matsushita Electric Co. As Aldous Huxley predicted, future tyrannies will be enjoyable rather than coercive. Every morning the workers sing the company song whose climactic phrase is "Grow, Industry, Grow, Grow, Grow," and they sing on key

(5) *Doorhandle from car springs in Spain.* This kind of personalized and witty use of industrial objects *ad hoc* can be found throughout the environment

favors the prepared, not the passive or empty, mind.

Hence the attack on the concept of a purposeful mind and the emphasis on random action can create particularly vicious circles. If a society believes in conditioning and progress through happy accidents, it will tend more toward passivity, and hence the acceptance of a stereotyped environment, than if it believes in purposeful creativity. If it is nurtured on this environment, it will be led to a further inactivity which will tend to confirm the initial belief in Behaviorism and determinism. Countless tests on animals that have been deprived of a stimulating environment in which they can actively participate have shown that they re-



main physically undeveloped. For instance, two kittens were brought up in a dark laboratory environment, where light was shown only in a carefully controlled way. One kitten could change its position when the light was shown and therefore developed sight; the other, which couldn't move at all in response to the light, remained blind.<sup>3</sup> Accounts of prisoners deprived of a rich environment tend to confirm these basic principles of atrophied development, although happily men are far more able to provide their own rich, internal world, no matter what the sensory deprivation, if their beliefs and will power are strong enough.<sup>4</sup>

Such comparisons between the animal and human worlds are no doubt both dangerous and melodramatic. So too are the analyses which show that the environment is becoming more stereotyped and totalitarian as different forms of determinism take hold in various parts of the world. (On this score things have probably become better not worse since the days of the Egyptian bureaucracies and the Roman army, both of which pervaded their societies.) Yet there are still today many deterministic ideologies that prevail in certain places such as large sections of corporate America and the Russian bureaucratic state. Most important are the countless organizations which have reached a complexity of development because they use and create advanced technology. While these areas of repression do not dominate the whole of everyone's life, they influence a substantial portion of it in such a way as to frustrate natural creativity and self-realization. They place impossible barriers between the initial idea of a goal and its final realization. This paralysis of will is a general theme of twentieth-century thought; the complaint about delayed or frustrated action has now become as ubiquitous as its various causes. No doubt they are multifold enough to resist any panacea, and it would seem naïve to suggest otherwise. Yet the basic justification for a mode of action and design such as adhocism is that it is in opposition to these negative forces, even if it is not the final answer

to them. It places purposeful action against the ideologies of determinism, and immediacy against the omnipresent delays caused by specialization and bureaucracy.

### Repressive forces

A plethora of things hinder man's ability to create a suitable environment—a world custom-built to his individual desires. There is the necessity of specialization and the systematic application of scientific knowledge which, as John Kenneth Galbraith argues, must accompany any advanced technology.<sup>5</sup> As he points out, to organize these specialists and pay back the great investment in capital which innovation demands, corporations must guarantee a certain amount of sales. Hence they standardize the product, drive out competitors and try to influence consumers into accepting things they might otherwise not want. This tendency towards standardization and cliché is an inexorable force in any advanced industrial state regardless of its ideology (4). Yet in human terms, in terms of allowing each man to shape the objects he fabricates as well as his environment (5), this force is absurd, if not actively destructive.

Another repressive factor is the system of hierarchical organization and elitist philosophy which enjoys an acceptance in the East and West. There are probably official hierarchies in every society in which each level of organization obeys commands from above and in turn tries to control the levels below. This vertical hierarchy comes to be justified as the natural course of things because men are equipped with varying talents. Yet again, from a human point of view, two objections can be made. For one thing, a hierarchy is unjust and contrary to the individual's desire to be able to affect any part of his life. And secondly, it is a rather inefficient way of organizing men's talents, for if they do vary, then they are likely to be out of phase with slow-changing hierarchies. Any organization except the most mechanized would come to a halt if decisions had to follow just the explicit structure; hence what we actually find in organizations is an implicit web of *ad hoc* relations which are determined by friendship, skill

3 For references to this experiment, see R. L. Gregory, *Eye and Brain*, World University Library, pp. 209 and 246. London, 1966.

4 For a discussion of how this difference in belief led to a difference in survival in the Nazi concentration camps see Viktor E. Frankl, *Man's Search for Meaning*. New York, 1963.

5 John Kenneth Galbraith, *The New Industrial State*, pp. 11–12. Boston, 1967.

and the particular problem at hand. The most talented organizations are those that can restructure themselves *ad hoc* with each new problem that arises, rather than have to strain the unique situation through the same old hierarchy.

Edward Banfield, in a recent book called *Political Influence*, gives a detailed account of the patterns of influence and control that have actually led to decisions in Chicago. He shows that although the lines of administrative and executive control have a formal structure which is a [hierarchical] tree, these formal chains of influence and authority are entirely overshadowed by the *ad hoc* lines of control which arise naturally as each new city problem presents itself. These *ad hoc* lines depend on who is interested in the matter, who has what at stake, who has what favors to trade with whom. This second structure, which is informal, working within the framework of the first, is really what controls public action. It varies from week to week, even from hour to hour, as one problem replaces another. Nobody's sphere of influence is entirely under the control of any one superior; each person is under different influences as the problems change. Although the organization chart in the mayor's office is a [hierarchical] tree [with few relations], the actual control and exercise of authority is semi-lattice-like (with many relations between the persons concerned).<sup>6</sup>

It is this latter tissue of unseen relations which makes up the life and energy of an organization, but unfortunately, whenever noticed it is usually lamented and suppressed, because of the prevailing elitist and fatalist philosophies.

### The genius and stupid rats

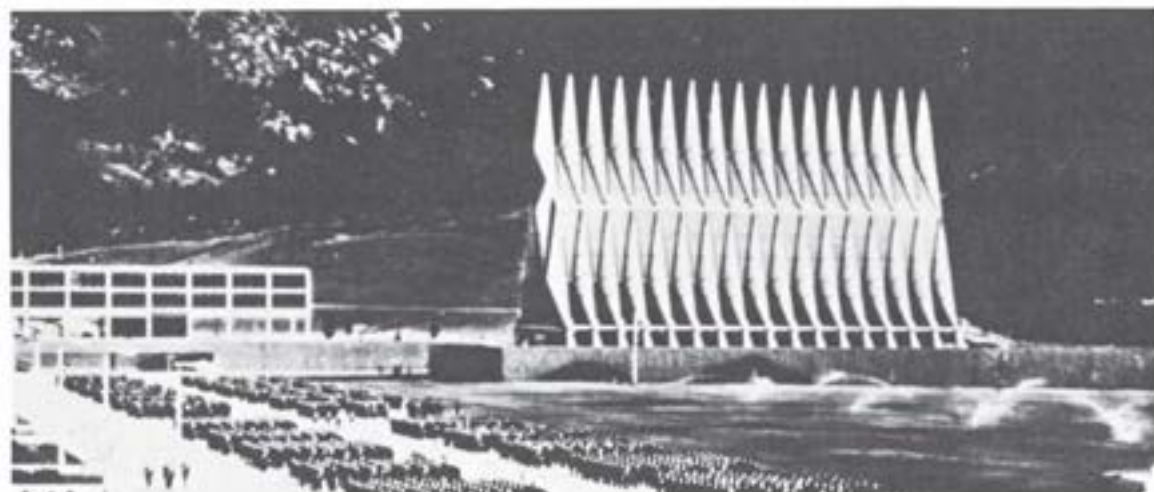
Most of these philosophies have been supported by the fatalism inherent in certain theories of our time, such as Darwinism and Behaviorism, which place the significant determinants of life *outside* the organism and *in* the environment. While external determinants do indeed act upon and partially shape the life of the individual, they are by no means the most significant forces (as is argued in chapter three), and their one-sided accentuation in our century has brought out the fatalistic attitudes in men. The most extreme cases have been, of course, the fatalistic totalitarian regimes of Hitler and Stalin which invoked a social determinism; but similar if less exaggerated tendencies can be observed in more liberal societies. If men are treated as conditioned automata with diminished responsibility they start to act as such, thus confirming pessimistic views on the power of external conditioning. But are men's mechanical responses proof of determinism or something else? The study of genius rats and stupid rats suggests an answer.

In a carefully controlled experiment, a group of research workers were given a set of specially bred "genius rats" who had an exceptionally high IQ and came from the most aristocratic rodent stock. All their ancestors had excellent records for quickly learning how to run through a maze (for these "behaviorist"-oriented research workers, the mark of a truly intelligent rat). Another group of workers were then given a set of "stupid rats." Both sets of scientists were, of course, trained in the methods of objective research and vigilantly guarded against the intrusion of subjective factors. As expected, the genius rats outperformed the stupid rats by quite a margin. They learned to run through the maze much faster than their underprivileged cousins. Yet what in fact was the difference between these two sets of rats? None at all. The test was a deception, an "experiment on the experimenters" rather than the rodents. The rats were all chosen at random from the same stock of common, garden variety. According to the scientist in charge of this double experiment, Robert Rosenthal,<sup>7</sup> the bias or expectation in

6 Christopher Alexander, "A City is not a Tree," *Design Magazine*, February 1966, pp. 53-54. As Mayor Daley proved during the 1968 Democratic Convention, Alexander's idea that "actual control" in a city is *ad hoc* is a bit too optimistic.

7 R. Rosenthal and K. L. Fode, "The Effect of Experimenter Bias on the Performance of the Albino Rat," *Behavioural Science* VIII, July 3, 1963.





(6) Skidmore, Owings & Merrill, *Colorado Air Force Academy*, 1961. 2,500 cadets march in unison to a tri-denominational chapel whose altar switches religion at the press of a button. An examination cheating scandal occurred among the cadets a few years ago and only a token few were expelled.

the research worker got across to the rats and either egged them on, as it were, or discouraged them.

As so often in Behaviorist theory, what holds true of the rat holds true of the human being. In a similar test carried out with schoolchildren, Rosenthal again found that expectations and bias were being transferred subconsciously from teacher to student, bringing about an objective difference in the students' work. In this experiment,<sup>8</sup> teachers were told that certain students were "spurters" who could be expected suddenly to improve academically. In fact, like the test of the genius rats and the stupid rats, the groups were chosen at random so there was no inherent difference in intelligence. But like the rats, those who were expected to improve faster did so.

These two tests, and others, have indicated the presence of the "self-fulfilling prophecy" in the social sciences and indeed in society itself. Rather than proving anything like a deterministic view of organisms, however, they showed the great flexibility and two-way determination

of events. A case in point is the large bureaucracy where men cheat and steal with impunity because the individual act has no significance, no effect (6). The bureaucracy programs the statistical rate of crime into its accounts, and writes it off beforehand as deterioration, wastage or breakage. The individual is expected to act in a certain way and so, like the "spurters," he does. But if we examine the difference between the organization's explanation—wastage or breakage—and the individual's—self-assertion, subversion—we can comprehend the actual two-way determination (or freedom) of events. Each side of the equation uses the other for its own intentions. There is a nice symbiotic relation reached between the two which is not without its ironic side.

The humor built into this dualism consists in the fact that each side considers itself to be the free agent and the other side a conditioned automaton. This was evident in a joke current among sociologists in the sixties:

One rat to another in a Skinner box:  
Oh boy, have I got this psychologist conditioned! Every time I press the lever he gives me a pellet of food.

As a more serious example of how a shift in intention can reverse the determination of events, there are the "Drop-Out Communities" which take the wastage and breakage—even garbage—of a consumer society and turn it into new food, energy and shelter (7). Or, during the 1968 May events, the youth of France threw up

<sup>8</sup> R. Rosenthal and L. F. Jacobson, "Teacher Expectations for the Disadvantaged," *Scientific American*, April 1968, pp. 19-23.





(7) *Drop City* home made *ad hoc* from the leftovers of a consumer society. The tactic of recycling waste material is more fully discussed below, page 68, and by Nathan Silver page 112

(8, 9) Shed clipped on to a bank in London, an office built over a chapel in Athens. Memory and choice are kept alive by adding *ad hoc* new functions on to old rather than replacing the environment

(10) *View down Park Avenue, New York, 1970*. What Norman Mailer called "empty landscapes of psychosis"

its barricades, its transient architecture, from the various objects it had on hand: paving stones, automobiles, etc.

There are many reactions to deterministic orthodoxies on a more philosophical level: Waddington and other biologists show that evolution proceeds from internal as well as external factors; Chomsky and other linguists show that in-built language competence limits the possible malleability of men and allows them a certain creativity or freedom denied by the Behaviorist linguists; Laing and other psychoanalysts show that men need to manipulate and form their local environment to sustain their identity and sanity. Again, the evidence supports the idea that an environment should allow for active, individual participation in its building. What this last point partly means in visual terms is that the environment should preserve a record of past action, so that present and future actions may become intelligible. The significance of individual action and group life could then find a memorialization instead of being suppressed every generation (8, 9), and the result would make economic sense, as Jane Jacobs has argued.

All these positive ideas have gained strength recently and have challenged the conventional orthodoxies so that one can now see a counter-view of man emerging that places much more emphasis on his creativity and self-determination. This happens to concur with the rebirth of a democratic mode of action where everyone is encouraged to create a personal environment out of impersonal subsystems whether they are new or old, modern or antique. By realizing his immediate needs, by combining *ad hoc* parts, the individual sustains and transcends himself. Shaping one's personal environment toward desired ends can break the vicious circle of sensory deprivation; much of the present environment, blank and unresponsive, is a key to idiocy and brainwashing (10).

### The prescient wit of art

As in so many cases of anticipation, artists have already explored much of the ground of adhocism, although their commitment has been mostly limited to the benign effects of satire and wit. For instance, one of the first such ex-



(11) Arcimboldo, *Erode*. The macabre wit of this portrait comes from combining three subsystems at once so that viewer can read it as face, nude bodies and crawling vermin slipping back and forth between interpretations

plorations by the Mannerist painter Arcimboldo consisted of satirical figures made up mostly from natural subsystems: twigs, forests, fruit and even human bodies (11). Here the satire extends beyond the wit of combining previously separated systems to an ironic comment on the embarrassing repetition of nature. The naked human bodies which make up this portrait are divested of any individual qualities to become a squirming mass of biological tissue. It's as if nature suddenly had a good idea and took out a workable patent on "man" in order to mass-produce this "success" endlessly until it saturated the market. By combining this idea with that of the portrait, Arcimboldo has managed to produce an ambivalent whole that has it both ways: a Renaissance individualist who is at the same time a faceless monster. As with all such combinations, the viewer can enjoy oscillating back and forth between interpretations, figure and ground, pleased by the fact that these combinations are always more than the mere object, the everyday interpretation.

"Everything can always become something else": this is the liberating slogan inherent in creations that transcend the clichés of which they are made. After various small-scale attempts in the nineteenth century, the Dadaists and Surrealists explored the latent power within the combination of stereotypes. Thus they continued the methods of Arcimboldo, except they





(12) Francis Picabia, *La Femme aux allumettes II*, 1920. Oil and collage

used mass-produced objects of man—buttons, matches, hairpins, etc. (12)—instead of nature's repetitions. One of the Surrealists' games, the Exquisite Corpse, consists in drawing various subsystems of the human body on a sheet, folding it over for the next section to be drawn and so on. When the sheet is finally finished, a put-together Exquisite Corpse is disclosed which has as many parts and variable interpretations as there are folds in the paper. While this form of adhocism is tenuous because of its lack of consistent purpose (because it is not controlled by a directive concept and does not contain considered relations between the parts)<sup>9</sup> it still can produce convincing examples. A more controlled example where the various meanings are highly related to a specific end is John Heartfield's photomontage "Hymn to the Forces of Yesterday: we pray to the power of the bomb" (13). The subsystems are here combined in a purposeful way so that the oppositions in content, between money and piety, bombshells and religion, are controlled.

At one time in the middle thirties the Surrealists became interested in the mass-produced object wrenched from its habitual context and placed in a new situation. They took as their

9 The distinction between successful and unsuccessful adhocism is discussed further on pages 33–37 and 115–18. The garbage thrown haphazardly into a pail is an example of unsuccessful adhocism because there are no "considered relations between the parts."

point of departure Lautréamont's pronouncement—"Beauty is the fortuitous encounter of a sewing machine and an umbrella on a dissecting table"—and then went on a rampage throughout the man-made environment, placing female models on red satin wheelbarrows, hanging 1,200 coal sacks from the ceiling, stuffing mannequins into taxicabs (where perversely it rained inside rather than out), shoving them down the trumpet of Victrola and cutting off their limbs to form chair "legs" (14). In the sixties this violent displacement reached a crescendo of fanatical pitch in the constructions of Edward Kienholz. His obsessive thoroughness in searching for exactly the right subsystem to achieve the intended effect places his work far above the more usually fortuitous constructions.



(13) John Heartfield's "Hymn to the Forces of Yesterday: we pray to the power of the bomb," 1934. With bombs used as steeples and money-signs instead of the cross, this cathedral of capitalist avarice shows *ad hoc* montage used in a purposeful way

(14) Kurt Seligmann, *Ultra-furniture*, from the 1938 exposition in Paris where the Surrealists developed their investigation of the industrial object to its furthest



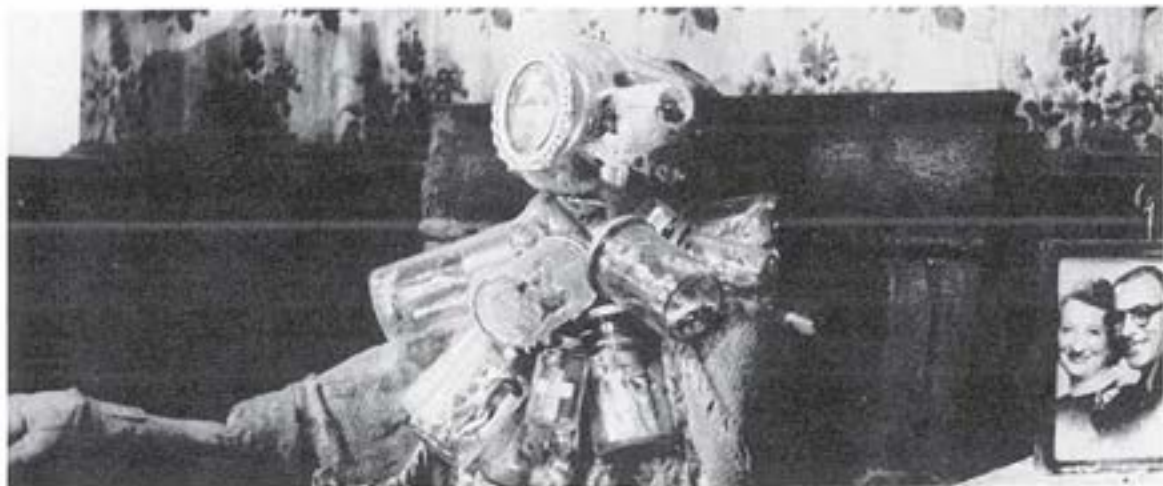




(15) Edward Kienholz, *The Wait*, 1964-65

(16) Close-up of *The Wait*

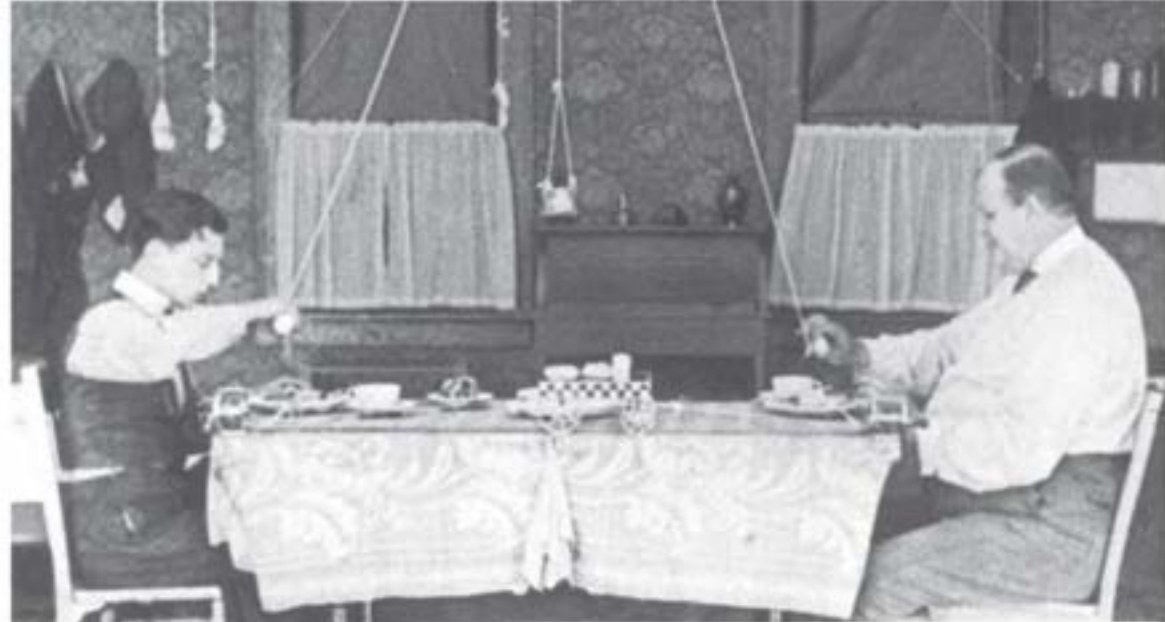
Collection of Whitney Museum of American Art, New York.  
Gift of the Howard and Jean Lipman Foundation Fund, Inc.



*The Wait* (15) concerns the anguish of some forlorn grandmother whose children have long since left home and whose husband is also absent (indicated by the yellowing tear-stained photographs with which she surrounds herself). She is accompanied in her wait by a heap of unfinished sewing that is covered with dust and other aged furnishings of the period such as decaying floral prints. Her face (or rather the pickled bones of a dead animal) sits on a necklace of bottled relics (presumably her memories) while all during her endless vigil a live yellow canary hops back and forth chirping mawkish encouragement. The commitment to carrying through this over-all mood of tawdry despair is unparalleled; the combination of ready-made parts is entirely without excess or

cuteness. They are carefully selected for a particular purpose which has been clearly drawn out according to its inherent potential.

Another artist, who exploited the spirit of adhocism in a different medium was Buster Keaton, especially in his films *Playhouse* and *Scarecrow*. In the latter, Keaton lives in a house where all the rooms are in one room. Here the Victrola can explode into action doubling as a gas stove; the sofa can turn into a bathtub which empties into a duck pond outside (an early example of recycling waste, this bathtub also has a third function as an escape route); condiments and cutlery are suspended on strings which swing off the wall, while an ingenious system of pulleys and flying trapezes allows



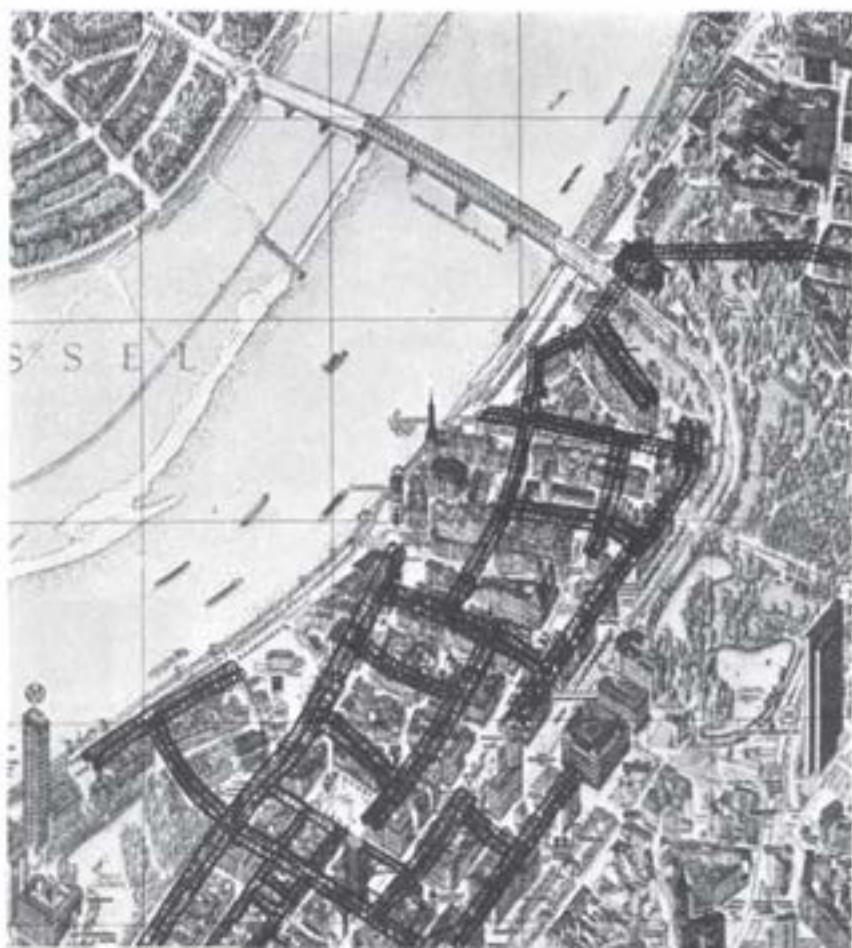
(17) Buster Keaton in *Scarecrow*. The table, all utensils and the food swing down from the walls, ceiling or cupboard

Keaton to extract a cool beer from the icebox behind him, open the bottle, pour a drink into a glass lowered from the ceiling and swing the bottle back into the cooler—all without having to budge an inch from his seat (17). Yankee ingenuity and the fascination with gadgetry are two themes that run through Keaton's movies. He is always trying to find a new use for old objects. A doorknob on a swinging door serves to pull out a sore tooth, an upended bed serves as a music organ, an umbrella serves, naturally, as a parachute while Keaton himself serves, when pushed by necessity, as a cannonball or boat.

Everything can always be something else. The artists who have caught the spirit of adhocism have shown this. They take the ready-made clichés of industrial society or bountiful nature and disconnect them from their habitual context. In this way the stereotypes of an advanced industrial state can be used to advantage; used in their ordinary contexts they stifle individual initiative and the development of personality. Used in a dislocated way they become refreshed through juxtaposition. The eighteenth-century wit was a man who combined heterogeneous ideas "by violence." If this combination is made for an immediate need or purpose, it forms a third entity, a relation; a purpose carried through to its end satisfies the mind and is the precondition for anything of greater significance.



(18) Bottle lamp





## 2 The Pluralist Universe, or Pluriverse

The man-made world is built up of fragments from the past.

We live in a pluralist world confronted by competing philosophies, and knowledge is in an *ad hoc*, fragmented state prior to some possible synthesis.

We live with plural interpretations of a pluriverse rather than a unified theory of a universe. The speed of new cosmological theories follows the speed of scientific innovation: "a new cosmology every week."

This situation on a large scale reflects the local situation. We live in cities which are built up over time as a palimpsest of many cultures, while any large city is a collection of many cultures over space. "Rome was not built in a day"—nor by one culture.

The objection to this pluralism, to such *ad hoc* amalgams of competing cultures, styles and theories, is that it is indecisive, arbitrary and confused. These are in certain cases the weaknesses of adhocism, although they obscure its essentially purposeful nature.

(19) *Lincoln Center area*, 1961–65. Economic interests combined with cultural elitism result in an urban project which suppresses pluralism and the past

(20) *The time city of Düsseldorf*, with a new lightweight technology clipped *ad hoc* to the older fabric. See also photos 26 and 229





(21) *Kepler's Model of the Universe, 1597.* A combination of pre-existing ideas. One set, from Copernicus, placed the orbits of the planets around the Sun in perfect circles. The other set, modified from Euclid, showed the ratio of the orbits as determined by the five, perfect solids. Between the walls of the spheres, Kepler accommodated the observed, erratic orbits

(22) *Close-up.* This wrong model led Kepler to the right theory of elliptical orbits

## The pluriverse

It would seem that mythological worlds have been built up only to be shattered again, and that new worlds were built from the fragments.

Franz Boas

It is not only mythological worlds that are constructed from the fragments of past systems, but probably every article fabricated by man, even including such things as his developing view of the universe—the evolution of cosmology.

In 1597, before Johannes Kepler made his most significant contribution to astronomy, he developed a theory of the universe which was based, as he said, on both "physical, or if you prefer, metaphysical reasons." This double-barreled and integrated argument, was a characteristic of nearly all astronomers up to his time. From the ancient Egyptians to Plato to Copernicus, the physical investigation of the universe was accompanied by and often supported by metaphysical questions. Thus the physical argument that the sun, not the earth, was the center of the universe was made, as Kepler said, because of the "analogy with God the Father, the Son and the Holy Ghost" (which were, respectively, the Sun, the Stars and the Space Between). Far from being merely convenient or just symbolic, as it might appear at first glance, this analogy was an eternal truth of both reason and reality: "It is by no means permissible to treat this analogy as an empty comparison; it must be considered by its Platonic form and archetypal quality as one of the primary causes."<sup>1</sup> This unequivocal commitment led Kepler directly to his model of the universe with its startling "Platonic form and archetypal quality" (21). He had discovered, as the philosophers had insisted, that ordered, symmetrical forms were the underlying reality. In fact the five and only five perfect, Platonic solids separated the six and only six known planets. All that was needed was a little fudging on the orbit of Mars and the holistic integration between physics and metaphysics was perfect. This was extraordinary; it could not be merely coincidental. Hence Kepler could say "The delight that I took in my discovery, I

1 Arthur Koestler, *The Act of Creation*, p. 125. London, 1967.

shall never be able to describe in words," and then try to do just that in a book titled *A Fore-runner to Cosmographical Treatises, concerning the Cosmic Mystery of the admirable proportions between the Heavenly Orbits and the true and proper reasons for their Numbers, Magnitudes and Periodic Motions*. This overwhelming title may sound strange to our ears, but it wouldn't to a contemporary of Kepler, who expected such research into the heavenly mysteries to fit in with a unified field of knowledge. It is quite different today when, because of discontinuities between fields and the overwhelming amount of knowledge, even the most comprehensive discoveries can be made without the extreme excitement they would have generated previously.

Still, there are some parallels with the present day. For instance, for "metaphysical reasons" that were actually wrong, Kepler was accidentally led to two right conclusions—a normal fluke at any time, since the common way of scientific advance is to look for gold and find diamonds. Also, and this brings up its relevance for ad hocism, he made use of pre-existing concepts and fused them into a new whole which could explain and tally with observation. In this he was no different from Newton or any other cosmologist. For even Newton, who formulated one of the few non-*ad hoc* cosmological systems, had to start with previous ideas such as the law of orbits (from Kepler) and the law of projectiles (from Galileo). He also had to combine these previous ideas into a third (the law of gravity), discard what was inappropriate and test this against the evidence. What makes the Newtonian cosmology and mechanics one of the few, precious non-*ad hoc* or "totalistic" systems is that it is a unified, highly interrelated theory which has been so often tested and modified that its parts are inextricably linked. It is finite, interrelated, limited and part of a "closed series." This is of utmost importance for the argument, because it distinguishes Newtonian cosmology from those of today. Another distinction is that Newtonian cosmology was motivated by a notion of certainty and by the idea that number, geometry and order prevailed over the universe—in short, motivated by the idea that the image of "God the Architect of the Universe" was not just a symbolic figure of the poet's imagination, but that it referred to a reality.

Today there are still very persuasive arguments which hold that order, or at least number, underlies the universe, or pluriverse. For instance:

... the great mathematician Paul Dirac observed that various basic constants—such as the mass and charge of the electron, the speed of light, the age of the universe and the total number of particles in it [sic] were connected by simple ratios ... the ratios always come out as  $10^{29}$  or (to be more accurate)  $10^{78.2}$

It is somewhat reassuring to know about these ratios even if they aren't quite as simple and elegant as the five Platonic solids and in the long run prove to be false. But even if they do constitute the basis of the universe, for two important reasons it is quite a different universe from the one Kepler or even the nineteenth century inhabited. First it is a pluriverse which has, for the moment, three or more competing explanations (23). Certain cosmologists hold the Big Bang Theory which contends that the universe is evolving after a primary explosion about twelve billion years ago. Current statistical star counts and the original noise of the Big Bang which is still around, in the form of microwave radiation, tend to confirm this theory. But there are other theories which have their own advantages, such as the theory that the universe oscillates every eighty-two billion years (give or take a few billion), or the one which holds that the universe is always in a Steady State of continual creation. The more recent, *ad hoc* amalgamation contends that the universe is, perhaps, as you might guess, in a continual state of Steady Bang.<sup>3</sup> This has an obvious advantage over the Big Bang theory, in that it avoids postulating one unique event, combined with the obvious advantage of the Steady State in holding that the universe appears to be much the same in every direction wherever you look and whenever you look.

The other main difference between today's pluriverse and the universe of the past is its

2 Gordon Rattray Taylor, "Men with Long Eyes," *Encounter*, December 1967, p. 46.

3 Fred Hoyle put forward such a theory in his George Harwin lecture to the Royal Astronomical Society, London, in February 1969. The phrase "Steady Bang Theory" was an *ad hoc* coinage of John Davy, science correspondent for the *Observer*.





is the best method for reducing error?" Thus, according to the philosopher of science Karl Popper, the fragmented areas of science and knowledge are based on conjectures that so far have not been refuted; but there is still no certainty, in spite of the preferred status of some conjectures that any particular one is absolutely true. Furthermore, in fields that are creatively active scientific theories are making their entrance and exit with a rapidity that underlines their hypothetical nature and reminds one of the constant reversals of fortune in a Victorian melodrama: a "new cosmology every week." It is now possible to be a spectator at this drama and look with excitement and amusement on those who claim that the universe is twelve billion years old rather than eternal, or that it will all end in the next seventy billion years with a final, cataclysmic implosion before the next oscillation. Whatever happens on a scale such as this certainly does not intersect with human affairs and can thus be regarded with aesthetic detachment.

But the more significant point is that we are now confronted with plural interpretations about a pluriverse instead of yesterday's unified theory about a universe. Since our view of the universe and our knowledge in general remains in a state of *ad hoc* amalgamation prior to some possible synthesis, it would be wrong to adopt a false and premature single-world view until this totalistic synthesis occurs. That would stop legitimate progress and evade the actual fragmentation of our knowledge.

### Plural cultures within the city

If this pluralism is a fitting way to approach the macrocosm and our fragmentary state of knowledge, it is even more relevant to the conditions of cities in advanced industrial states. Any large city is built up over time as a palimpsest of changing cultures, while over space it is a collection of subcultures and autonomous districts. The urge to regularize and simplify these amalgamations has been paramount in the nineteenth and twentieth centuries, finding encouragement both in the new technologies and in the utopian tradition of city planning. The desire has been to increase the efficiencies of transport and function and make clear the legibility of the city. Hence the urge for a

*tabula rasa*, a clean slate on which to inscribe the newest modes of organization. And yet this simplifying tendency has often worked contrary to the stated intentions. As Jane Jacobs has pointed out, it has constricted the variety of growth functions which aid each other in any expanding city (24), and it has destroyed the visible accentuation of districts and small-scale orders.

As to making the city more "legible" through simplicity, the intention was to recreate the old and classical ordering elements of the past: a regular geometry, a wall or boundary, a center, various monumental, high points and a comprehensible size. Basically the idea was to make the modern city as comprehensible as any pre-



(24) *Le Drugstore*, Kings Road, London, 1968. Grafting on new urban tissue rather than starting from scratch is economically sensible and creates striking contrasts in style and function

industrial city. But as posed, the realization of the idea was doomed because formative urban forces had irretrievably changed. The walls and boundaries which had divided nature from culture no longer existed. Even from an airplane five miles up, a city boundary, center and regular geometry were unperceivable (25). And yet today the city is nonetheless comprehensible to its inhabitants. Why? Because actual perception is not based just on the above-mentioned aids, but also on any *de facto* orders that can be divided into subsets. Men experience cities just as they read books and listen to speech—by dividing a continual flow of mean-

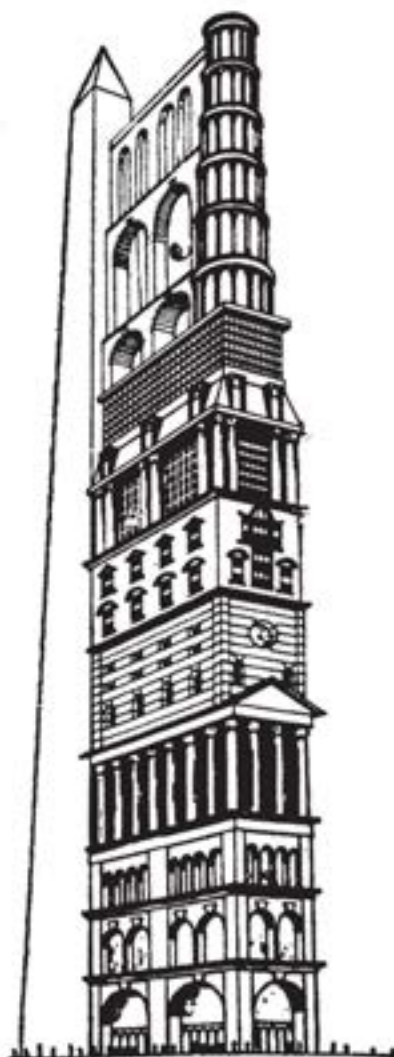




(25) *London five miles up*. What visual orders are perceivable? Certainly few of those that are found in pre-industrial towns and the simplifying schemes of urbanists. Nonetheless the overlay of orders is present: a transformational geometry, natural features like the Thames River, a quiltwork of districts, centers and open spaces. Above all, a close-knit set of "chunks" which are imperceptible at this height, but provide urban comprehensibility on the ground

(26) Wimmenauer, Szabo, Kasper & Meyer, *Project for a new artificial ground layer* to be built in a continuous strip over the old, urban subsets of Düsseldorf, 1969. Archaeology provides the metaphor for urban building: we progress up by layers of culture but without destroying the base. As we descend to the street level, we go back into the past

(27) Guy Debord, *Situationist map of Paris*. The subsets here correspond to perceptual districts



(28) John F. Corkhill, Jr. *Extension to the Washington Monument*, 1969. Among other elements a Roman aqueduct and a straightened, leaning tower of Pisa; this serious joke satirizes eclecticism as a substitute for appropriate symbolism

ings into smaller subsets such as grammatical order. These "chunks" are the means by which they process a large amount of information and just as classical grammars of the past were only partial selections from all possible "chunks," so too were the visual rules of classical architecture.

If one asks how a taxi driver navigates around a sprawling city, or how an inhabitant goes from one part of the city, which he knows well, to another, it will be found that he carries very rough directional models or subsets in his head

which he fills out as he proceeds. He does not see a whole picture of the journey, or a completely distinct map, but rather a series of routes and vague areas which come in and out of focus like the perception of sequential meanings on a page. Hence one desirable goal in urban design is to create and reinforce these subsets on whatever level they happen to exist, and not merely use the classical means of order. Thus an *ad hoc* amalgamation of past subsystems and present overlays can be compiled without tearing apart the urban tissue every generation (26). In their most successful form these superimposed subsets would correspond to the plurality of subcultures, and urbanism based on an *ad hoc* approach would not seek to deny or suppress them (27).

### Objections to the pluralism of adhocism

But what about the recurrent dream of starting over again from scratch, or the equally powerful desire to construct a unified utopia based on ultimate values such as equality and freedom? The objections to the pluralism of an *ad hoc* approach from planners, Marxists and visionaries alike is that it is too permissive. Adhocism preserves the status quo, it sacrifices future goals for present expediency and it tends to be confused, arbitrary, cute and complacent (28). No doubt some of these objections are well-founded and damaging to adhocism as a holistic doctrine, for it can have some of the above listed defects unless they are carefully guarded against with counter values. And adhocism is not a unified world view in the manner of the more familiar ideologies or "isms" which are offered as such. On the contrary, it is a transitional philosophy based on the premise that the future goal of man, a single destiny for the species, cannot be specified in advance. If this destiny were clear-cut and obvious, then politics could disappear and the totalitarian state would be justified, indeed inevitable. Having settled on the journey's final goal with certainty, one could enforce the various means of reaching it.

However, if one assumes that final destinations are subject to change and debate, and that freedom consists in the right continually to create new destinations as one proceeds, then pluralism and politics re-emerge (29). Adhoc-





(29) Córdoba, eighth century and later. This mosque is made from a "mega-structure" of 850 columns carrying double arches of red and white stone. It has been reconverted several times and today certain areas, such as the one shown, serve Christian functions

(30) Wells Cathedral retrochoir. The ribs here are swallowed by a well-placed lion's head because the architect ran out of space at the top of the vault, and couldn't achieve a symmetry of ribs without this expedient measure. Brilliant architecture, but bad science



ism is based on the premise that the human condition is a perpetual plurality of questioned and questionable ends, with certainty and a unified, holistic end appropriately left to the gods.

Yet the idea of a clear and unified end is just as necessary a regulative concept for everyday life as the idea of absolute truth is to the development of science. Without objective and absolute standards, men fall into a relativity and pragmatism that are self-serving yet ultimately disastrous.<sup>4</sup> It is for this reason that Karl Popper attacks the *ad hoc* approach as a methodology for developing knowledge. Several quotations point out his objections:

... it is well known that *ad hoc* hypotheses are disliked by scientists: they are at best, stop-gaps, not real aims. (Scientists prefer a bold hypothesis, because it can be more severely tested, and *independently* tested) ...

One can show that the methodology of science (and the history of science also) becomes understandable in its details if we assume that the aim of science is to get explanatory theories which are as little *ad hoc* as possible: a "good" theory is not *ad hoc*, while a "bad" theory is.

The reason such an approach is "bad" in science is that, like the *Principle of Complementarity*, which the great atomic physicist Niels Bohr introduced in 1927, it is

... used ... *ad hoc* in order to provide an escape for the theory from certain contradictions by which it is threatened ...

I trust that physicists will soon come to realize that the principle of complementarity is *ad hoc*, and (what is more important) that its only function is to avoid criticism and to prevent the discussion of physical interpretations.

In other words, the *ad hoc* approach allows the scientist to introduce extraneous hypotheses whenever he faces a problem or contradic-

<sup>4</sup> See the discussion of the "reign of terror" during revolution, pp. 96-97.

tion, just as a child changes the rules of solitaire every time he starts to lose (30). The modification of the Ptolemaic theory of the universe, epicycle by epicycle, is perhaps the most notable example of this form of subterfuge. Besides leaving us in error, it encourages us to remain in error:

. . . from a couple of contradictory premises any conclusions may be deduced. . . . such a makeshift theory [*ad hoc*] gives rise to the grave dangers previously discussed: if we seriously intend to put up with it then nothing will make us search for a better theory; and also the other way round: if we look for a better theory, then we do so because we think the theory we have described is a bad one, *owing to the contradictions involved*. The acceptance of contradictions must lead here as elsewhere to the end of criticism, and thus to the collapse of science.<sup>5</sup>

If Popper's objections are sound, then we would have to limit adhocism to a prescientific condition, before the resolution of conflicting explanations makes a theory unified and simple. Furthermore, we would have to regard it as a dubious state of imperfection in which our knowledge is fragmentary and contradictory, a state to be transcended as soon as possible. The idea of absolute truth as a terminus of research must be kept as a regulative idea if we are not to remain in ignorance.

Nevertheless, by contrast, it is just as important to realize that most of our knowledge is partial and at a stage prior to perfect synthesis and resolution. As the next chapter describes, all syntheses are initially *ad hoc*, even ones that are later refined and perfected. Such an ubiquitous and necessary condition deserves just as much acknowledgment as its opposite. In a very real sense adhocism is only a partial theory, one-half a philosophy, to be supported by other approaches which are complementary. If it has some dangers—the cynical politician, for example, who piles up promises *ad hoc* to suit a changing audience—then these can be recognized and carefully guarded against. One

putative danger, the idea that the approach leads to arbitrariness and complacency, is not true. It fails to take into account the fact that subsets are put together to satisfy a specific *purpose*: this distinguishes adhocism from random shuffling and other procedures which are substitutes for thought.

5 The five quotes from Karl R. Popper are taken from his *Conjectures and Refutations*, p. 287, p. 61, p. 101, p. 114, pp. 321–22. London, 1963.





### 3 Mechanical, Natural and Critical Evolution

Contrary to some theories, both design and nature are radically traditional; they work with subsystems which have existed in the past. All creations are initially *ad hoc* combinations of past subsystems; "nothing can be created out of nothing."

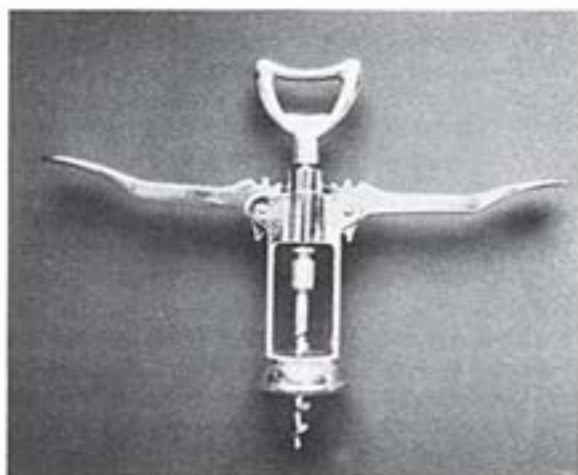
The first bicycle and automobile were made up from *ad hoc* parts; after their subsystems were refined and highly interrelated, these vehicles reached a relatively stabilized norm and the end of an evolutionary series. They became non-*ad hoc* or totalistic.

Organic evolution proceeds by combining and modifying subsystems through the medium of genetic material. By these combinations the subsystems exert a certain restraining force—a "multivise"—which allows only several evolutionary possibilities.

However, natural evolution and its few possibilities are not necessarily beneficial for men. We must project forward many possible trends, not just mechanical and natural ones, and then dissect apart their positive and negative consequences, recombining *ad hoc* those totalities we desire. Dissectibility is the essence of *ad hoc*ism and critical evolution; contrary to the Romantic poets, we murder *not* to dissect.

(31) *Russian prefab house* being flown to a new site. When cut at the proper joints, the environment, like a chicken, falls into edible pieces

(32) *Roosevelt Field Shopping Center*. Monolithic developments carry positive and negative consequences without distinction. The economic advantage of mass shopping has not been dissected from the disadvantage of ecological overspecialization



(33) *Four new ways of seeing the corkscrew: a soldier at attention, a hold-up, a traffic policeman and a rocket on a launching-pad. The form happens to work metaphorically in these roles and not in others*

### Creation from subsystems

Nearly all creations are initially *ad hoc* combinations of past subsystems. This is itself an old idea: Lucretius said in the first century B.C. that "nothing can be created out of nothing," while Francis M. Cornford more recently exaggerated and mocked this necessary conservatism with the rule for tradition-bound academics that "nothing should ever be done for the first time!"<sup>1</sup> While this is a sardonic overstatement, it does point to the underlying truth that there has, by necessity, to be something of the old in whatever is new, since all creations depend on the modification and recombination of pre-existing things.

We can find this principle operating in the history of ideas, mechanical and natural evolution. Take, for instance, the simplest form of creation, the object which is transformed by association with a new idea. The common, everyday corkscrew can be transformed into a soldier at attention, a traffic policeman, or a rocket, depending on the disposition of its "arms" and the mental set of the observer (33). In this case, two systems are combined: the actual, banal corkscrew in its familiar role, and its resemblance to various human and mechanical functions. The juxtaposition of these two systems is slightly humorous because they are fairly implausible and distant. But note: their synthesis is allowed only because these two different systems have something in common. Without this link, no synthesis would occur and the juxtaposition would be without purpose or *non-ad hoc*. This metaphorical transformation of everyday objects is found everywhere in culture, as we can see by the application of old-fashioned words and concepts to new functions. For instance, we send a man to the moon and call it the "Apollo Space Program"—rather an extreme metaphorical transformation since this Greek god had little to do with rockets and in any case was the incarnation of the sun.

### Mechanical evolution and the lesson of the bicycle seat

But what about the creation of objects, tools and machines? We are sometimes told by his-

torians of the Machine Age that the inventions of the Industrial Revolution were "entirely radical," in Reynier Banham's words; or indicated a mutation in our culture with respect to the past. It seems to us that the speed of innovation has accelerated at such an alarming rate that all previous societies are thrown into question, all traditions jettisoned, all sensibilities outmoded, and there is nothing to rely on except our raw power to invent and our agility at riding the wave of the future. The succession of advances in technology—reinforced concrete replacing masonry, steel replacing reinforced concrete, plastics and pneumatic structure replacing steel, forced air replacing plastics, gravity fields replacing forced air, etc.—is so cataclysmic that it often seems that there is nothing to trust but our willingness to discover the new possibilities inherent in each technology. This idea, an essential contribution of the Italian Futurists, would mean that every new technology should be exploited for its underlying potential and dramatized to its furthest extent. Thus all steel skyscrapers would be transparent and soaring while all pneumatic buildings would be bulbous and pudgy, etc. This has much to recommend it since it normally leads to the most extreme exploitation of innovations as well as to their psychic assimilation.

It is not very fruitful to deny or attack these waves of the future, and they can best be utilized if they are ridden and directed with enjoyment. Yet in one important way, the Futurists and prophets of technological change betray a naïveté which perhaps stems from the apparent cultural novelty of the Industrial Revolution itself. They believe that some inventions are "entirely radical" or completely original. This is tantamount to believing that things can be created *ex nihilo*—spontaneously out of nothing—a probable impossibility. Another concept, that all things undergo constant and unrelenting change, usually accompanies this idea and is equally questionable. What we actually find are a variety of evolutionary series which begin *ad hoc* out of the amalgamation of past subsystems, and end or stabilize in a finite group of integrated archetypes.

We can usually see the adhocism at the start of any evolutionary series, whether it is the hovercraft (34), bicycle (35), automobile (38)

1 F. M. Cornford, *Microcosmographia Academica*, Cambridge, 1908.



**This hare-brained looking device created Britain's hovercraft lead**

British ingenuity is keeping this country ahead on land, sea and air. And Life Assurance is making a big contribution.

Hovercraft are a new and exciting mode of transport. They can travel on land, water or even in the air. They are fast, efficient and can carry large loads. They are also very safe. In fact, they are the most reliable mode of transport available today.

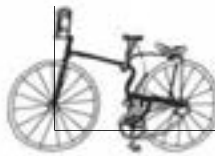
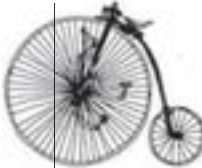
Life Assurance is the only company in the world that has been awarded the Hovercraft Award of Merit. This is a testament to the company's commitment to excellence in service and innovation.

Life Assurance is the only company in the world that has been awarded the Hovercraft Award of Merit. This is a testament to the company's commitment to excellence in service and innovation.

**Life Assurance does a good job for Britain**

(34) *Hovercraft parts* as they were first tested conceptually

(35) *Evolutionary series of the bicycle*. At the start of the series the five main subsystems are clearly delineated: (a) the wheels, (b) seat, (c) handle bars, (d) frame, (e) prime mover (feet, pedals, etc.). Towards the end of the series, the parts and their interrelation stabilize in their most economic form and the object is no longer *ad hoc* (such as the bicycle frame today)





(36) Six uses of the bicycle seat. Reading clockwise from left bottom:

- a) André Breton, *Symbolic object*, 1931
- b) *Esquire* cover, December 1966
- c) Pablo Picasso, *Bull's head*, 1943
- d) Surgeon's operating chair-stool, 1965
- e) *Motorcycle*
- f) *Bergmann machine-gun*, 1905
- g) *Exercise machine*, 1968

or train (37). This is the most exciting moment visually and conceptually. It corresponds to the moment when previous limits are overcome and a flood of new possibilities enter the world. The right to begin anew, the right of revolution (which Thomas Jefferson wanted to guarantee for each generation) finds its equivalent at the generative stage of a new tool or institution. After this creative stage, the object becomes conventionalized and certain of its parts become stabilized in their most economic and efficient forms (such as the bicycle frame, which hasn't changed in the standard model for eighty years). If the evolutionary series is long enough and is functionally responsive, then it will reach the point, as with the present bicycle, where not only the parts but also their interrelations will be fixed in the most economic balance. If no new factor is introduced into this equation, such as a new material or purpose, then the bicycle, or whatever, can be said to have reached its perfect state of development.<sup>2</sup> All its parts are both highly inter-related and highly specialized, so that changing

any one will disrupt the total equilibrium. Thus the result, like the Newtonian Cosmology, or a classical building, is an "organic whole," one that is finite, limited, closed and totalistic. All parts of such creations are tailor-made to fit their interrelationship and no further radical development of the whole is possible.

However, this does not mean that each part is also stabilized. For instance, the bicycle seat can be taken out of context and sent through a new development. On the associative level, the Surrealist André Breton has transposed the bicycle seat into an accidental contrast with a cutting board, leaves and other objects (36a). This shift in meaning has the virtue of its vice. Because of its "accidental" nature, new and striking associations may appear which would have been overlooked in a planned creation. We search to find meanings where none is intended, simply because the usual meanings are avoided and the mind is led beyond the cliché of the bicycle context. However, there are possibilities even on this level of the habitual and usual: (b) the *Esquire* cover manages to make a slight double shift in meaning. Here the bicycle seat is partially hidden, belongs to a motorcycle and retains part of its sexual connotation as something placed between the legs to pump on furiously.

2 Of course, the changes in the bicycle frame which have occurred over the last eighty years represent precisely a "new factor in the equation"; for very small or large bicycles the frame is different from the standard, nearly triangular one.

The sexual overtones were not formulated this explicitly but they are, nonetheless, obviously being used by the designer. Another possible use of the bicycle seat, this time on a metaphorical level, is that of Picasso's *Bull's Head* (c), which depends on the fact that the form lends itself to being seen as an animal face. Finally, on the functional level, the operating chair-stool and machine-gun (d, f) both make use of the fact that a bicycle seat allows leg movement while still giving support. Thus there are five new uses of this single form which was originally stabilized in the bicycle series. All these new uses are *ad hoc* and all, except the first, exploit the all-important principle that any form *can work in certain contexts and not in others*. In other words, if we may extract a lesson from the bicycle seat, it is that any form is a possible member of a limited but open set, a condition for which I will coin the term "multivise." This word has the semantic advantage of calling attention to two complementary qualities—the "multi"-potentiality of any form as well as its inherent vise-like restrictedness.

To see what this openness and limitation mean, take the canonical *ad hoc* object, the wheel. Clearly the wheel cannot be used for just anything and its possibilities are limited by its round form. But as the great number of its functions testify, there is no way of stopping the uses it can have. To be specific, when the wheel was first used on a cart no one thought that a potter might use it differently. And no one could predict that there would soon be waterwheels, mill wheels, clock wheels, gear wheels, cogwheels, cosmological wheels, wheels of fortune, steering wheels, wheelchairs, wheelbarrows, turbine wheels, roulette wheels, wheelers and dealers and even "big wheels." Our whole civilization was soon rolling on the object in one way or another. The wheel is what I have termed a multivise or what Arthur Koestler termed a "holon"—a member of an open, limited set which is waiting to be extended. With this in mind, it makes less sense to ask the final, metaphysical question "What is the perfect wheel?" than the more immediate question "What is the perfect wheel for this particular purpose?"

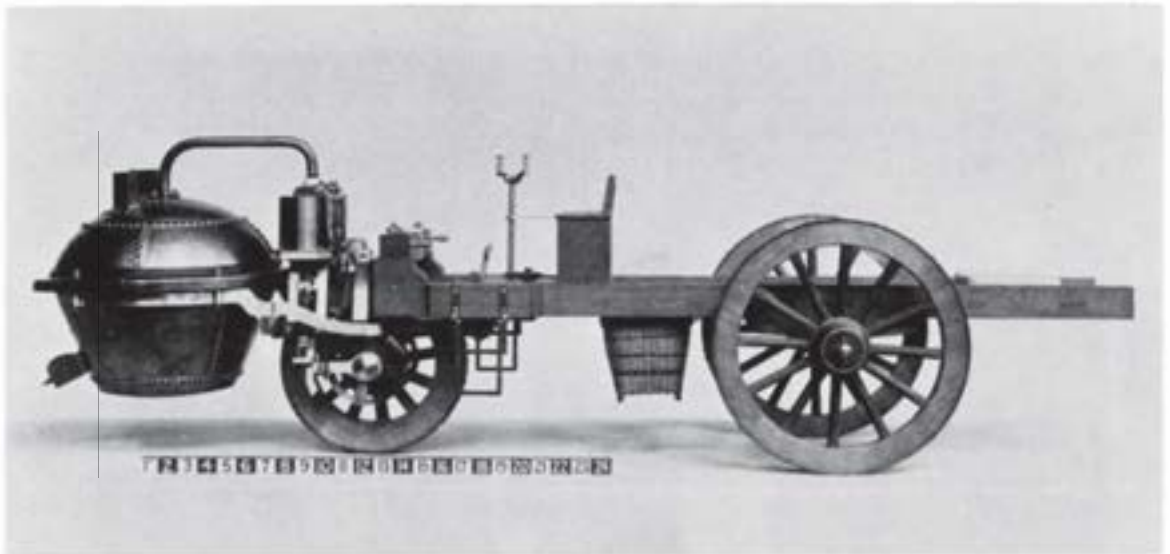
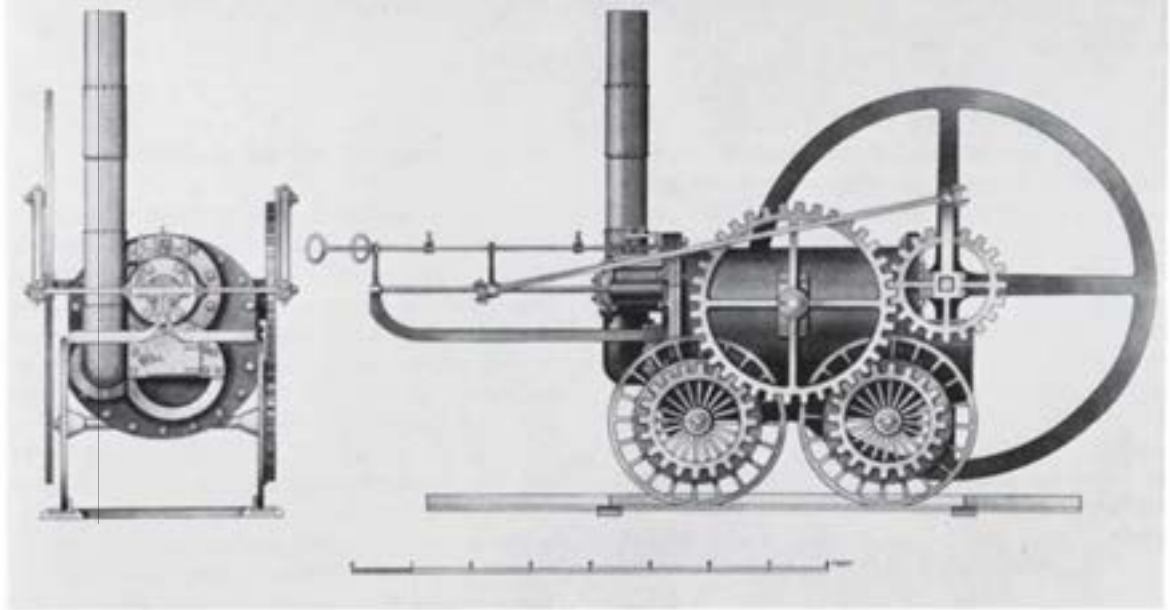
If we generalize from these examples and follow Koestler's argument,<sup>3</sup> we come to some

surprising conclusions. Koestler defines a holon as a subsystem or subassembly which is always both a part and a whole. A holon, such as a bicycle seat, is both a dependent part of a larger set, the bicycle or machine-gun, and an autonomous whole over a smaller set, the leather covering, spring and cushion, etc. The fact that it is an *autonomous* whole means that it can be transplanted from one context to another, and the fact that it is a *subordinate* part means that its uses are limited and finite. If we look at any organism or mechanism, we see that it is made up of holons such as circulation systems, organs, external skins, etc., which are semi-independent. Furthermore, the whole object itself is inevitably a subordinate part of a larger group, such as the social system or highway system, so in effect it is difficult if not impossible to find a pure whole or part in nature, but rather just a continuum of related holons.

The virtue of this concept is in its explanatory power. Although there are irreducible differences between cities, machines, organisms and works of art, they can all be looked at fruitfully from this "systems" point of view because of their analogous relations. The analogy that a building or city is like a man has of course been proposed, exposed and disposed of since Vitruvius, and it would be fatuous to suggest that one is reducible to the other or that they have anything more in common than their conceptual breakdown into autonomous subsets. Nevertheless, this point of view offers a distinct contrast to the prevailing orthodoxies: one can see why both design and nature are so radically traditional, why so few species or vehicles have evolved, why transplant surgery is possible, and why evolution proceeds locally with purpose. Above all, one can see why it would be foolish to follow the modern designer's attempt to start every problem with a clean slate and to try to invent a new substitute for the wheel for every wheel-like problem. Christopher Alexander, for example, argues that the designer should consciously purge himself of conceptual and verbal categories so that he can discover the true analysis of the design problem without these distorting schemata.

3 Arthur Koestler, *The Ghost in the Machine*, pp. 48 ff. London, 1967. Many of the arguments of this and the next section can be found in Koestler's book.





Above all, the designer must resist the temptation to summarize the contents of the (rigorous analysis) in terms of well-known verbal concepts. . . . If he tries to do that, he denies the whole purpose of this analysis, by allowing verbal preconceptions to interfere with the pattern which the program shows him. The effect of the design program is that each set of requirements draws his attention to just one major physical and functional issue, rather than to some verbal or preconceived issue.<sup>4</sup>

<sup>4</sup> Christopher Alexander, *Notes on the Synthesis of Form*, pp. 127–28. Cambridge, Massachusetts, 1964.

(37) The first "Loco-motor" by Richard Trevithick, 1804, made up from five visible subsystems: (a) Watt's steam engine, (b) rails from mine shafts, (c) exhaust stack from chimneys, (d) gears and pistons, (f) wheels

(38) The first "car" (really an artillery tractor) by Nicolas Cugnot, 1769, made up from six visible subsystems: (a) steam boiler, (b) two piston cylinders, (c) front drive wheel, (d) seating box, (e) luggage basket, and (f) steering lever. This monster fell on its heavy nose and demolished stone walls before it was put out of its misery. The car had to wait another hundred years for its development



The main justification for such semantic cleansing and conceptual purging is that designers are now faced with totally new and very complex problems which require rethinking from the start. However, even if the problems are unique and relatively complicated, they are never so much so that all previous schemata are totally useless. We in fact make good use of our preconceptions, along with their verbal labels—like the “wheel”—which key us in to similar problem-types (37, 38). If nature had to proceed inductively and without preconceptions, as systematic and post-Bauhaus designers wish architects to do, then nothing more complex than a styled-up amoeba would ever have evolved.

#### Natural evolution and the multivise

It could be argued that to proceed beyond the amoeba, nature had to make use of preconception—the multivise or restricted potentiality—which is a view of evolution contrary to prevailing theories. The Neo-Darwinian view of evolution, which today is still the major orthodoxy, asks us to believe in a continuous series of highly improbable events. Basically it wishes to convince us that natural selection proceeds by *external* factors operating on random mutations which occur in a host of organisms. The process is blind and accidental except that it favors the fittest mutations. However, the odds that the right mutations for such a complex as the eye will all occur at once, at the right time,



(39) *Bug-eyed monster environment* of Richard Hamilton at This is Tomorrow Exhibition, 1956. Man-machine hybrids are predicted for the turn of the century; they suggest an unlimited openness for evolution

(40) *Homologous structure*: the same general form with a different specific function in four different species (after *Life; An Introduction to Biology*, by G. G. Simpson)

and in the right order, are astronomically small. We are asked by Neo-Darwinians to believe that evolution is a sequence of such miracles, that it is blind and could potentially proceed in any-which-way—so long as the environmental system demanded it—even producing such wonders of science fiction as the “bug-eyed monster” (39). Yet what if everything is not possible in evolution? It seems likely, for logical reasons alone, that there must be some *Internal Factors in Evolution* which organize and select out mutations even before external factors in the environment become operative.

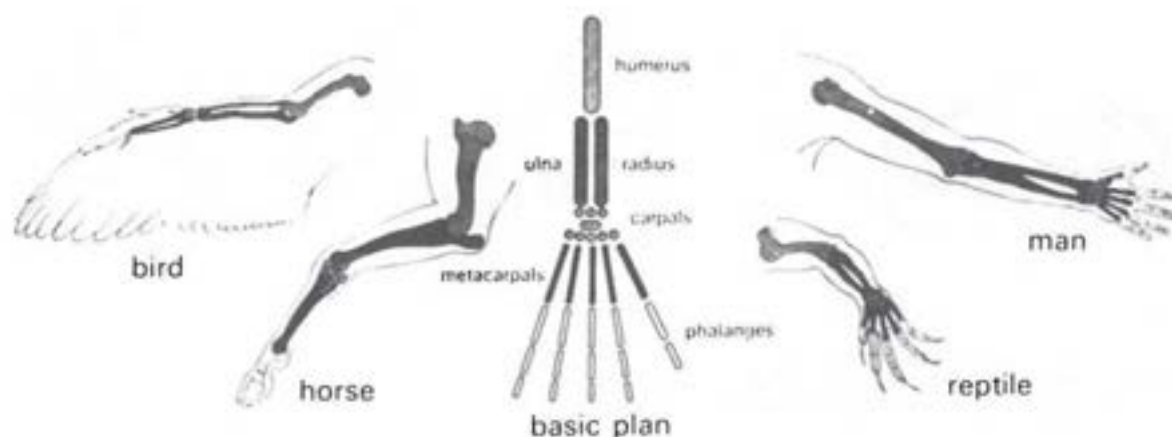
The idea is that in addition to Darwinian selection another selective process has also played an important role in determining the evolution of the species. It is now being suggested that beside the well-established external competitive selection of the “synthetic” theory of evolution, an internal selection process acts directly on mutations, mainly at the molecular, chromosomal, and cellular levels, in terms not of struggle and competition, but of the system’s capacity for coordinated activity. The Darwinian criterion of fitness for external competition has to be supplemented by another: that of good internal coordination.<sup>5</sup>

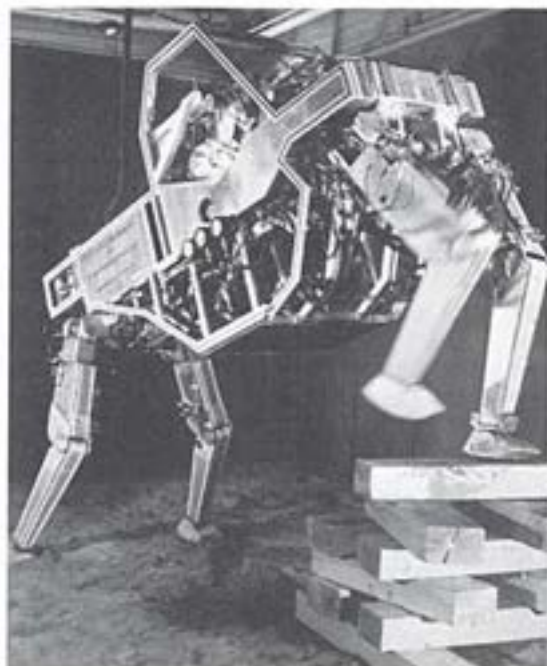
5 Lancelot Law Whyte, *Internal Factors in Evolution*, Social Science Paperbacks, p. xiv. London, 1965.

These internal factors operate in some as yet unknown way to select-out most harmful mutations and retain those which are helpful to a subsystem or the organism as a whole.

On a different level, we can also see the existence of purposeful mechanisms which allow certain advantages to develop while radically denying others. I have already coined the word *multivise* to describe this two-sided aspect of subsystems and forms. An example of the *multivise* in natural evolution is the “homologous structure” (40), which is the presence of the *same* general form in a series of *different*, specific functions. Once again, it is as if nature, or evolution, were a parsimonious mechanic who, having discovered the efficiency of a particular tool, then went on to take out a patent and modify it as much as possible for various jobs. Although the same general form does have many different functions, there are in all cases the common factors of a highly abstract principle of movement and an economic distribution of forces. The presence of these positive limitations allows the variety and the few routes open to the future—even those found in man-made constructions (41).

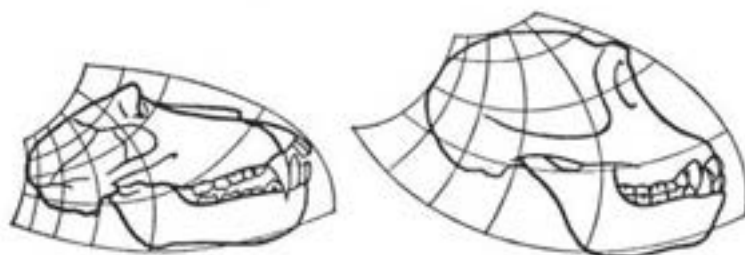
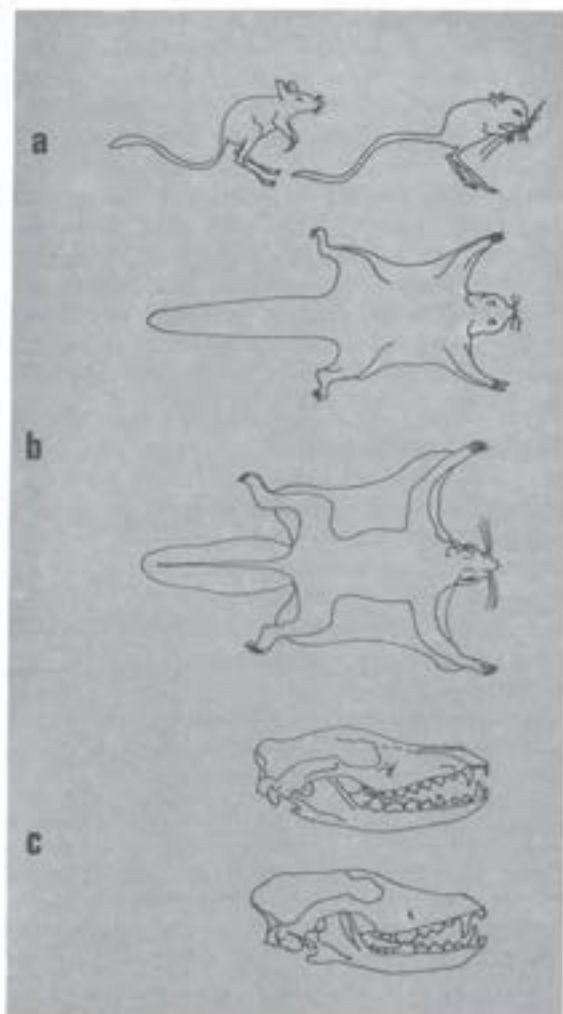
Another example in nature of the *multivise*, or the open but limited possibility, is what is called the law of balance. Because a species has to evolve as a whole, or the relation between all subsystems has to remain relatively balanced, there is a continuous variation in form which can be analyzed (42). Contrary to the dreams of science fiction, there are no wild discontinuities or cataclysmic growths of



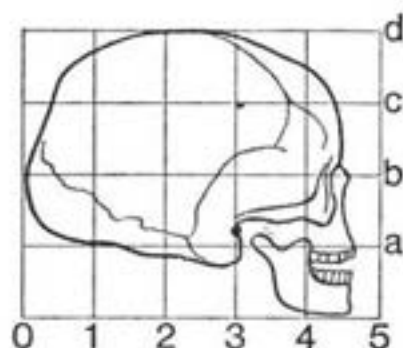


(41) CAM, the Cybernated Automated Mechanism, 1969, by General Electric. The modified form of the previous homologous structure can be found in this walking machine. The principle of force-feedback had to be built into the machine, so that the operator could "feel" his environment and keep from destroying it

(43) a. Marsupial jerboa and placental jerboa. b. Marsupial flying phalanger and placental flying squirrel. c. Skull of marsupial Tasmanian wolf and skull of placental wolf (after Alister Hardy, *The Living Stream*)



(42) D'Arcy Thompson, *Principle of Continuity*; skulls of a baboon, chimpanzee and man on coordinates which are continuously distorted with respect to man. The skull evolved as a whole interdependent system and thus shows orderly transformation

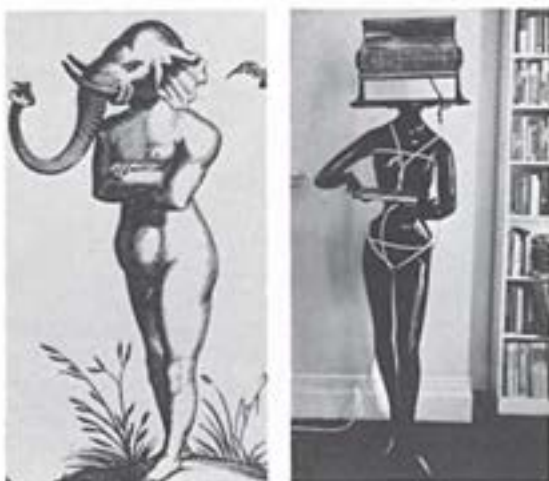




one specialized organ at the expense of another. The subsystems in their interrelation would select out or abort any mutations that might lead to the bug-eyed monster.

A final example of the open but limited potentiality operating in evolution is what is called "adaptive similarity" by Neo-Darwinians. This theory holds that marsupials and placentals, which have evolved separately over one hundred and fifty million years on different continents, end up by looking alike, or converging, because their environment or their predators are the same (43). Yet neither of these putative similarities actually does exist and once again the theory points toward a highly unlikely occurrence—that a blind, external selective force will produce animals who are similar although separated by thousands of miles and millions of years. But instead of having to believe this, we could once again postulate the much more likely hypothesis that similar internal factors, or limited possibilities, produce the similarity of converging species.

One of the oldest ideas of evolution, held by the Greek Empedocles, bore a resemblance to Darwin's ideas but with a strange difference. Empedocles held that different animal parts—the head of an elephant and the torso and legs of a man, for instance (44)—wander around in search of each other and then combine into new organisms, with the fittest combinations surviving the struggle for existence. These chimeras, half man-half beast, were more than just an idea among biologists; they became a constant speculation of philosophers and writers as well as a logical explanation for similarities observed between animals. In their *ad hoc* amalgamation of different subsystems from different animals, they had the great virtue of explanatory power—on a symbolic if not a factual level. Visually they showed the variety in unity common to all animals, and they also offered an explanation of how nature combines different subsystems. Today we would read these combinations merely as symbols for the actual functioning of genetic and other subsystems, though with the progress in transplant surgery we are beginning to get actual examples of the *Homo monstrosus*. The question is whether these chimeras are really evolutionary possibilities for the future. When one combines two previously separated natural subsystems,



(44) Fortunio Liceti, *Homo monstrosus*, 1665. The chimera, half man-half beast, was an old idea of evolution as well as a recurrent speculation by man, continuing into the present with science fiction and transplant surgery

(45) Charles Jencks, *Madonna of the Future*, 1968; made up from one Bellings heater, one headless mannequin, thirty feet of cord, one oval flange and the book of Henry James

one generally has to pay a great price on some level—whether it is drugs in the case of surgery, or sterility in the case of hybrids like the mule. If one were to attempt chimeras through genetic engineering, as is often predicted, then because of the law of balance most would be stillborn or abortions. If the concept of the multivise is really operative, then only certain routes are open to the future and not others. We cannot say a priori exactly what these routes or restricted potentialities are, but we can reasonably guess that they would not lead to either the bug-eyed monster or the *Homo monstrosus*. Rather they would contain familiar subsystems like the homologous structures and show a continuous variation, as D'Arcy Thompson's principle of continuity postulates. However, if the *Homo monstrosus* is a natural impossibility, it still does point up the very real mechanical possibility of combining consumer subsystems for particular use or visual juxtaposition (45). In mechanical evolution, the law of balance or the interrelationship between subsystems is much less critical than in nature (46). Witness the transplantation of the carburetor from auto to outboard engine to helicopter without abortion or tissue rejection.



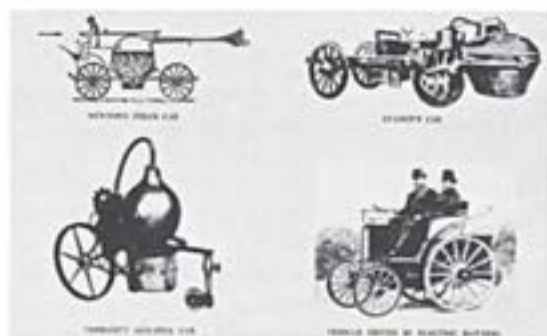


(46) Rolf Stresser, *Messerschmidt* with skis, propeller and Volkswagen engine, 1969

Perhaps one difficulty in animal hybrids is the (mechanically speaking) trivial fact that higher organisms have to match in order to mate and have offspring, whereas almost any machines can be added together to produce a third, as long as there is the necessary sex link, the human brain. Think of "electro-magnetism" or "space-time" or "bio-chemistry" on the level of knowledge, or the "rail-road" or "air-plane" on the level of objects: all these are typical *ad hoc* inventions which have kept a verbal memory of their marriage which most things have lost. If one thinks of any evolutionary series as being made up of a large but limited set of such combinations, then he may come closer to predicting what future combinations or inventions will be made.

### Critical evolution and dissectibility

Consider the past and possible future evolution of the automobile. As previously mentioned, the start of an evolutionary series consists in *ad hoc* amalgamations of previous subsystems (47). As with many such inventions, there are amusing visual and verbal hangovers from the initial inception. Thus even today we ask how much "horsepower" the engine has, just as with an airplane, that symbol of Futurist excellence, we talk about such things as the "cockpit" and "runway"—as if we were riding in some anachronistic contraption designed to exercise the legs of a rooster. At any



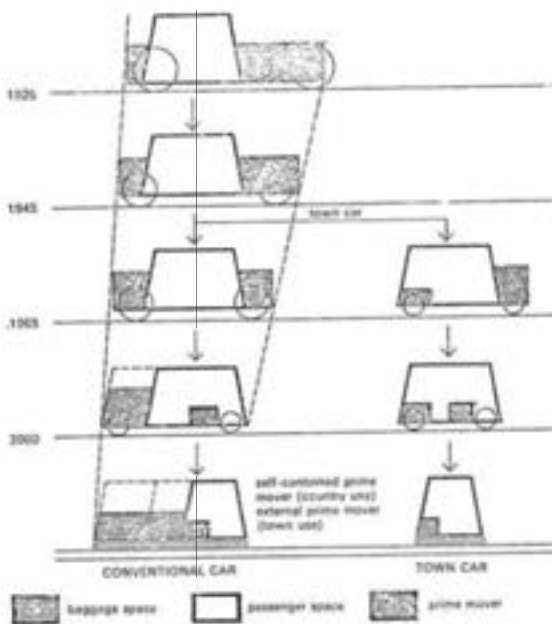
(47) First *ad hoc* automobiles show, except for Verbiest's, four basic subsystems: prime mover, passenger space, luggage space and wheels

rate, the car or "horseless carriage" did not stabilize into an integrated entity until about 1910. From then until the present, the four main subsystems—the wheels, engine, passenger space and luggage space—underwent the usual process of becoming more highly interrelated, perfected and, in the first two cases, miniaturized (48).

What developments are possible in the future? First, the car will have certain irreducible elements, such as passenger and luggage space (49); second, it will have an internal or external power system which will tend to become smaller and smaller; third, it will have some relation to the route, such as wheels to a road or air pressure to a surface. So much can be said for the internal factors of selection.



(48) The "horseless carriage" becomes the "car." From about 1890 to 1910 the horseless carriage was still seen in terms of past subsystems. Yet these were stabilized as the chassis was lowered, the passenger space covered and the whole streamlined

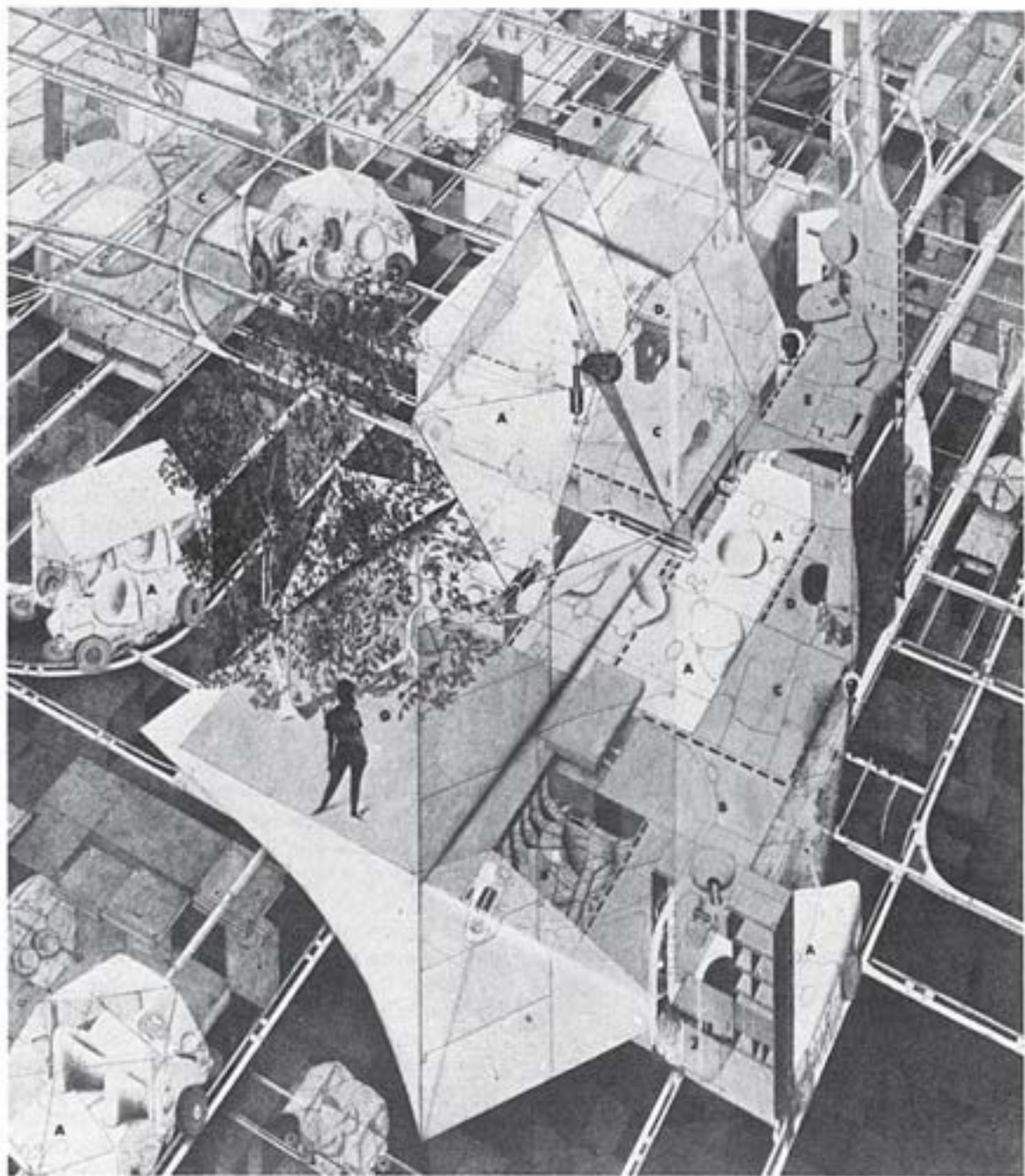


(49) Gabriel Bouladon *Future car evolution*, 1967. The wheel disappears and is replaced by air pressure, while the prime mover is incorporated into the road. (Only the two main species are shown here.)

External factors are likely to be such things as a dwindling gas supply, and our dislike of noise, smell, fumes, accidents and congestion, coupled with the fact that we are only willing to spend a small amount of time and energy (money) on a new solution. Given these factors and such existing power sources as electricity and fuel cells, we can foresee two new combinations: the mini-battery car specialized for town use, and the capsule-house car—which would be today's camper evolved to the point where it can also be a habitable room which is socially acceptable in the house (50). What can be said with some certainty is that any replacement to today's car will include some of its amenities as well as other new ones. An amenity once gained is hardly ever discarded; it is reincorporated like a positive gene complex. This, together with the great investment already made, means that in the future we will almost certainly have a successor to the car which resembles it in certain respects. No one doubts it. Nevertheless, in spite of many such examples of plausible prediction, people continue to talk as if the future were completely unknowable or unlimited. The car shows it is not. Since certain consequences follow necessarily from the combination of things already known, it should be possible in a very crude way to project forward evolutionary trends and then decide to annihilate those ugly species (such as the internal combustion engine) before they select us out.

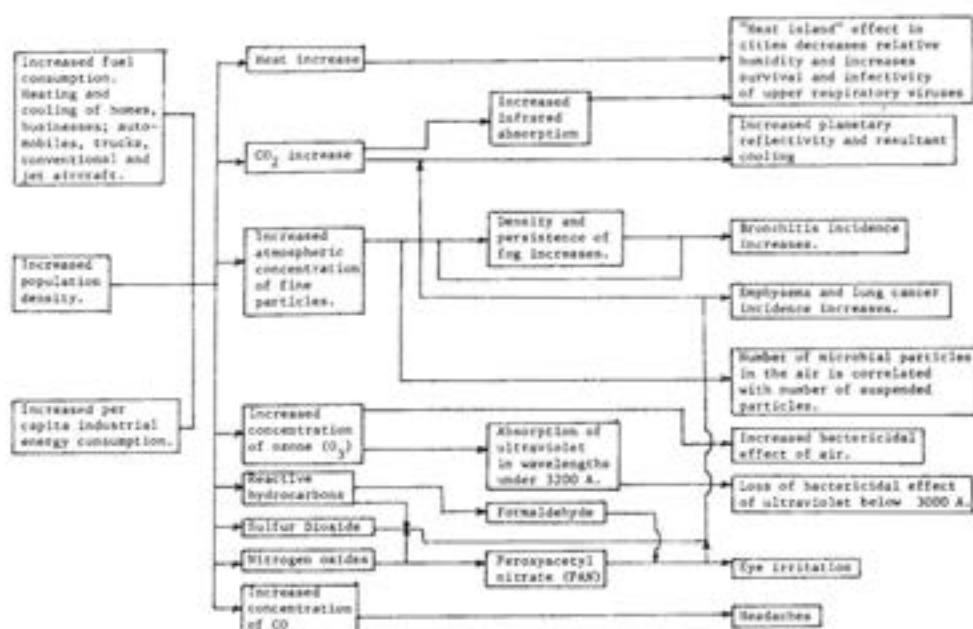
This general process of projecting forward possible futures is sometimes known as the discipline of "futuribles." As a methodology it tries to make reasonable guesses about the way certain trends might develop, and then it accentuates the possibility of human choice from among these. Thus it seeks to defatalize the course of events by systematically breaking them into controllable parts. This dissociation is a general goal of science ("divide and conquer") as well as a general trend of technology (specialization, fragmentation). Man's mastery over nature results from his cutting an unmanageable whole into manageable subsets. An example of this on a social level is the increasing divisibility of human relations. Whereas one had in the past to accept the totality of marriage, reproduction, friendship, sex, love and material fortune, now, because of increasing social com-





(50) Michael Webb (of Archigram). *Electric mobile home*, 1966, made from carlike elements which metamorphize into parts of the house: (a) mobile unit, (b) fixed floor space, (c) bed unit, (d) dressing area, (e) bathroom, (g) garden, (j) study, (k) kitchen





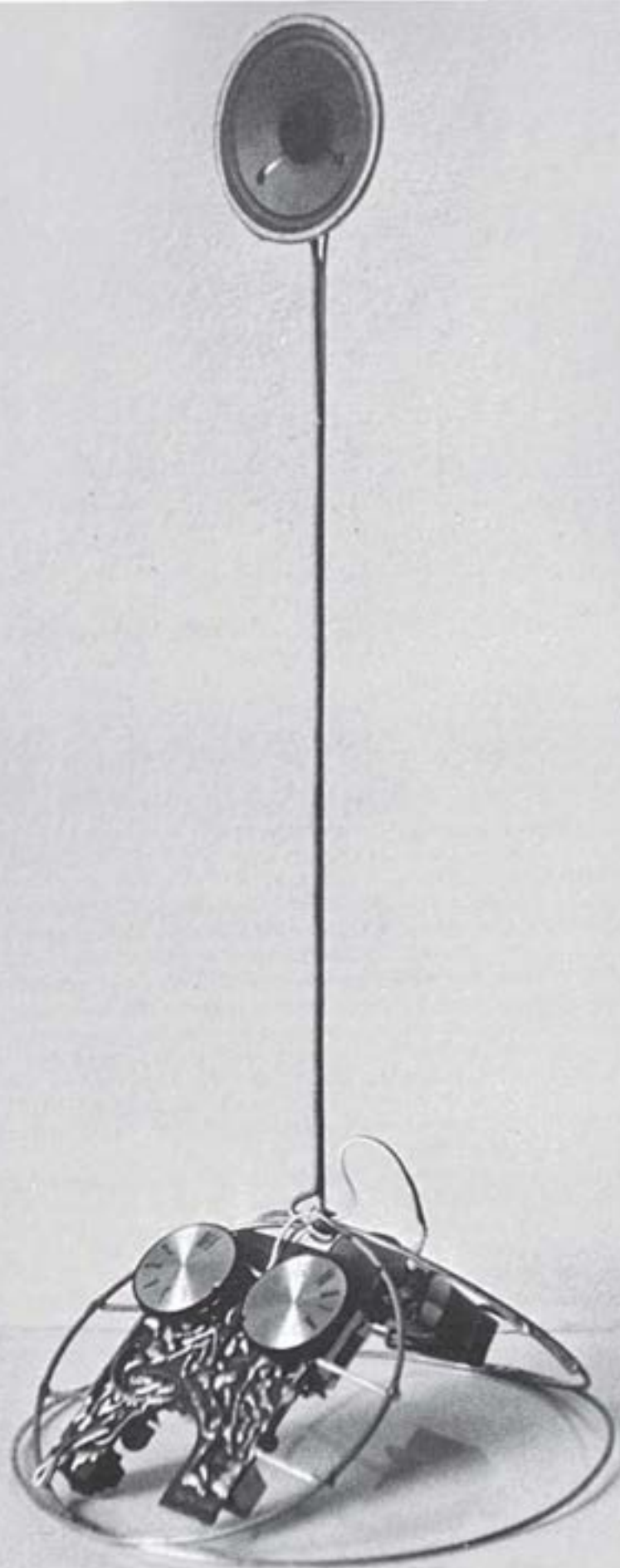
(51) Flow chart of positive and negative consequences following increased energy consumption. Here the various problems of air pollution are dissected apart. (Prepared by the Environmental Systems Group, Institute of Ecology, University of California at Davis)

plexity and technological advances (such as birth control), one can have any part of the totality without the rest. Deterministic totalities are more and more becoming manageable subsystems which can be dissected apart and recombined *ad hoc* at will. But as with other examples of dissectibility, such as transplant surgery, we often have to pay a certain price for our increased control: a tissue rejection in the case of transplants, an extreme self-consciousness in the case of fragmented social engineering.

Man's progress has always been thrown into question by the general fact that each new positive invention is accompanied by unforeseen negative consequences. The automobile brought with it an increasing control over space, time and the pleasure of movement, but it also brought those unpredicted evils that everyone is now only too well aware of. As Marx said, "men make their own history, but they do not make it just as they please." There will always be unintended consequences to any action, no matter how much men try to plan and predict. No society has ever been totally

self-determining, and most social organizations have sprung up partially by chance. To overrate the purposeful nature of all men's byproducts is to overrate men's evil and their desire to conspire. They blunder into wars as well as plan them, create ecological imbalances by accident as well as by intent. The ambivalent outcome of events seems to be built into the human condition as a fixity. This dual aspect of innovation and social change has naturally divided men into progressivist optimists and critical pessimists—both positions of equal (if partial) validity and equal entrenchment.

But if men are to move beyond this polarization, they will have to accept the more appropriate Manicheanism of the past. On an intellectual level they will have to chart the multiple consequences of any intentional action (51). On a philosophical level, they will have to accept the tragic dualism that throws both positive and negative outcomes into question. In contrast to both mechanical and natural evolution, critical evolution challenges the determinism of holistic forces with the presence of men's aspirations.



## 4 Consumer Democracy

The prophets of the first machine age placed great emphasis on standardization, anonymity and the repetition of "perfect" forms. Ironically today it is the large corporations who continue to believe in the virtues of standardization; they have to repeat a form often enough to pay off the initial investments in retooling for production; they manage specific demand through advertisement, and offer the consumer a limited range of impersonal, stereotyped products.

In opposition to this, new techniques and a new strategy have emerged. The electronic techniques of communication now allow decentralized design and consumption based on individual desire. "You sit there and need—we do the rest. Green Stamps given!" The Resource-Full Computer.

The new strategy is latent within the do-it-yourself industry, Hippie consumer tactics and the space program: the re-use of old parts, the recycling of waste.

With an electrified consumer democracy, the time spent and the cost of consumption would plummet, and the impersonal subsystems of large corporations would be repersonalized by combining them *ad hoc* towards specific ends.

(52) *Maggie's ad hoc radio*: power source, tuning knobs, loudspeaker and transistors—the four major subsets are clearly distinguished and dramatized



## Individualized production

In today's second machine age of cybernetic production, the general trend is toward a more responsive, individualized, differentiated environment. This formulation is contrary to the prevailing ideology of the first machine age, in which the polemicists of mass production gave four different arguments in favor of standardization. They argued that a standard form repeated often enough was more economical; that the machine produced impersonal, precise standards as a matter of necessity; that these prototypes were pure answers to rational and sensible goals; and that accepting these prototypes in everyday life would be conducive to mental health, maturity and even moral rectitude. The number and variety of people who accepted these arguments were overwhelming. From Henry Ford to Walter Gropius to Lewis Mumford to Herbert Read to Le Corbusier, the arguments rebounded back and forth, picking up credibility as they reinforced one another. The most lyrical formulation of their interlocking good sense was by Le Corbusier in his *Towards a New Architecture*:

Standardization is imposed by the *law of selection* and is an economic and social necessity. . . . We must aim at the fixing of *standards* in order to face the problem of *perfection*. . . . Standards are a matter of *logic, analysis* and minute study; they are based on a problem which has been well "stated". . . . The problem of the house has not yet been stated. Nevertheless there do exist standards for the dwelling house. *Machinery* contains in itself the factor of *economy* which makes for selection. The house is a machine for living in. . . . The engineer, inspired by the law of economy and governed by mathematical calculation, puts us in accord with *universal law*. He achieves *harmony*. . . . Working by calculation, engineers employ *geometrical forms*, . . . the *most beautiful forms*. . . . If we eliminate from our hearts and minds all dead concepts in regard to the house, and look at the question from a *critical and objective* point of view, we shall arrive at the "House Machine,"

the mass-production house, *healthy* (and *morally so too*) and beautiful in the same way (as our) working tools. . . .<sup>1</sup>

In short, this argument appears to link inextricably the following points: the *law of selection* leads to *standards* which are *perfect* and the result of *logic and analysis*, as is *machinery* which is governed by *economy*; this leads to the *engineer's harmony of geometry* which is the *most beautiful and morally healthy* of all forms. By the '40s this argument was accepted around the world as partial justification for the International Style, and it remains a kind of orthodox explanation for "modern" architecture even today. Yet by the early '50s, the premises in this train of reasoning had been seriously damaged or even refuted one by one.

First of all, psychologists and sociologists concluded that endlessly repeated forms are not stimulating or provocative. Instead of prodding individuals into actively working with them, standardized forms discourage any such participation and alienate some from the man-made environment. This is rather significant, since in pre-industrial times whatever man built had either a discernible purpose or an individual imprint to provoke involvement. But after the Industrial Revolution, man-made artifacts were turned into another aspect of a distanced and potentially alien nature: they accumulated in great profusion, were thrown away as "waste," and lost their unique quality. The result was a reinforcing syndrome in which mass production precluded man's sensual response to form, which in turn encouraged the further exploitation of expendable products. This alienation was positive inasmuch as it resulted in a detached, anthropological view of man, a self-reflection, as well as greater productivity. But insofar as the "mental health and moral rectitude" of the individual were concerned, the tendency towards standardization was retrograde.

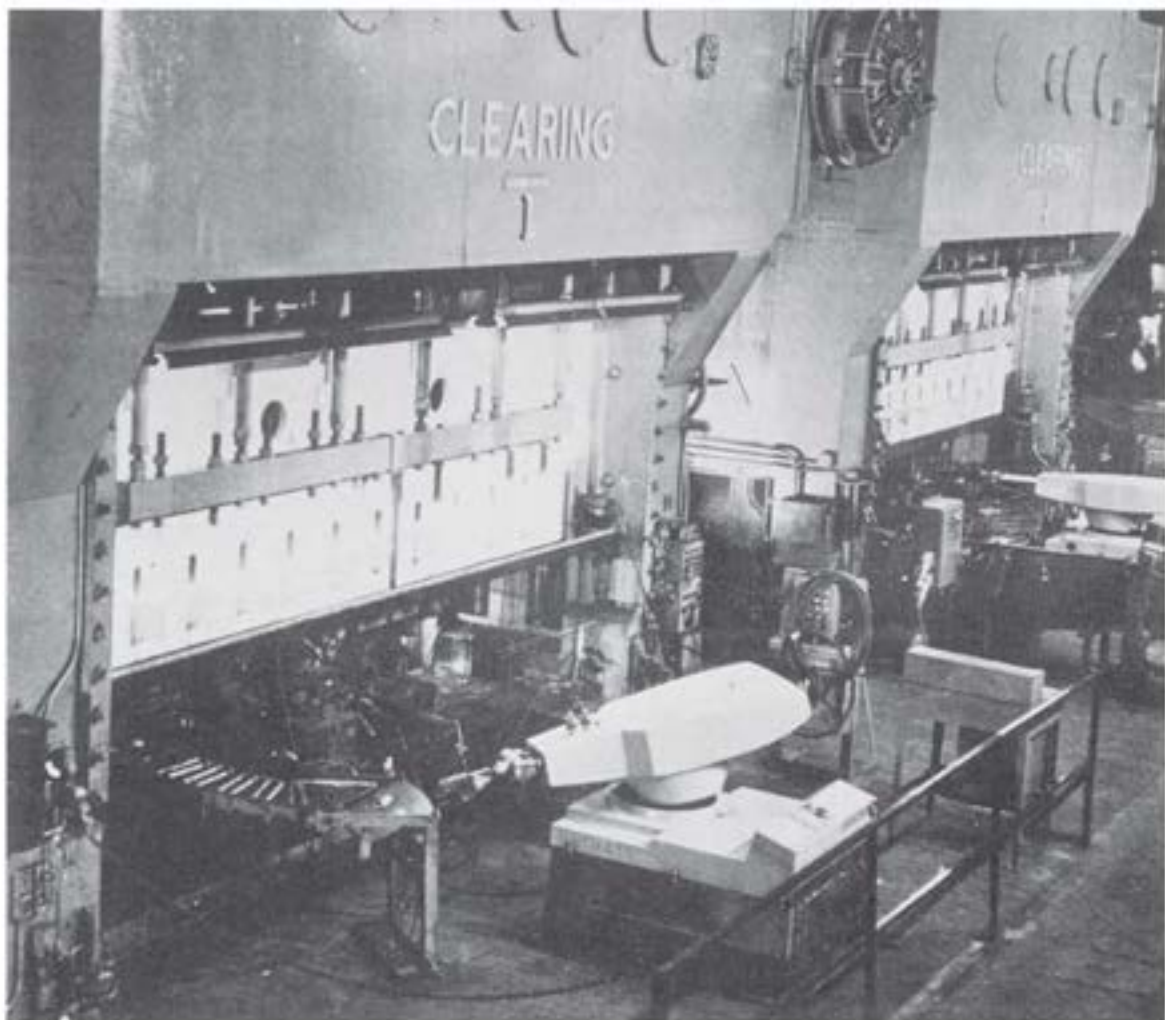
Second, and contrary to the polemicists, it became apparent that mass production did not result only in rational invention, but was just as likely to result in irrational whim as the

1 Le Corbusier, *Towards a New Architecture*, p. 138, p. 122, p. 100, p. 16, p. 26, p. 31, p. 210; my italics. London, 1927.

products of handwork. The tail fins and sexual protuberances of automobiles, and even fire-arms, did a lot to make this whimsy clear, as did many of the irrational goals of industrial society, such as overproduction and conspicuous consumption. The last arguments given for standardization, the economic and technological ones, were eroded if not altogether refuted by the advent of automated production. Instead of having a single mould that endlessly reproduced a single form, one had a series of organic, finger-like manipulators that push-pulled and clipped on subsystems variably. Instead of having an invariant action pattern that

was released at the press of a button, one had a flexible computer program that could vary the production with each unit. The industrial robot (53) was a typical tool of this automated production process. Equipped with a rudimentary memory, the robot could be led through its paces by a skilled hand and could then repeat this pattern, or another one, on the production line. Gone was the necessity for a laborer reduced to the monotonous role of feeding and changing a machine. Present was the possibility of varying each object from every other one. If the cybernetic production line were provided with a varying program, every

(53) Industrial robot *Unimate* clearing presses at the Ford Motor Company plant. The armlike robot takes over dangerous and monotonous human chores





(54) Technical products by General Electric; high performance is connected here with the visual metaphors of cleanliness, precision, affluence and convention

object produced could be different at little more cost than in standard mass production.

### Standardized consumption

Yet even with these more flexible and "organic" tools, production has remained relatively homogeneous and standardized. In part this must be traced to the ideological hangover from the first machine age, but it is also caused by a

prevalent social desire for conformity and the producer's desire to liquidate large investments. The last point is made by John Kenneth Galbraith in his book *The New Industrial State*. As Galbraith argues, any advanced industrial state, regardless of its ideology, has to be based on a mass market simply to amortize its large investment in new technological tools and specialist knowledge.

To use one of Galbraith's examples, the Ford Motor Company took three and one-half years of production time to launch the Mustang. Over that period it spent nine million dollars on engineering and "styling," and fifty million just on tooling up for special production. The



tools alone were so specialized that Ford had to call into play the "organized knowledge" of many experts to solve such subset problems as the fabrication of the chassis or brakes. Who designed the Mustang? Not the Board of Directors, nor the Director of Styling, nor the consumers through their representative, the market researcher, but rather the vast "technostructure"—a term Galbraith coins to designate the anonymous sets of experts that are called into play when any advanced technical object is mass-produced. With so much money and time at stake, the object—or Mustang—obviously has to be a success. The livelihood of many would be constantly threatened otherwise, and no one would dare lay out the capital investment. In order to guarantee the success of these projects, corporations and even whole totalitarian countries like Russia use such means as advertisement to coerce the consumer into buying their limited range of standard products; and, except in the rare case of an Edsel, they are successful. At least this is the case with the five hundred largest corporations in the United States, which produce almost half of all the country's goods and services.

Looking at these goods and services on a very general level, we can say that they institutionalize the middle-class dream (54). That is, they appeal to keeping up with the Joneses and are not in any way non-conformist. They are clean, shiny, striking and slightly classical in visual impact. Collected all together in a home, they overwhelm the individuality or personal "character" that was common to most homes in the preindustrial era. Like a Victorian drawing room stuffed with heterogeneous furniture, trophies and mementoes, the house of the modern consumer is a museum of collected bric-à-brac which represents his acquisitions. Yet the modern home is unlike a Victorian home in one important way. Instead of reflecting the individual's own personality, its objects have already been given a mass-produced *image* of individuality at the factory. Hence the ultimate absurdity of the public and impersonal world taking over the private and domestic world by mass-producing personalized imagery.

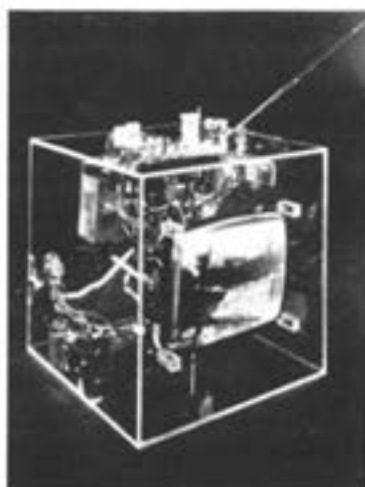
Another contradiction inherent in the products of advanced industrial states is the extreme dissociation between internal function and external image, unlike, say, the resolution found in ver-

nacular architecture where, for instance, the outside of a mud-brick house clearly reflects the internal spaces. Again, this dissociation can result from the structure of the corporation. At the Ford Motor Company there are presently a Director of Styling and a Director of Corporate Identity, who are at the head of the office in charge of fixing all aspects of Ford's Public Image—from architecture to ashtrays to the stationery letterheads. It is perfectly clear what this Public Image will be, and given a slight familiarity with current stylistic trends, it is also possible to guess what the future, inevitably classical, Ford will look like. This in spite of whatever functional or technical changes there might be in the car itself. Thus, contrary to the morality of most designers and contrary to the tenets of pluralism, form follows market research and function follows previous function (and more market research). There is an unalterable and widening gap between exterior and interior (55), symbol and content, form and function (56)—a gap which



(55) *Regent's Park clip-on Regency façade.* A subsystem saved from the past clothes a new life and provides a different relationship among modern functions

is making the environment more and more inarticulate, impossible to understand and difficult to manipulate. With today's advanced technical products, only a team of specialists working on a product together can truly crystallize the overwhelming complexity into one resolved unity, and, as we have seen, most corporations have a built-in dissociation between style and function. In any case, the individual designer or consumer is just not equipped with the technical knowledge necessary to produce designs in which the complex workings are made clear and comprehensible.



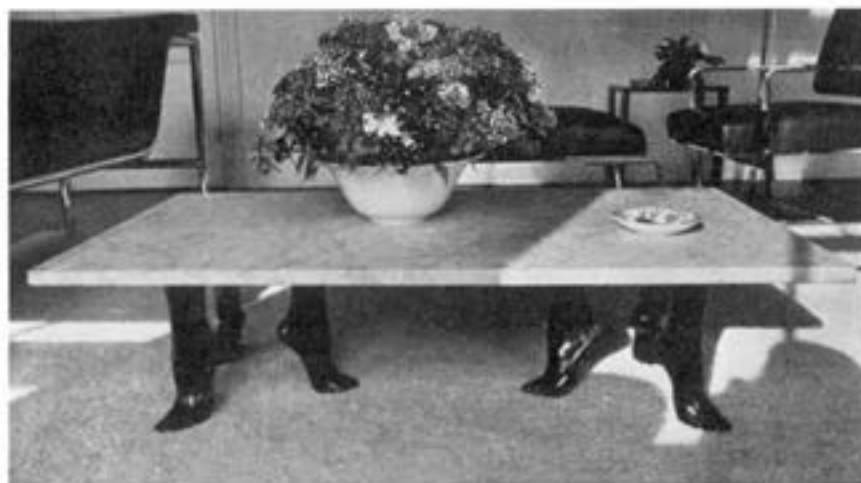
(56) *See-through Sony TV*, by Major and Carby, 1969. Designed of Perspex and the *ad hoc* amalgamation of components, this object is literally honest since the internal function is readable on the outside. However, such functions are becoming too complex for anyone but the specialist to understand, and hence exteriors are becoming symbolic of other things

(57) *Dog-fireplace*: a double shift of mental attitude. The producer mass-produces a personalized image which is then reshifted as highbrow kitsch

(58) Charles Jencks, *Marble slab held by table "legs"*: these ready-made parts revive the original and latent meaning of the support

Nevertheless there are ways in which the individual can use today's complex standardized products without losing either the right to shape his personal environment or convey openly the technical complexity of modern products. One of the most rudimentary methods is simply to change the attitude with which these objects were produced, and to regard them as products of nature, not culture (57). In this way, the inevitable alienation from mass-produced form is turned to good account as it creates the psychic distance necessary to allow us to manipulate man-made objects as if they were neutral or value-free.

Yet there are many psychological constraints against translating culture into nature and back.





(59) Information is typically in the hands of producers and purveyors. Advertising, layout, lack of classification and proper description all work against the consumer and overture his defenses, urging him to buy what he doesn't really want

People feel it is somehow inhuman and morally repugnant to make functional objects out of anthropomorphic parts (45, 58), although obviously the parts are already dehumanized by the process, so that to use them explicitly in a mechanical context is to comment on this process and bring it to the level of consciousness.

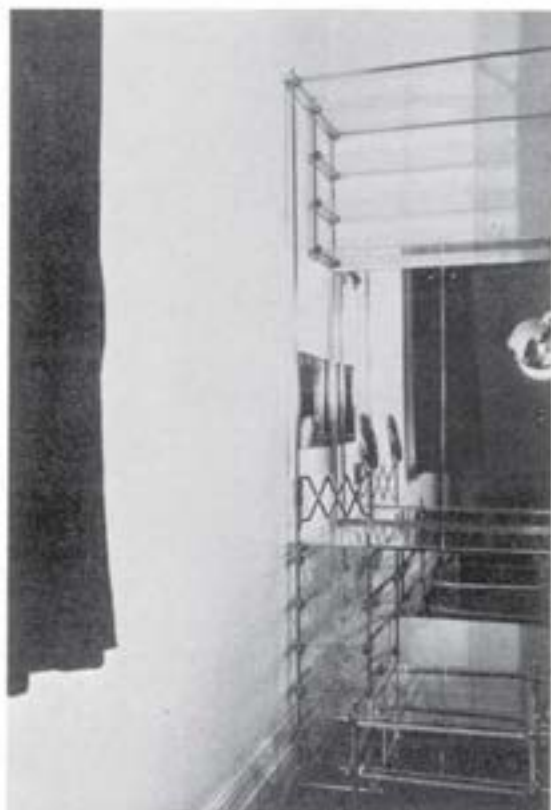
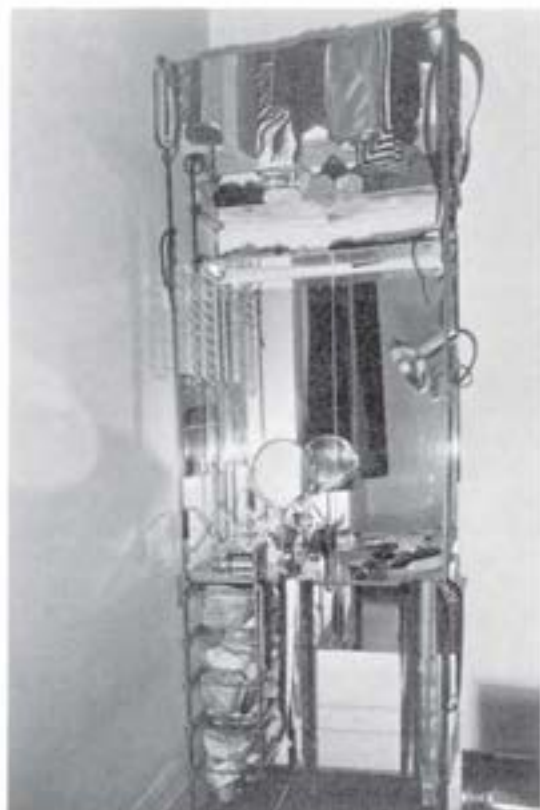
However, the real difficulty of combining systems from different sources is not psychological but technical. The producers and purveyors of

mass culture sell and locate their products in a way that makes *ad hoc* consuming difficult if not impossible. One always follows the demands and desires of the producer whether consulting a catalogue, reading a paper (59) or shopping in a department store.<sup>2</sup> Products and information are displayed in such a way as to undermine the consumer's will and deaden his imagination. It is really a question of how to consume in an overproductive world without dying of consumption, because manufacturers produce a kind of informational DDT and communication fog—the jumble of advertisement and the lack of clear, comparative product description. As opposed to this the content and function of a product should be easily accessible during the consumer's search, and described in a way which facilitates comparison. At present, either he cannot find the product he wants because it is impossible to locate in a field of other objects, or he does not want the product he gets because its contents have not been relevantly described. The irony of this is that sometimes even the producer suffers because a potential buyer cannot find the product he sells.

One personal example of this debilitating process of consumption will suffice, because it is typical of *ad hoc* design or "consumer assemblage" in general. The desired finished item was a dressing table-drawer system which allowed all clothes and jewelry to be clearly seen (60) as continual reminders of their own existence. Thus from the start I had a general idea of how it was to appear and work and even where I could obtain the parts—such as chrome tube and the threeway joints (62). Still, and this is typical, by the end of the process, there were unexpected discoveries such as a flexing mirror and chrome light which I could not have designed or probably even imagined at the start. Nevertheless I knew that most of the parts must already exist, so that after a few hours of phone calls and travel, I was able to collect everything except the Perspex drawers. Thus practically a whole dressing system had been collected in one day that fit the requirements, was mass-produced, and cost one-tenth the time and energy of a similar one custom-built. It also had the advantage of being unique and easily modified. I could shift it and mould it at

<sup>2</sup> See Nathan Silver's discussion of the Hardware Supermarket below, pp. 173 ff.





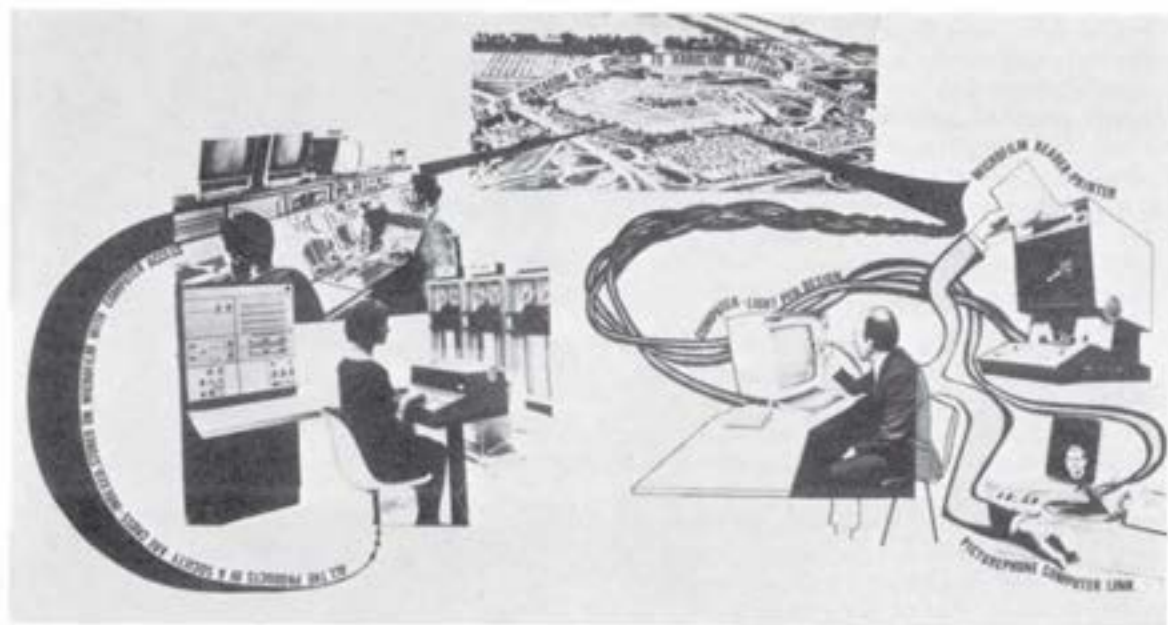
(60) *Clothed dressing table-drawer system*

(61) *Nude dressing table-drawer system* made up of ready-made parts: flexing mirror, chrome tube, Tebrax joints, clear Perspex sheets, mirrors and chrome light



(62) Close-up showing see-through effect

(63) Food cover stripped of its handle and inverted becomes a drawer



(64) *Consumer democracy.* By giving the consumer new techniques—such as a television screen plus light-pen—he could draw the kind of product desired (or describe it over the computer), and then see all possible variants with a comparative list of the different parameters

#### New techniques of consuming

This experience points out the two main problems which tend to discourage *ad hoc* design: (a) such information sources as a Sears, Roebuck catalogue do not list all the products of a society, nor (b) in a way sophisticated enough for one to see that any product can be used, relevantly, out of context. Clearly what is needed is a "resource-full computer" with every product down on microfilm so that one can search out the best part for the job—an information stockpile full of cross-referenced data, all waiting to be called into action at the flick of a light-pen or the ring of a phone. In fact, it's a job for the FBI or CIA (64). Only these kinds of Intelligence Agencies or Bureaus of Investigation are capable of handling the astronomical amount of information with the skill and expertise that it demands. With so many years of expert training in bureaucratic red tape and transmitting endless messages—they could easily switch over to the new job of supplying important information free. Imagine a TV screen hooked up to the Federal Bureau of Investigation, which was continuously restocked with all the world's resources. The architect or consumer could sit daydreaming about a project, scratch away on the screen with a light-pen, and call up product after product until all the alternatives had been exhausted and the surplus resources tried.

will. The only problem was that there were no Perspex drawers, unless I was prepared to wait a few months while a special order was made (at great expense). Yet it was clear that with the superabundance of things plastic, such a Perspex object must already exist: the question was how to find it. I called plastic companies, tray companies and radio companies (for hi-fi covers); I went to London's Design Center and the Building Center, leafed through countless Yellow Pages and catalogues, all the time becoming more and more annoyed as I found more and more informational fog and less and less what I needed. Finally, and quite by accident, as I was passing a kitchen supply house, I happened to notice some plastic food covers. On inquiry I found that there was indeed one the size needed, and that all I had to do was call the factory, order five without handles and invert them as drawers (63). Thus the whole process from conception to finish took less than two weeks, and also much less money than a specially made equivalent.

"I want thirty cubic feet of environmental control, a small piece of acoustic privacy and give me an electric-gas-telecommunication tree please (65), forty feet of space frame, a few wall robots and enough pneumatic shelter to stretch around the outside (66). . . . And I need a new swivel stand because the old legs on my imitation antique were shattered (67)."

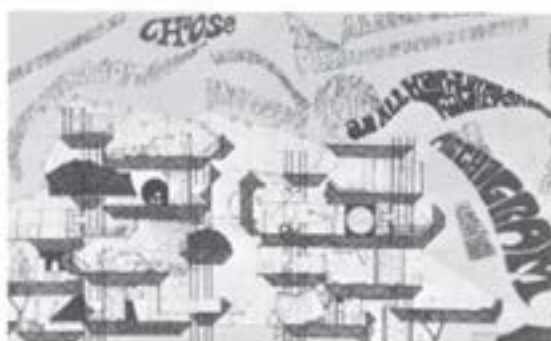
Thus consumption could keep pace with and take advantage of production. If, as some say, affluent societies throw away enough resources to make all their poor into middle class, then one reason has to be that there is simply a lack of information on exactly what is where at what time. A prime way of challenging this wasteful production system is on a technological level, by supplying the consumer with informational power equal to that of the producer.

One means of doing this is to set up information centers. The parameters of an object or subsystem would be indexed on microfilm so that the individual could specify his needs prior to looking for an object. Because of the sensitive feedback between demand and supply, desire and fulfillment, this would lead on a consumer's level towards the condition of "participatory democracy," where one shapes both products and environment. It would short-circuit all those groups standing between the individual and his product, all the middlemen and salesmen whose sole job it is to pass and fabricate information. Now the middleman would be preshrunk at the factory in the form of an instruction sheet, which would arrive through the mail along with the product as a non-arguing, indefatigable aid to design and use.

Design itself would be decentralized and would counteract all those *de facto* forms of repression and conformity which are built naturally into an advanced industrial system. By the means just described, a megalopolis such as the Boston-Washington axis would grow and change with the sensitivity of a preindustrial city because people would be given the power, or at least a share, in designing it. Many designers today, such as Christopher Alexander, wish to recapture the natural growth of cities by giving architects a methodology to handle the countless factors that are satisfied piecemeal in "organic cities" and overlooked or denied in



(65) *Do-It-Yourself* home wiring kit



(66) Archigram, *Control and Choice*



(67) *Harrods' chair*

modern ones.<sup>3</sup> But even such a sophisticated methodology would not answer the underlying problem, because ultimately the only way to satisfy all the conflicting values in a city is to

3 Christopher Alexander, "A City is not a Tree," *Design Magazine*, February 1966. He argues here that only by relating all the countless parameters of a city can the architect hope to achieve the rich, organic complexity of past cities which grew slowly. My point is that the architect cannot do this satisfactorily any more than a congress can adequately represent all the interests of all the people.



give the people a share in its design. Having architects represent the people's design interest has the same drawback that representative government has: it can never be a complete representation and it actively discourages people from shaping their own locale and taking care of it. Conversely, the best way for form to become assimilated and provocative is to make it the result of every individual's freely unfolding imagination. To ask architects or designers to take responsibility for other people's lives in fullest physical detail is like asking linguists to specify everyone's utterance in advance. An absurdity. Instead of a city with ten thousand architects, we need a city of ten million architects; and the means to develop this already exists. The Viennese painter Hundertwasser expressed a similar idea in a witty attack on modern architecture—his "Mould manifesto against rationalism in architecture." Mould and microbes were to break down all the sterile repetitiveness of straight lines and right angles. But, more seriously, Hundertwasser formulated the question of the self-built environment in an extreme and explicit form.

Everyone should be able to build, and so long as this freedom to build does not exist, the planned architecture of today cannot be considered an art at all. Architecture with us is subject to the same censorship as painting in the Soviet Union. . . . Only when architect, bricklayer and occupant are a unity, i.e. one and the same person, can one speak of architecture. Everything else is not architecture but the physical incarnation of a criminal act.<sup>4</sup>

An overstatement perhaps. Yet if one thinks about reversing the comparison between architecture and painting, he sees how frighteningly relevant it is. Imagine a painting composed by a team of specialists—the canvas-stretching engineer, etc.—and subject to building codes and aesthetic regulations. Six months to transfer the paint from brush to canvas and no changes thereafter!

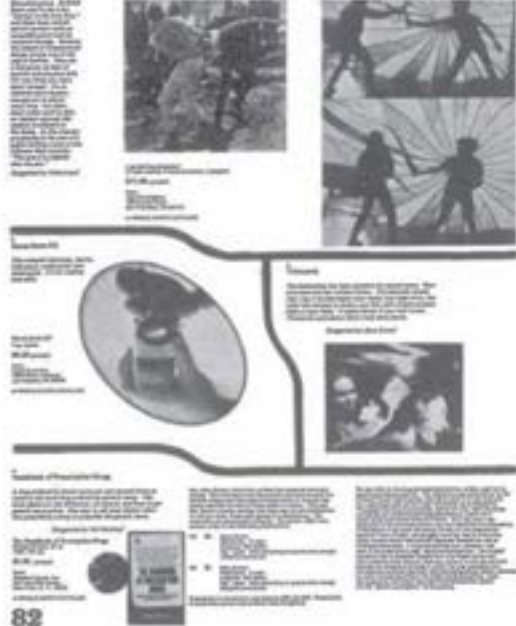
### New strategies of consuming

Since standardized consumption results partly from the technical means of the advanced industrial state, it has to be met by some of the new, counteracting means of technology mentioned above. But even the industrial robot and the "resourceful computer" will not in themselves decrease uniformity (or increase creativity). Any meeting of two or more people is bound to produce an embarrassment of stereotypes. No society can function a minute without cliché. Cliché, or a standardized subsystem, is the necessary element for creation since all inventions consist of the reassociation of previous material. The question then becomes: How does one encourage dissociation and recombination? What strategies will prompt people to break up their environment and reconstitute the pieces? Put another way—How does one encourage people to see five new uses of the bicycle seat when they see its habitual meaning confirmed every day?

There are of course the traditional methods that artists use to train visual creative capacity: looking for images in clouds or cracks in the wall, squinting, or looking upside-down or through frosted glass to dislocate objects from their habitual contexts. But in general, there are no universal ways to break down or overcome the familiar pigeonholes of thought beyond the well-known ones of dreaming, the "lateral thinking" proposed by Edward de Bono, or regressing to a more primitive level of the psyche where opposite frameworks can find a common link. If general spurs to creativity do exist, they are such omnipresent motives as playfulness and dissatisfaction. Only these are strong enough to overcome the status quo of customary association.

An obvious case in point is the Hippie and Yippie! consumer strategy. Forced on by the twin passions of contempt for a consumer society and love for "doing your own thing," they have discovered numerous ways of living "free" off the unnoticed subsystems of society. A free house can be constructed from the bodies of used cars; free food can be collected at the closing hours of meat, fish and vegetable shops; free furniture can be picked up off the streets the night before the sanitation department makes its bulk pickups. And Abbie Hoffman has

4 The manifesto was written in 1958 and can be found in *Programs and Manifestoes on 20th Century Architecture*, edited by Ulrich Conrads, pp. 157-60. Cambridge, Massachusetts, 1970.



(68) Hippie clothing strategy. Very strong and colorful clothing conventions already exist in the pluralist society. Thus one can make a combination costume from the uniforms of policemen, firemen, waiters, doctors, clergymen and other subcultures, such as the army

(69) Page from the *Whole Earth Catalog*. Personal advocacy of objects instead of the usual advertising has the advantage of giving a feel for the product and an idea of its intelligent use

(70) Hansin Jukka Café, Hameenlinna, Finland

shown (and argued in his *Revolution for the Hell of It*) that free media time can be obtained by creating news; by telling the press that free love will be made in front of the Pentagon after squirting couples with "Lace" (a free aphrodisiac which is actually just purple spray); or, as in his more successful venture into unpaid media time—the 1968 Democratic Convention in Chicago—by creating a series of amusing events to keep the press away from the boring convention hall and out on the street where the free entertainment is happening. In Chicago, Hoffman organized a "Festival of Life" to include as its chief actors Mayor Daley, his repressive police force and supposedly thousands of Yippies. Next, he nominated a pig, Pigasus, for Yippie! President. When the police riot charged the Festival of Life and crushed a few innocent bystanders, stunning others, the Yippies chanted, "the whole world is watching us" to the media—which it was (free). To get maximum mileage out of the whole mess, there was finally a show trial in which the lumbering forces of repression were shown so malevolent next to the antics of liberation that it was now possible for countless books to be written, at least three movies made, one musical, a few plays—in short all the media could turn out Hoffman's message, free.

This "counter-culture" revelation of slack or redundancy in our present society proves that one can live off the waste of an affluent majority. There is no telling exactly what use society makes of the energy sources it consumes, but Buckminster Fuller and others put it at less than 25 per cent; this means that theoretically three more societies could live within the present one without the need for more energy.<sup>5</sup> Beyond energy utilization, or living free off waste products, the "counter-culture" has contributed two more strategies of *ad hoc* consumption: one is the method of combining different conventions in clothing and environment such as army and firemen uniforms (68), and the other is the *Whole Earth Catalog* (69)—a compendium of different tools, books and consumer goods with the parameters of each object explained and defended by someone who

is disinterestedly excited about them. The advantage of this method of presentation over traditional persuasive techniques is that it can be critical and at the same time more positive about the specific benefits of each object. Through this personal advocacy and by combining standardized subsystems, the "counter-culture" has shown new methods of repersonalizing the impersonal products of an industrial society.

A method of creativity related to the Hippie strategy of re-using existing resources is that of designers who specify the various functions desired ahead of time and then build forms that serve two or more at once. In this case of the multiple-functioning object, the adhocism is built-in rather than discovered afterwards as a latent possibility. There are many examples of this plural usage in architecture, extending from Le Corbusier's balconies at Marseille which serve as tables, storage units, sun breaker, chair, playhouse, etc., to such creations for the popular science market as Lester Walker's "Turniture," an ingenious device that can be a table, bar, rocking horse or playhouse.

The general idea of the multiple-functioning object is probably more relevant if it is discovered within already existing techniques rather than specially designed (70). So many examples of this exist on a popular level that it is usually taken for granted. People have used knives as screwdrivers for years without thinking it necessary to comment—beyond the fact that this second use often destroys the knife's blade and hence its primary use. The same is true of cleaning typewriter keys with a toothbrush: one can't use it again to clean the teeth. Perhaps for this kind of utilitarian reason, products are stabilized in a single function and many people consider it slapdash, not to say immoral, to use them in a new way. Nonetheless products find unexpected jobs in ways that are completely assimilated into the matrix of social meaning. What are the possible new uses of a transistor radio?

An (anthropological) colleague recently observed a pagan ritual in central Borneo. The procedures were exactly according to the book; the proper carvings had been made, the proper spells were being recited, the

5 Admittedly pollution is not included as drawing on energy in this equation and the figures may be naïve, but they still point to great unrealized potentialities.



proper sacrifice was in train; but unexpectedly the whole procedure was accompanied by the sound of a jazz band from Radio Malaya. But the radio was not just a gratuitous addition, it had been incorporated; the magical voice of the magical machine had become an essential part of the ritual.<sup>6</sup>

If radios can be used in the dentist chair for reducing pain, then why can't they be used in central Borneo for accompanying a weekly sacrifice? Using them to disturb the neighbors or throw at a child is clearly immoral, but they do have all sorts of potential functions that their producers never foresaw.

In the case of bathroom appliances such as the toilet and urinal, such unforeseen jobs can be lucrative for everyone concerned. There is a story, perhaps apocryphal, of the German Krupp works selling urinals to Africans at the beginning of this century. The producers wondered why these hygienic luxuries were selling so well, until they discovered that men were relieving themselves the traditional way while reserving the urinal for a more sacred role of ablution—the shower. Apparently the farmers in Southern Italy often use a flushing toilet to clean grapes. The vitreous china bathroom fixture is obviously one of the most suggestive modern objects produced: certainly it is the most sculptural of mass-produced objects in the modern house.

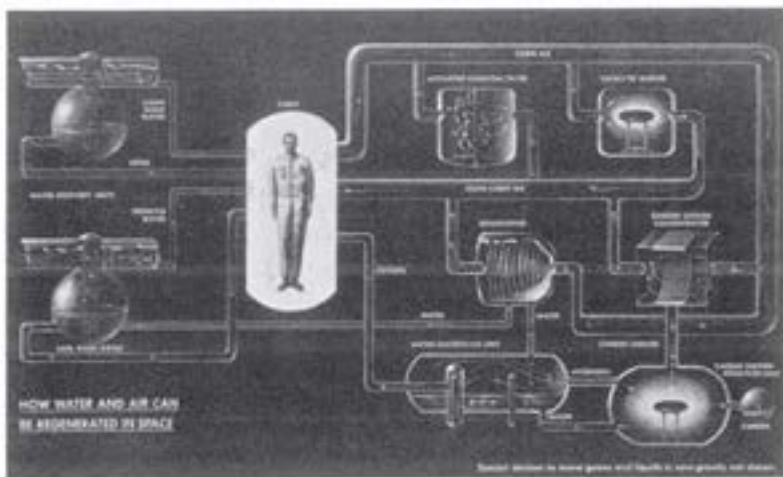
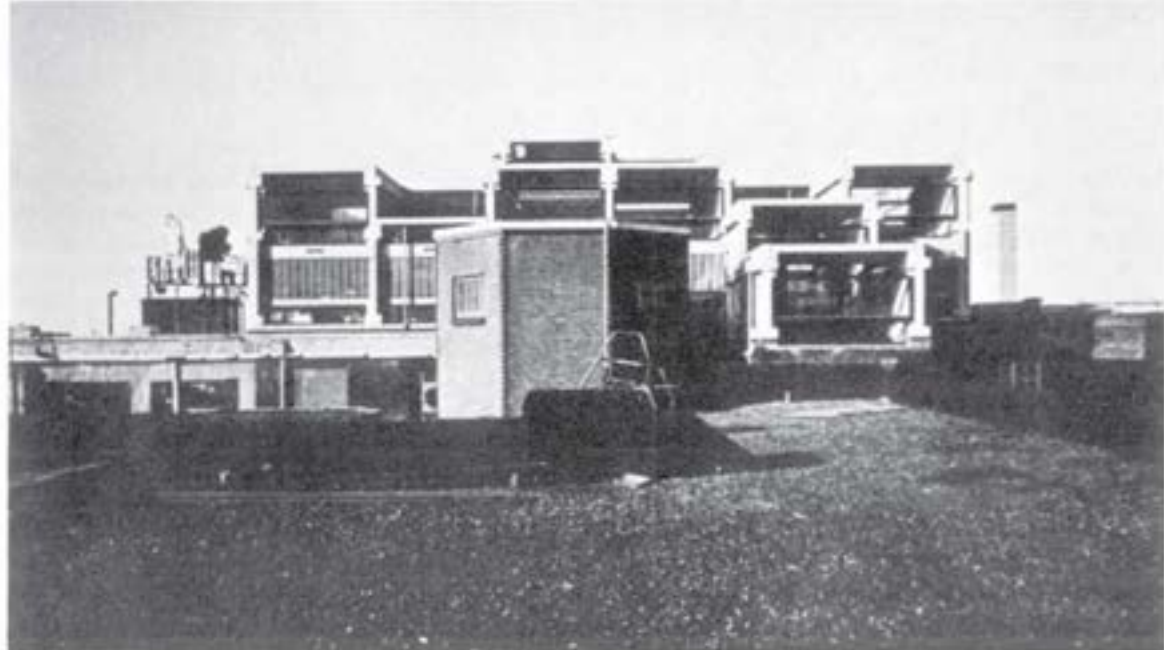
The last two examples of re-using a bathroom fixture are just as ingenious as the new functions found for similar objects by the Dadaists Man Ray and Marcel Duchamp, who used them as a door knocker and a proposition in art history, respectively. The African and Italian examples show that the concept of the "knowing consumer" can extend beyond the sophistication of the urban connoisseur to all cultures. The alien culture displaces an object from its habitual meanings by applying its unself-conscious concepts directly, whereas the urbane artist achieves a similar shift by conscious and ironic methods. In both cases the standardized and monotonous product is shifted from the repressive meanings often given it by corporations.

6 Edmund R. Leach, "Culture and Social Cohesion," *Dædalus*, Winter 1965, p. 30.

Once the importance of this shift is understood as a general principle, one can see how many chronic problems can be solved simply by a displacement of habit. For instance, if the conventional barriers between working and living in the same area could be broken, three omnipresent urban problems could be solved all at once, at little expense. By partially converting offices into residences, there would be (a) no commuter delays, (b) no dead areas of the downtown city and (c) less of a housing problem. How many million square feet of office space lie empty every night simply because the idea and practice of work have been so totally divorced from everyday living? The architectural problem of reconverting these nighttime mortuaries into acceptable habitation is minor compared to the social problem of breaking a conventionalized routine. Still, the general opportunity is there. What is needed is a new attitude to replace urban renewal and city building; a concept of urban reclamation (71), where whole areas of the city are re-used a second or third time without undergoing the cataclysmic process of reconstruction. As Jane Jacobs and others have argued, the growing city has need of twilight areas for new projects to start off. In their first stage, there is the economic necessity of using leftover space *ad hoc*. The amount of this slack space—basements, attics, corridors, roofs and simply underused areas—is staggering. An evening view of any downtown area reveals that only one-tenth of the lights are on, while the rest of the space is vacant, waiting to be reclaimed by a shift in habit and slight physical alterations.

Recycling waste parallels the idea of urban reclamation. The space program first brought into practical prominence the fact that most materials can now be converted through atomic restructuring or natural cycles.

Obviously a space venture is limited in its amount of initial supplies, so ingenious methods were worked out of recycling all waste products, including human ones (72). Basically the process consists of providing subsystems to regenerate the products of the human metabolic cycle: converting waste materials such as skin, hair, fingernail clippings and the more obvious human "outputs" into food, water and oxygen or the basic human "inputs." This conversion can presently be made rather efficiently with air and



(71) Herman Hertsberger, *Extension built on factory*, 1964. Besides the economic value, such mixed uses add vitality to the home as well as domesticity to the office

(72) The General Dynamics *Life-support system* continually recycles water, air and waste for the astronaut

water, although food development—growing it chemo-synthetically off solid and liquid wastes—is still in a primitive state. However, it is the chronic problems of population and pollution which have given an impetus to the concept of recycling more than the space program. Recycling is now a major principle of ecology inasmuch as the earth itself can be understood as a closed system with respect to the more critical materials. If the earth is a space ship with limited resources, then in addition to recycling natural materials it makes as much sense to recycle man-made subsystems. An example of each kind of regenerative process is now at work: millions of glass bottles are now being reconverted into the surface of parking lots;

obsolete shipping containers are being turned into quick prefab houses for disaster areas, the army in Vietnam and even ponies in the Netherlands. Thus the ideal situation would be for every industrial object which does not immediately deteriorate back into the natural, organic cycle to be reconstituted into a new and useful cycle.

The problem is once again how to encourage this creativity on a large enough scale for it to be significant. One area which shows the greatest potential is the do-it-yourself industry, which has been growing for the last twenty years until it is now a multibillion dollar business in the United States and a trade with over twenty thousand shops in Britain.<sup>7</sup> It started off by catering to relatively unskilled labor in the house, such as wallpapering and painting, and then moved into all constructional areas, including the most complicated ones. Presently it accounts for most home interior work, and it has now been serviced in Britain by a *Do-It-Yourself* magazine, regional shops and a yearly display of new gadgets and products. Unfortunately, however, the philosophy and aesthetic of the movement remain subservient to rather trivial examples in the building trade and architectural magazines. The do-it-yourself handcraftsmen try to copy these sources rather than realize the inherent potential and style of their own unique modes of action. For one thing, they don't take advantage of products in ways that have just been discussed and, for another, they confine their consumer strategy to specially designed products. If they broadened their base in the direction of the *Whole Earth Catalog* and restructured their approach to include all the modes and styles of society, they could emerge as a movement relevant beyond the confines of the building world.

How much of the environment is now designed unself-consciously without architects and without specialized technicians? So much that a more positive and thoughtful attitude towards this area is mandatory. Perhaps 80 or 90 per cent of the man-made world is reconstituted *ad hoc* for specific purposes. The objects forming this background are ready-made and appear spontaneously given as a gift of nature or mass

production, already replete with meanings and functions. There is no need to start every design problem from scratch without knowing and using these objects. The fact that the environment is already tuned up finds recognition in other fields. As Picasso said, "I don't search, I find"; as T. S. Eliot said, "the bad poet borrows, the good poet steals." Both epigrams point to a coded and loaded world. All one has to do is stumble upon these ready-made subsystems and combine them in a new way.

<sup>7</sup> See the further discussion of this idea by Nathan Silver, page 126.







(73) *Anywhere, Park Avenue, 1970.* The present environment is tending towards extreme visual homogeneity. As a result, written signs have to explain buildings—"bank, office, church" etc. It's as absurd as a blank canvas titled "This is a Rembrandt"

(74) *Vesnin Pravda Building, 1923.* Already in the twenties the Constructivists formed an articulate architecture made up *ad hoc* from heterogeneous objects: loudspeakers, elevators, searchlights, flags, structure, signs and the projected copy of the daily newspaper

## 5 Towards an Articulate Environment

The present environment is tending towards both extreme visual simplicity and extreme functional complexity. This double and opposite movement is eroding our emotional transaction with and comprehension of objects.

In opposition to this, adhocism makes visible the complex workings of the environment. Instead of an homogeneous surface which smooths over all distinctions and difficulties, it looks to the intractable problem as the source of supreme expression. From problems, from the confrontation of diverse subsystems, it drags an art of jagged, articulated cataclysms that shouts out the problem from every corner.

By combining diverse subsystems *ad hoc*, the designer shows *what* their previous history was, *why* they were put together and *how* they work. All this articulation is pleasing to the mind and allows an experience of a higher order.

Meaningful articulation is the goal of adhocism. Opposed to purism and exclusivist design theories, it accepts everyone as an architect and all modes of communication, whether based on nature or culture. The ideal is to provide an environment which can be as visually rich and varied as actual urban life.





### From an intractable problem comes expression

The double and opposite movement towards extreme visual simplicity and extreme functional complexity is eroding our understanding and appreciation of objects whether they be consumer products or buildings, furniture or vehicles. They are becoming inarticulate on a communicative level while incomprehensible—or even invisible—on a technical level. In opposition to this growing visual impoverishment and muteness, adhocism posits a functional expressiveness, the clear, dramatic accentuation of the complex meanings which are pervasive in urban society. Instead of the quiet, sleek hood of a car, it concentrates on the motor within.

One of the most obvious ways of making the environment comprehensible is by accentuating subsystems of which it is composed. On a small scale, the architect Charles Eames has constructed his own house from ready-made subsystems which are mass-produced and displayed through a catalogue (75). This house has all the virtues of classical modern architecture: it is clear, crisp, integrated and beautifully put together even though it combines parts from different sources. Every choice which has gone into its realization has been directed as well by the tenets of visual harmony and good taste, thus showing that even adhocism can produce elegance and simplicity when they are desired. The consistent visual harmony that characterizes the *ad hoc* use of Meccano and Leggo Toy Systems (76) is another example of the integration that is possible. But both these examples show an *a priori* bias towards integrated results symptomatic of the first machine age. They deny the diversity of possible subsystems, smooth over real differences between the parts and tastefully integrate one area into another.

A much more direct approach to the same problem is shown by the accretions which are made in different cultures to buildings. Thus at Blois, in the Loire Valley, through a series of happy accidents over several hundred years each epoch tried to rebuild the whole château but was only able to add on its separate piece (77). Gothic, Renaissance, Classical and Baroque are smashed into each other around a unifying courtyard in a sequential juxtaposi-

tion of styles. Far from disturbing us, it gives a striking image of each epoch's identity. As is often the case, adhocism resulted not from desire but rather from a recurrent lack of funds.

Usually when modern architects or theorists come across this kind of juxtaposition and medley of forms, all they can see is indecision. Thus Viollet-le-Duc is admired for his contribution of a rational functionalism to modern architecture, but is condemned by the historian Sir John Summerson for the lack of style of his indecisive constructions.

It is all marvelously clever, but I think you will agree that the result [78] is not very moving. It does lack style. It is rather like language invented *ad hoc*: a sort of esperanto evolved from the salient characteristics of other languages but lacking the vital unity which any one language possesses.<sup>1</sup>

1 John Summerson, "Viollet-le-Duc and the Rational Point of View," in *Heavenly Mansions*, pp. 157-58. New York, 1963.



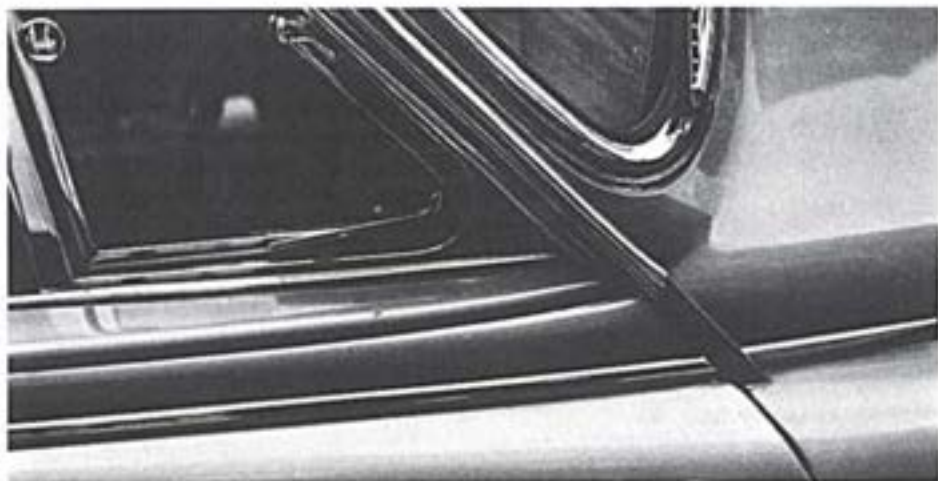




(79) Alison and Peter Smithson, *Hunstanton School bathroom*, 1954. Washbasins and other standard parts of an industrial civilization are used to achieve a stern, striking juxtaposition

(80) Mies van der Rohe, *Internal corner of the Seagram Building*, 1958. The half bay and lack of a corner mullion show a visual and intellectual inconsistency with respect to the rest of the harmonious building; the architect has tried to hide rather than confront this "impossible" problem

(81) Car joint between several consistent systems: rubber gasket, chrome channel, glass window, steel hood—a tortured play of forces results from the interlocking of systems

















One problem with Summerson's description here is that it overlooks the many functional reasons which Viollet-le-Duc gave for having juxtaposed materials; but as great a fault lies in suggesting that the result is unmoving and without style. True, it is without the integrated style that those trained in "the classical language of architecture" have come to love and expect in any fabrication deserving of their unction. But that only shows that once a classicist, always a classicist. Classical aesthetics of harmony, integration and consistency go so deep in our culture that even architects who start off by trying to contradict them, such as the Smithsons (79), end up returning to the fold and advocating taste and even the Spartan virtues of the Doric column. In the fifties the Smithsons advocated a form of "Brutalism"—straightforward realism towards industrial society; they saw it triumph around the world as an architectural movement, and saw it feed Pop Art, and then themselves turned on it with a vengeance which the newly converted reserve only for their previous errors. One is reminded of Goethe's classically misguided repudiation of his own brilliantly romantic youth.

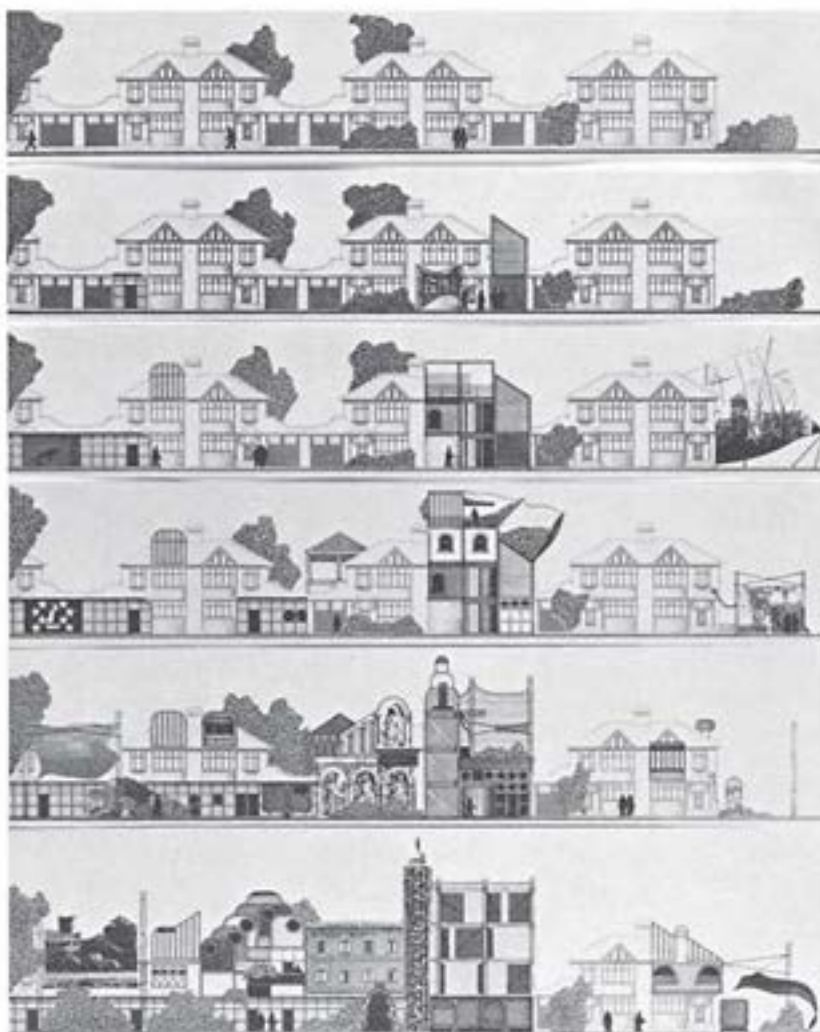
Whenever a new problem arises that doesn't fit within accepted solutions, the first, natural reaction is to deny its very existence. This is essentially the ostrich method of solving problems, and its ubiquity in classical periods of the arts cannot be overlooked. Drama is sacrificed for harmony, truth for beauty. A recent case in point is the late work of the classicist modern architect Mies van der Rohe—particularly when faced with such intractable enigmas as the "problem of the corner" (80). Architects wrestling with this problem in the past considered it evidence of the imperfect earthly condition where no completely "correct" or "perfect" solutions exist. Essentially, the problem here is that an internal structural system cannot be reconciled with an external mullion system and one or the other has to be made irregular. This inevitable irregularity represented to the classicist Mies a failure, a mistake in the nature of reality, and one that should be hidden from view. Yet unlike Mies certain architects faced this conundrum and tried to create a visual acknowledgment of the problem. They came to terms with the fallibility of the actual world and saw its inconsistency

as a metaphysical essence on a par with harmony. The inconsistency was in fact a spur to invention and the continual growth of the creative mind. Thus the corner, the juncture, the joint between any two consistent systems became for such Renaissance architects as Luciano Laurana and Michelangelo the stage for a cataclysmic struggle.

Instead of asserting in the face of reality that one universal solution, one material and geometry will satisfy all possible cases, it is admitted that some problems are intractable and allow several, botched solutions, none of which is entirely adequate. Problems exist to which there are no perfect solutions. This is just as essential and universal as underlying harmony. Adhocism celebrates the impossible problem, the question for which there is no final answer. From these recurrent enigmas it drags an accentuated conflict which dramatizes the imperfection of things. It acknowledges difficulties and instead of trying to deny them, makes them the subject for expression. Whenever there is a problem, look for the *ad hoc* juncture which results from this problem and mediates between conflicting systems (81). Auguste Perret epitomized the attitude of modern architects when he said "ornament always hides a fault in construction." In fact, as a positive gesture, ornament is the elaboration of an inevitable inconsistency. It articulates the point where structural forces come to a head and change direction, or it acknowledges the point where construction methods differ, where materials change because of a change in function.

In general, modern architects have tried to come up with joints that are consistent with the aesthetic of their building system. Furthermore, they have tried to design an all-purpose, mass-production system which would be low in cost and variable for different jobs. Buckminster Fuller, Le Corbusier and Walter Gropius have designed many such systems and, for instance, in Britain today there are over four hundred on the market. As if to prove that each one is flexible, or even universal, it is shown in a number of different contexts, with different arrangements. Yet no single system has been accepted and used often enough where its inherent economy can be realized. In most cases, brick building is still cheaper than system building. To counter this fact, the de-

			
RAY BOX	DELUXE BAY	CAFE	SEMICIRCULAR BAY
			
LEANTO	GARDEN SCREEN	BAY VAN	VAN UTILITY
			
GARDEN TRAY	TUBES	ARCADING	POLE SCREEN





signer often launches an attack on the primitive mentality of the building industry, its old-fashioned methods and the lack of massive governmental support for his own system—any excuse for denying that his prior commitment to a *single*, harmonious system is itself part of the problem. If, however, designers were to accept four or five different existing systems and put parts of them together where warranted, they might have a total system which was cheap and open enough to work for any project (82). The desired goal is to combine any two closed systems either by designing a third joining system—concrete, rubber or any plastic or elastic material that can be stretched across incommensurable surfaces—or by finding the juncture that already exists. When these industrial systems are placed together and separated by a juncture, we will have a visually rich environment much more responsive to needs and much more exciting in its dramatic juxtaposition. Instead of an art of easy, flowing surfaces that denies the reality of problems, we can have an art of jagged, articulated cataclysms that shouts out the problem from every corner. For a system of packaging that encloses every different function and character behind a similar facade, we can have a mode of articulation that will explain a complex environment to men. By combining diverse subsystems *ad hoc*, the designer shows what their previous history was, why the parts were put together and how they work.

A case in point is the dining chair by Nathan Silver (83). Its tractor seat and wheels retain a memory of their previous history in a farming

(82) Peter Cook, *Add Hox Project 1971—Mon Repos Strip*. Different systems added on over time reflect the several lives of this suburban development

(83) Nathan Silver, *Dining Chair*, 1968. Made up of a tractor seat, insulating foam and wheels from an orthopedic supply house (for easy movement on a brick floor). The serendipitous association with a ram's head is a typically happy accident of adhocism

and hospital context, in contrast to their present domestic use. Furthermore, the parts manifest their *raison d'être*: the reason why the wheels, seat and insulating foam are all there is as obvious as how the seat works. But beyond this is the density of meanings which such objects can carry simply because their subsystems are designed by more than one person. For instance, the complex moulding of the tractor seat, with its compound curves and weight distribution, shows a knowledge built up over generations. A single designer could hardly reinvent all the subtleties of such an object *ex nihilo*. Furthermore, it contains violent contrasts—rubber and chrome—and striking images—animal horns—which would not ordinarily be carried through by a single designer. He would usually be too constricted within the habitual parameters of a "dining chair" to ever imagine such possibilities. Thus it is in the richness and clarity of combining heterogeneous meanings that adhocism succeeds beyond more integrated methods of design. All of its complex articulation pleases the mind and allows it to comprehend and coordinate a much wider range of experience.

#### Meaningful articulation

. . . the most valuable states of mind  
 . . . are those which involve the widest  
 and most comprehensive co-ordination  
 of activities—the least curtailment,  
 conflict, starvation and restriction.  
 I. A. Richards





(84) Le Corbusier, *Algiers viaduct block*, 1934. "Here are artificial sites, vertical garden cities. . . . The architectural aspect is stunning. The most absolute diversity within unity. Every architect will build his villa as he likes; what does it matter to the whole if a Moorish-style villa flanks another in Louis XIV or in Italian Renaissance?" (Quote from *Ville Radieuse*, 1934)

(85) *Honfleur*. The self-regulating system of piecemeal growth is a complex rather than a simple process

The roles of art and education are often justified because they have a positive effect on the developing mind or psyche. Even the few great voices that have attacked civilization—the Iconoclasts, Rousseau, Freud—acknowledged that studying, learning skills and experiencing art have some effect on the individual, whether good or bad. One theory, Platonic in origin but recently upheld by those who would censor art, is that the object experienced has a *direct* influence on the psyche. Thus a melodious tune calms us, a pornographic picture excites us to imitative action, a play about courage incites us to heroism, and dynamic spirals, if we are Marxists, encourage us to usher in the next stage of the revolution. No doubt this theory

has some truth to it, but the fact that it is not completely or even largely true can be easily ascertained after a prize fight or a performance of *Oedipus*. Except for the rare case, everyone goes home passively as usual—calmed, not driven to action, by the performance.

If we are to believe that the experience of art and the learning of skills have any effect on us, then it must be for the most part *indirect*. That is, our mind is developed and changed mostly unconsciously in multiple ways. When we listen to the meaning of an actor's words, we unconsciously note his rhythm, accentuation and tone; when we concentrate on riding a bicycle from one point to another, we unconsciously learn to pedal, balance and steer. If we learned only one skill at a time, or if we were always effected *directly* by a work of art, it would be a very inefficient way to progress and we should always be victims of our environment. Luckily, learning is much more total and flexible than the Platonic theory of direct influence would have it. And yet, if suitably refined by the theory of indirect transfer of organization, the primary virtue of Platonic theory may be kept.

This virtue is basically the idea that learning and culture can be transmitted between different minds, and that qualities of the mind can be transmitted between different psyches. The motivating force is obviously the idea that high organization of intelligence is preferable to low, just as refinement of feeling is preferable to crudity. If states of mind are transferable, then potentially everyone could progress to ever higher stages of organized complexity. We pass from lower to higher stages of organization through the influence of other minds, through the effect of the arts and the environment. Living in a complex and meaningfully articulated environment, we would gain ever greater degrees of psychic organization, whereas in an impoverished environment we would (on the whole) lose stability and regress to more simplistic modes of existence. The effects of "stimulus deprivation" on growing animals has already been mentioned, and one can postulate similar kinds of effect on men.<sup>2</sup> In all

but the rare instance, the impoverished, simplistic environment hinders the growth of the mind.

The next question then becomes, how can we acknowledge and satisfy all the multifarious forces in our environment without oversimplifying them? Obviously there is no easy answer, but from a certain logical extreme one answer has always been clear: let each individual design his local environment within a larger ordering system (84). As the libertarians, liberals and anarchists have insisted, real freedom consists of working in accord with internal laws, and not just accepting the boundaries of external parameters, however wide and permissive. Hence as a logical extreme, one could not achieve a more honest and complex articulation than by giving the individual the legal and financial means to build his own environment. The complex order that would emerge would be adjusted piecemeal to every imbalance in the environment or to the individual's significant need. It would thus undergo continual and small readjustments *ad hoc* until it was finely tuned to the exigencies of life (85). The advantage of this piecemeal method of ordering over totalistic planning is that it allows one to disentangle causes and effects and to learn from mistakes; totalistic planning, in seeking to change everything at once, has no relative order against which to measure progressive change.<sup>3</sup>

One of the difficulties involved in getting people—above all planners—to accept this organized complexity has been purely conventional. They have been taught to believe that complexity is synonymous with chaos and indecision. Thus they assume that the contrary idea too—a simple order, the clear repetition of suburbia or the New Towns—is an answer to urban organization. Jane Jacobs asks of this mentality—

Who would prefer this vapid suburbanization to timeless wonders?  
... An all too familiar kind of mind is obviously at work here; a mind seeing only disorder where a most intricate and unique order exists; the same kind

2 See Hydén, "Biochemical Approaches to Learning and Memory," in *Beyond Reductionism*, edited by Arthur Koestler and J. R. Smythies, pp. 85–103, and references to Skeels, London, 1969.

3 Karl R. Popper, *The Poverty of Historicism*, pp. 66–67, London, 1957.



of mind that sees only disorder in the life of city streets, and itches to erase it, standardize it, suburbanize it.<sup>4</sup>

Beyond the purely conventional reasons for this inability to deal with complexity lies the question of reductivism. The urge to reduce complexity and deny that which is not clearly visible has been overpowering in recent times,

4 Jane Jacobs, *The Death and Life of Great American Cities*, p. 460. Harmondsworth, 1964. See also Nathan Silver's discussion of planning below, pp. 179 ff.

(86) Le Corbusier, illustration of *Purisme*: Simple forms "release" constant primary sensations which are modified by the individual's culture and history (or secondary sensations)



(87) *Brasília*, 1959, by Oscar Niemeyer and others. An architecture of the Purist language which is erratic in its signification stripped as it is of a conventional cue which would stabilize the meanings

as if men were somehow trying to compensate for the fact that recent discoveries have nearly all been invisible and highly complicated. Whatever the cause may be, this oversimplification and reduction are contrary to the growth of the developing mind which, like complicated urban tissue, is always reaching levels of greater organized complexity. Another explanation of the preference for simplicity is advanced by Gestalt psychologists, who have shown the reductive element in all perception and thought. We simplify forms to the nearest gestalt shape, just as we generalize arguments to higher levels of abstraction. Yet many have taken this partial truth as a moral injunction. For instance, Le Corbusier and Amédée Ozenfant proposed a theory of painting and architecture which would be based primarily on Platonic forms: cones, spheres, cylinders, cubes, etc. They argued that only these simple forms were *universal*, and that they would in fact set off "identical sensations" in "everyone on earth—a Frenchman, a Negro, a Laplander" (86). In essence they were arguing for a universal language of the emotions—*Purisme*—which would cut through the Babel of contending, eclectic languages. The individual words of this language would be the psychophysical constants found by psychologists. A flat line would mean "repose," a blue color "sadness," a jagged, diagonal line "activity," and so on until the whole gamut of emotions



had been built up. They argued, as Plato often did, that nature had constructed within us a fixed language based on efficiency, geometry and function; this language of the emotions was the most economical and pure one—hence *Purisme*.

No doubt such a language does exist on a very rudimentary level. Some colors are inherently sad, just as some notes and rhythms are intrinsically chipper and gay. Yet to elevate this universal language to a level of priority over conventional languages was a mistake of the first order, because if there is any priority it is just the reverse. A chastening example may serve to make this clear.

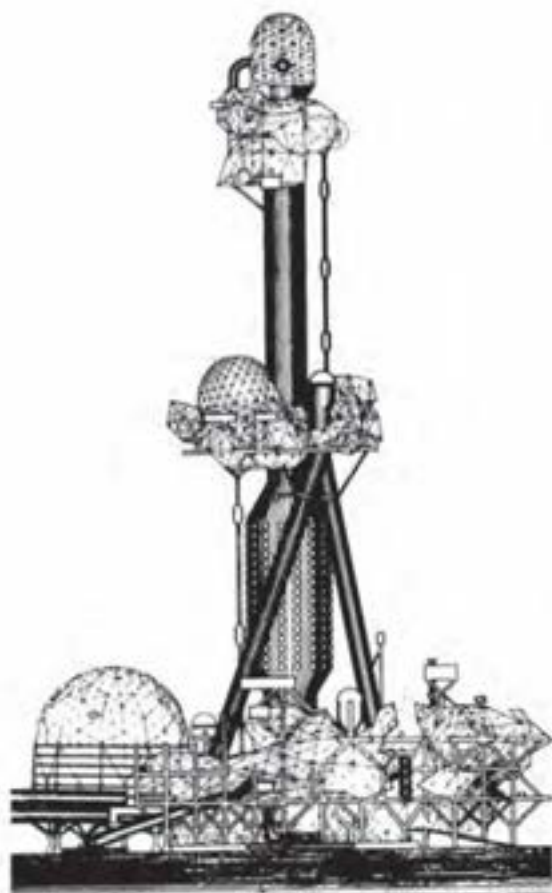
The Palace Complex at Brasilia was constructed, according to Corbusian doctrine, out of pure, primary shapes, all in light colors and simple patterns. The two congress halls were built as semispherical dishes resting on a flat plane of Euclidean splendor (87). As such they should have released the "identical sensation" of harmonious balance in every Brazilian. They should have meant the same thing to everyone: the universal truth of the sphere which is equidistant at every point from its center, the symbol of perfect harmony cut in half and shared by each congress. Yet what in fact did they signify to the Brazilians? They were interpreted as two gigantic salad bowls signifying the government's love of eating up large quantities of the people's lettuce—i.e. much of their Gross National Product had been given over to building these monuments. Thus, contrary to *Purisme*, the purely local and conventional meanings of the society took priority over the universal and natural ones. This is true of all but the most specialized languages, and it accounts for their great power and flexibility. They are codes built up through habit and use which have a conventional connection between form, content and function. The conventions can be changed and re-established to suit the situation, rather than the same form always having to delineate the same function or content. The essential strength of forms is not that they have inherent meanings, but that they change function by recombination and use. Thus architecture is always building up codes and conventions by which it will be understood, whether these codes are styles, building regulations or the Five Orders.

The rigid orders of ancient architecture would seem to be a fairly recalcitrant matrix for the expression of psychological and physiognomic categories; still it makes sense when Vitruvius recommends Doric temples for Minerva, Mars, and Hercules, Corinthian ones for Venus, Flora, and Prosperina, while Juno, Diana, and other divinities who stand in between the two extremes are given Ionic temples. Within the medium at the architect's disposal, Doric is clearly more virile than Corinthian. We say that Doric expresses the god's severity; it does, but only because it is on the more severe end of the scale and not because there is necessarily much in common between the god of war and the Doric order.<sup>5</sup>

It does not matter too much whether these codes have a naturally expressive base or not. What is crucial is whether they are conventional, well understood and used coherently so that at least some meanings can be conveyed. The actual codes that are used today tend to be constructed *ad hoc* from many different sources. Thus the British-based Archigram Group makes up their code from comic books, spaceware, computer nets, soap bubbles and even the flexing tentacles of the octopus. A case in point is their Montreal Tower scheme of 1964 (88) which uses four elements from this code semantically: the pneumatic tube to signify quick vertical movement, the geodesic net to signify wandering circulation, the geodesic dome to signify auditoria and exhibition areas, and the plastic pod to signify individual hotel rooms. Given these four elements, it is appropriate that each one should be used as it is. But, as with the Five Orders, it is not because of any natural or functional relation between, say, auditoria and geodesic domes, but rather just a semantic appropriateness within the given gamut of options. That is, of the four elements the dome is most like an auditorium, a tubelike movement, a pod like a room and so on.

Many people have lamented the passing of the classical language of architecture and the introduction of every possible form and material

5 E. H. Gombrich, *Art and Illusion*, pp. 316–17. London, 1960.



(88) Peter Cook, *Montreal Tower Project*, 1964. As in most *ad hoc* codes, the sources for the sublanguages are clearly recognizable: oil refineries, pneumatic tubes, exhibition halls, etc.

into the architectural code. In a very real sense these feelings of loss and anxiety are justified, because what has been lost is both a *shared* basis of conventional meaning and the coherent use of motifs or subsystems. Yet the situation is in part inevitable owing to the rapid and constant changes in technology. Hence it becomes necessary for everyone to learn a series of new architectural languages, each one emerging with a new technology and a creative architect who constructs his own code. Indeed, the modern architect as much as the modern poet is expected to "create the audience by which he is judged," and he is considered somewhat anachronistic if he relies on past languages and their audience. The psychological reason for this incessant invention is no doubt due to the quickness with which languages are plagiarized, exhausted and turned into aca-



(89) Antonio Gaudí, *Finca Güell entrance*, made from different materials and styles

demical formulae. At any rate, many modern architects have felt it necessary to reconstruct new codes from languages that have been relatively uncontaminated.<sup>6</sup> Gaudí built up a dialect from rough stones, broken glass, ironwork and masonry (89). The Vesnin brothers helped to develop Constructivist language by using mechanical devices and advertisement (74). Architects such as Le Corbusier and Robert Venturi have replenished the modern vernacular with phrases borrowed from airplanes, ocean liners and neon signs. American architects such as Simon Rodilla, Herb Greene and Bruce Goff have constructed their *ad hoc* vocabularies out of such readily available techniques as shingle construction, used Quonset huts, chicken wire and hard coal masonry.

Of all these architects, Bruce Goff is the most clearly adhocist inasmuch as he goes the furthest in accepting heterogeneous material and diverse subsystems. He is not afraid to mix genres and is quite prepared to forgo a consistency which even such adhocists as Gaudí and Rodilla attain. This inclusive approach comes partly from his experience during the war, when he was forced to build with available materials. He wrote me about this:

During my three years in that war as one of the U. S. Navy Seabees, I was often called upon to build, in the

6 Adhocism in architecture is elaborated further by Nathan Silver, pages 159-71.



(90) Bruce Goff, "Star-Bar," SeaBee Camp, California, 1942. "This bar was improvised off backstage for the entertainment of entertainers. It had to be done for a low budget. Hence part of the existing wood structure was left exposed. Scrap plywood was cut into squares for floor tiles and finished with shoe polish. Grocery string was used for spatial decorative lines. The white wire cone had an electric fan in the floor to provide ventilation and activate colored balloons inside the cone—a balloon fountain!"

Aleutians and later in California, with whatever materials were available. Thus, in Dutch Harbor, I was faced with the problem of remodelling the officer's club. All plywood was fir, usually stained. To give it more distinction I had it sandblasted which brought out the grain in relief. This was, after the war, later manufactured by a large company as "etched wood." I discovered an entire warehouse full of molded door and window casings, of no use whatever in any of the military buildings being built. I used them to cover poorly executed posts and beams, then in place, placing them about an inch apart in which was inserted an inch strip of copper-plated Sisalkraft paper, usually used for flexible flashings. There was a part roll of this material which had been discarded. I also made use of welded wire, blue glass navy ashtrays and plastic tracing paper for light fixtures. I kept my eyes on scrap piles for possible discarded items which might be usable (90). I became fascinated with the potential of

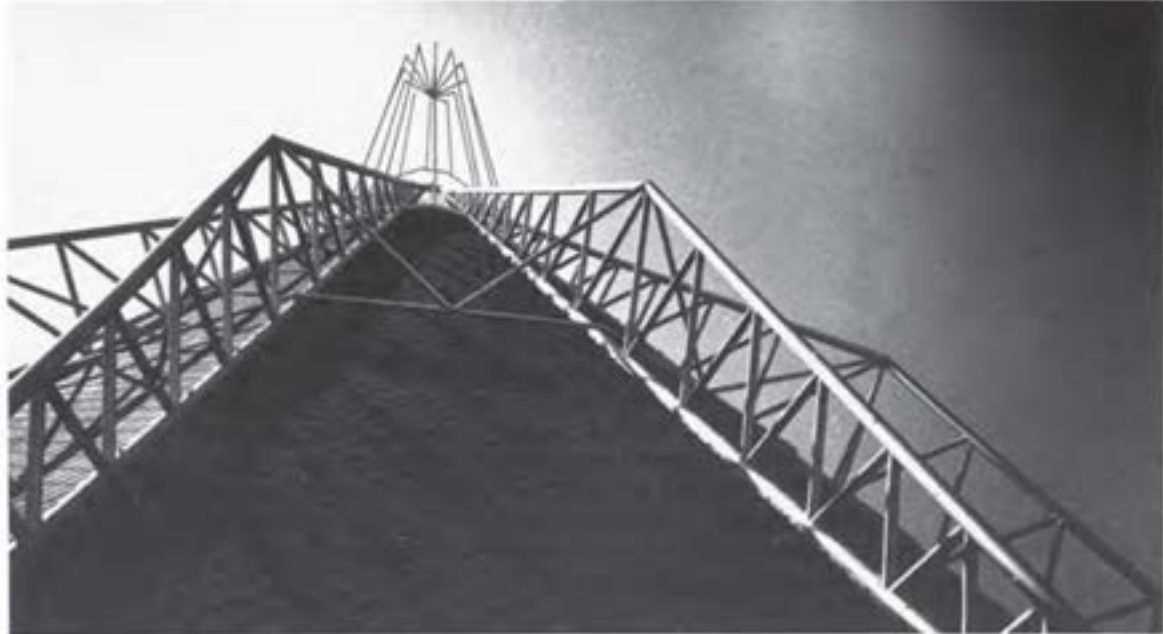
such "found" materials and still use them when they seem appropriate.

I know that usually *ad hoc* refers more to using parts of made objects than to materials themselves. However there are certain materials such as glass cullet, hard coal, etc. which are not ordinary building materials, but may be used as such. . . . Quite often I have used glass dishes, ashtrays, plastic cake plates, etc. for decorative accents in doors, windows, light fixtures, etc. (91, 92).

In other projects, Goff has used prefabricated metal spheres which are available from the oil industry and concrete sewer tiles—filled with reinforced concrete—as structural columns.

In terms of semantic articulation, his most successful scheme is the Ford House (93). Again built from a variety of available materials—hard coal and Quonset ribs—he uses this diversity to manifest the character of each function. The private bedrooms are enclosed in shingled quarter domes, the semipublic living area is framed in Quonset ribs and is half sheathed in glass, and the more intimate parts of this area are encased in wood and coal—with the occasional lighting accent produced by insets of rough glass cullet. The points of transition, as well as those areas with which one has close contact, are softened by patterns of stained rope and fish net (94). Essentially, Goff is inventing a coherent visual language

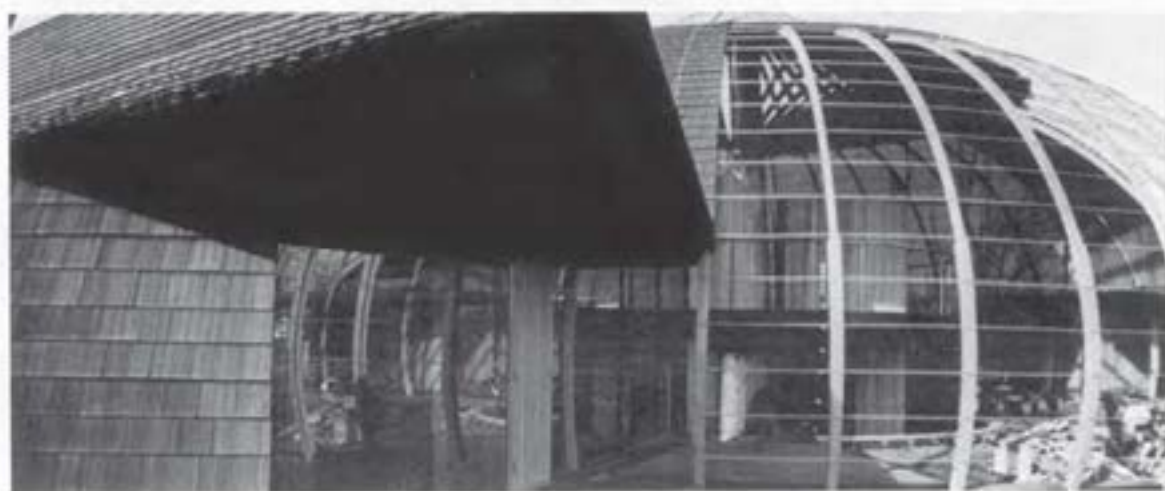




(91, 92) Bruce Goff, *Hopewell Baptist Church*, Oklahoma, 1952. "Exterior frame of welded drill stem pipe salvaged from the oil fields (the church is for oil field workers)."



based on unusual forms and materials which he uses in a semantically articulate way. Yet a certain price has been paid for this unconventionality. The Fords finally put up a sign outside their "Umbrella House" (as it came to be known): "we don't like your house, either," and Goff has remained without recognition within the architectural profession. The semantic richness and precision of his work is taken for irrationality and whimsy by many architectural critics. Whereas art critics are ready to accept—indeed are looking for—the new fabrication of a consistent visual language, architectural critics, like the general public, are much more conservative and unwilling to accept the introduction of new codes.



Yet in spite of the conservatism, these new codes will continue to be generated by each new generation of architects and by every change in technology. The total stock of architectural resources is always being replenished with unusual elements; it is those few architects, such as Goff, who can use these new options *ad hoc* in a semantically appropriate way who are opening up the real possibilities for a rich and articulate environment. Only such articulation is equal to the pluralism, delightful heterogeneity and complexity of modern life.

(93) Bruce Goff, *Ford House*, Aurora, Illinois, 1949. Coherent articulation with diverse subsystems (see also 207)

(94) Quonset ribs used for the dome, hard coal and glass cullet for the walls, and salvaged creosoted, stained rope for the frames and soffits





## 6 The *Ad Hoc* Revolution

The main causes of revolution are social and political.

On a social level there is a cataclysmic imbalance in wealth between nations and within nations, while on a political level there is the slow curtailment of the specifically human virtue—freedom. All this oppression and covert violence lead to the explosive situation of revolution, but—unfortunately—revolution has been as virulent as the disease it was meant to cure.

The time is ripe for redefining the theory and practice of revolution—beyond the Vulgar Marxism and liberal reaction of the present.

Two proposals:

First, the revolutionary interests should be recognized in their actual plurality rather than limited to one class or group.

Second, this plurality of *ad hoc* organization, which always occurs in popular revolution, should be preserved. The groups, or communes, or *Räte*, are the basic institutions of freedom and civil life; they must be allowed to spring into existence and thereafter be protected by institutions and law.

(95) *Landgemeinde in Switzerland*. Although occurring only once a year and excluding women, this form of political organization—where anyone can intervene *ad hoc*—shows the essence of the public realm

(96) *Peking Rally, the pseudo-public realm*, 1968. The debate is controlled in subtle ways, including architectural, and the audience is too large for informed opinion to emerge

## Two theories of revolution

Since the revolutions of the eighteenth century, every large upheaval has actually developed the rudiments of an entirely new form of government which emerged independently of all preceding revolutionary theories directly out of the course of revolution itself, that is, out of the experiences of action and out of the resulting will of the actors to participate in the further development of public affairs. This new form of government is the council system which, as we know, has perished every time and everywhere, destroyed either directly by the bureaucracy of the nation states or by the party machines. . . .

Spontaneous organization of council systems occurred in all revolutions, in the French Revolution, with Jefferson in the American Revolution, in the Paris Commune, in the Russian Revolution, in the wake of the revolutions in Germany and Austria at the end of World War I, finally in the Hungarian Revolution. What is more, they never came into being as a result of a conscious revolutionary tradition or theory but entirely spontaneously, each time as though there had never been anything of the sort before.<sup>1</sup>

Because these spontaneous *ad hoc* groups have never been supported by revolutionary theory, as Hannah Arendt argues, they have never received adequate recognition and have furthermore been actively suppressed. Fortunately many people today from different areas—Noam Chomsky from linguistics, Daniel Cohn-Bendit originally from sociology—are beginning to see the relevance of these *ad hoc* organizations and form a developed view and defense of them. They are now coming to be seen as the basic institution of a new politics—with debate as their form of expression, full participation as an ideal, and spontaneous assembly as their first right. Yet like discovering new uses of the wheel, the interest, indeed excitement, of participating in the formation and

workings of these groups is actually as old as the institutions themselves.

"Citizens, the word 'popular society' has become a sublime word. . . . If the right to gather together in a society could be abolished or even altered, freedom would be but a vain name, equality would be a chimera, and the republic would have lost its most solid stronghold. . . . The immortal Constitution which we have just accepted . . . grants all Frenchmen the right to assemble in popular societies."<sup>2</sup>

Thus a French revolutionist in 1793. Unfortunately no such "immortal Constitution" was ever really accepted and these *ad hoc* societies have never been adequately protected and allowed to flourish. The reasons for this have to be found in the historical theories of revolution—both social and political—and their effect on actual upheavals.

A straightforward look at the social conditions prevailing in almost all parts of the world has brought many political theorists to the conclusion that only by a revolutionary upheaval will the majority, the poor, be liberated from wage slavery. No controlling group or class has ever given over its power and wealth willingly by reform, even if it has from time to time tried to ameliorate the conditions of social inequality. In the United States half of 1 per cent of the population owns more than 30 per cent of the total wealth, while in England with its welfare ideology the distribution is only marginally better. The imbalance in wealth between countries is even more extreme, and like class inequality it will remain chronic and relatively stable unless there are sudden upheavals to challenge the inertia of the world economic system and its various components.

Marx and certain of his followers developed one theory of this challenge into the notion that the substructure (or the means and relations of production) determines the superstructure (or the state, ideology and forms of cultural life). The underlying idea is that these sub- and super-structures come into a natural conflict which results in revolution, and this revolution ultimately leads to the liberation of

1 Hannah Arendt, "Thoughts on Politics and Revolution," *New York Review of Books*, April 22, 1971, p. 19.

2 Hannah Arendt, *On Revolution*, p. 246. New York, 1963.

the class which has developed in the womb of the previous social order. Thus, in a sense, social progress could be generated by man's material drives and the conflict between classes. This theory has been called "Vulgar Marxism"<sup>3</sup> because it implies that man's most vile drives—lust after power and material gain—determine the course of history and man's consciousness. Whether Marx was a Vulgar Marxist can be doubted, although there are frequent times when it appears so—

The mode of production of material life determines the general character of the social, political, and spiritual processes of life. It is not the consciousness of men that determines their being, but on

3 See, for instance, Karl R. Popper, *The Open Society and Its Enemies*, pp. 100 ff. London, 1966.

(97) *Vulgar Marxism*. The theory that social change, by a series of revolutions, is driven by the conflict between sub- and super-structures. Harmony reigns at the start and finish of this dialectic, but in between there are upheavals in which the substructure always emerges the winner. In this sense economic forces and their psychological counterparts are the determinants of historical change

the contrary, their social being determines their consciousness.<sup>4</sup>

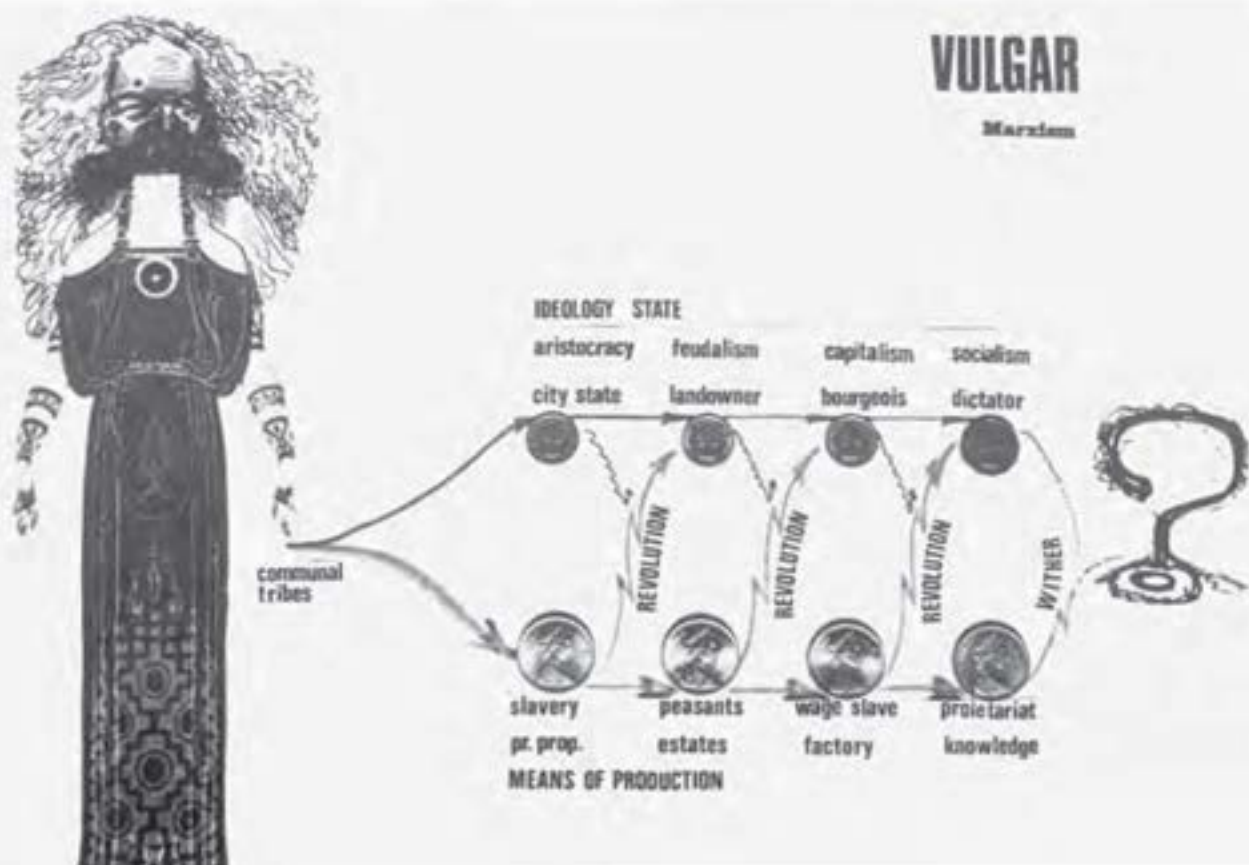
As opposed to—

It is well known that certain periods of highest development of art stand in no direct connection with the general development of society, nor with the material basis . . . of its organization. Witness the example of the Greeks as compared with modern nations or even Shakespeare.<sup>5</sup>

Whatever Marx really believed, the theory of Vulgar Marxism has a certain interest because so many believe it to be true, and because in its large outlines it appears to be true. Basically it postulates a five-stage process which begins and ends in harmony between the sub- and super-structures (97). The general direction of revo-

4 Karl Marx, Preface, 1859. Quoted from *Karl Marx*, edited by T. S. Bottomore and M. Rubel, p. 67. Harmondsworth, 1969. This oneway, external determinism of Marx paralleled that of the Darwinians and Behaviorists discussed earlier.

5 Karl Marx, *A Contribution to the Critique of Political Economy*, p. 311. New York, 1904.







1  
dissent, issues



2  
gov. fails



3  
moderates rule



4  
coup d'état



5  
reaction

#### ENGLAND

DAY MONET, 1845-1850  
ABSOLUTE RULE  
TOLERANCE

LONG PARLIAMENT 1640  
KING (KING'S POOL)

PURITAN CHURCH  
PROTESTANT  
CIVIL WAR

INDEPENDENT  
NEW MODEL ARMY 1645  
CIVIL WAR

COMMONWELL 1653  
RESTORATION 1660

#### AMERICA

THE A REPRESENTATION  
CONTRACTING

STAMP ACT 1765  
CONGRESS  
DECLARATION  
JULY 4 1776

CONGRESS COMMITTEES  
TO STATES  
CONSTITUTION 1787

...

"WASHINGTON"

#### FRANCE

THE  
RIGHTS OF MAN

ASSEMBLY 1789  
ESTATES GENERAL  
BASTILLE

COMMONS  
BONAPARTE'S  
BONAPARTE  
CIVIL WAR

BONAPARTE  
JACQUIN  
TERROR 1793

BONAPARTE  
CONSTITUTION 1799

#### RUSSIA

HIGH PRICES & WAR  
CIVIL WAR

WOMEN'S DAY FOR JULY  
ARMY DAY

SAVITS  
PROLETARIAT  
CONSTRUCTION

LENIN  
BOLSHIEV  
CIVIL WAR

STALIN  
MAY 1927  
PURGES



(98) *The Anatomy of Revolution*. The five-stage process consists of (1) idealist visionaries and discontent, (2) the "crunch point" which sets off the revolution, (3) rule of the moderates, and the triumph of the self-organizing groups, (4) takeover by a single figure and party with the reign of virtue or terror and (5) reaction and restoration of oppressive authority. The various anatomy at the bottom symbolizes (a) the utter surprise of the revolution to everyone, (b) the dual power structure which lasts until the single party takes over and (c) the "revolution devouring her children" during the reign of terror. Needless to say, this model does not do full justice to Crane Brinton's more subtle analysis

revolution is caused by all sorts of classes without the inevitable victory of one predetermined group.

Rather than understanding revolution just as an engine of social change, it makes as much sense to see it as a "natural process," or at least a likely recurrent event for any society. A supposedly stable society such as England has experienced, according to P. A. Sorokin, one hundred and sixty-two "internal disturbances in intra group relationships" between 656 and 1921. This is, on the average, one every eight years. It is not hard to see why there is eternal recurrence of violence. Apart from racial tensions and conflicting ideologies, it is caused by the basic, irrational distribution of wealth and the lack of real political freedom in all existing governments. The latter two deep-seated causes will undoubtedly continue to generate conflict until they are finally dealt with directly. To call political freedom the right of the people to choose between two preselected candidates every four years is as partial as calling a wage earner free. Freedom in both cases consists of conforming within the predetermined limits set by others.

lutionary change is towards the increasing social liberation of ever greater numbers until finally, when the wage slaves are set free, the necessity of a state will "wither away." Although this theory has certain things to recommend it (social forces do spark change which seems to be of a general liberating nature), it vastly underrates the role of the superstructure and is too vague to be applied to any actual historical situations. In a very broad sense each successive class may emerge from the womb of the previous one in power, but any particular

An account of revolution which deals with the multiple political forces that have actually caused particular upheavals is Crane Brinton's *The Anatomy of Revolution*.<sup>6</sup> In analyzing four revolutions—the English, American, French and Russian—he discovers recurrent patterns which focus the more abstract notions of Vulgar Marxism. For instance, while in the first stage of revolution a recurrent economic factor may act as a partial trigger (an extra tax law), it is usually the aristocracy, the middle and upper classes who initiate and continue the revolt. The Jacobin clubs were made up mostly of the middle classes, the leaders of the American Revolution were mostly establishment gentlemen with a college education, and the major figures in the Russian Revolution came from all strata including the top. Thus monolithic class interest has to be ruled out as the paramount agent of change.

The anatomy of revolution which Brinton finds in these four selected examples may be roughly schematized as a five-stage process, beginning with very general causes and ending with some kind of reaction and restoration (98).

The first stage is long in its duration and hazy in its outlines, but it may be roughly defined as the period when intellectuals and much of the upper class stop supporting the power structure, when this structure or government starts to falter, and when it tries, with disastrous results, to reassert its previous power. The aborted reassertion is usually attempted in the form of increased taxation, but it may be as general an economic program as that which resulted in the high prices of wartime Russia. In any case, the government is inefficient, under attack by much of the populace, and no longer able to act forcefully. This helps explain the surprise of the second stage, the "crunch point" of actual revolt, when an innocuous event like a Women's Day bread strike in Russia quite spontaneously topples the governmental power. This event, or rather non-event, catches almost everyone off guard, the professional revolutionist above all, but even the *post-factum* analyst or historian. For when did the American Revolution first start? In 1765 when the British tried unsuccessfully to enforce the Stamp Act? In a series of skirmishes thereafter? Or not until the Declaration of Independence in 1776?

6 Crane Brinton, *The Anatomy of Revolution*, New York, 1965.

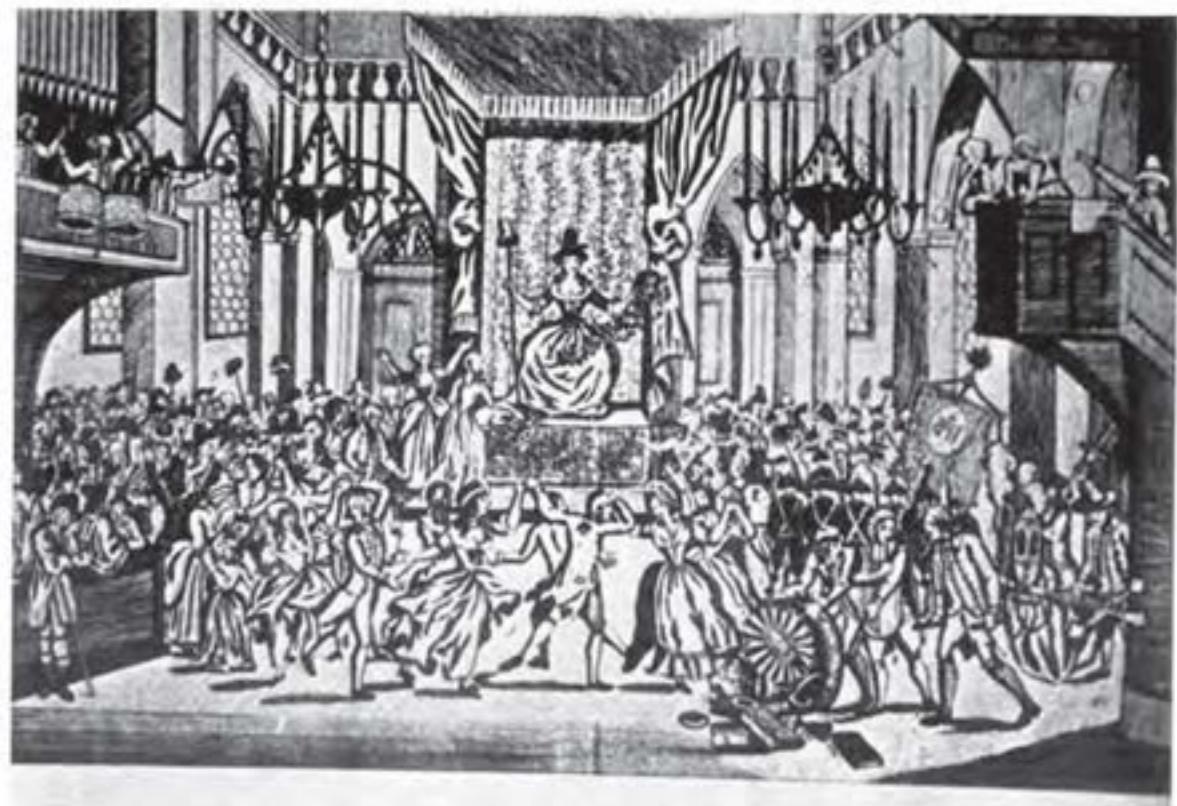
It is just as difficult to isolate the point when the government loses its force, or the army and police change sides, since these are often slow-motion events. Nonetheless it is not until these explicit organs of power have gone over to the opposing side that one can speak of a true revolution. America in the late 1960s was perhaps at the end of the first stage of revolution with a recession and loss of credibility in the government, but the armed forces had not deserted. France in May 1968 and Hungary in 1956 were at the beginning of the second stage when the act of revolt brought the country to a halt and upstaged the government, but again the operative armed force did not change sides. (Of course, in Hungary the Russians invaded to stop what was already a two-stage revolution.)

Beginning with the second stage and culminating in the third are the operative institutions of revolution—the set of *ad hoc* groups which spontaneously organize for such specific purposes as mutual defense and aid. Hannah Arendt has termed these groups "the lost treasure of revolution," because they are unpredicted by theorists, unexplained by a tradition and unwelcome to all those with an elitist view of power—Jacobin, Marxist and liberal alike.<sup>7</sup>

What is striking in the second and third stages is that because of the plurality of these groups, no one really knows who is ruling or who is in control of the society. There is either a dual power structure (the Soviets and the Provisional government) or a plurality of power structures corresponding, for the first time in local history, to the plurality of interests. How multifarious and obscure these *ad hoc groupuscules* can be is evident in the English Revolution where one could be a Bidellian, Coppinist, Salmonist, Dipper, Traskite, Tyronist, Philadelphian, Christadelphian, Seventh Day Baptist, Socinian, Arminian, Libertine, Antinomian, Independent or Muggletonian—to name just a few of the going options. One could also follow such *ad hoc* namesakes as Praise-God Barebone or Put-Thy-Trust-In-Christ-and-Flee-Fornication Williams. The passion for renaming and restructuring all the rituals of society bursts out at this stage. During the French Revolution changing such names as the Place

7 Arendt, *On Revolution*, pp. 217 ff.





(99) *The Goddess of Reason at a Jacobin fete at Notre Dame, ca. 1793. The red Phrygian cap of liberty and other more obvious ad hoc transpositions of Christian usage are evident here*

Louis XV to the Place de la Revolution was an obvious necessity. More radical was the *ad hoc* translation of a Christian Kingdom into a Kingdom of Reason. The Christian calendar of Sundays, saints' days and holidays such as Christmas and Easter was redefined into more poetic units named after nature (*Germinal*, the month of buds, *Fructidor*, the month of ripening), and more reasonable units based on the *decadi*—the ten-day week. The Cult of Reason sprang up all over France in 1793 and was even worshipped in the Cathedral of Notre Dame. After the Bishop of Paris resigned, proclaiming his previous error of supporting Christianity, the Goddess of Reason, impersonated by an actress of wealthy means, took his place at the altar. She sat under a baldachino holding the new symbols of power, while all around her danced Jacobins in various states of religious, revolutionary and reasoned ecstasy (99).

The same transposition of old into new usage can be found in the Russian Revolution. The change from *Monsieur* to *Citoyen* in France was parallel by the change from "Sir" to "Comrade" in Russia. Atheistic Easter festivals were designed. The mechanical environment, taking the place of nature for the Russian avant-garde, was turned into the arena where the drama of dialectical materialism could be played out. Concerts were conducted by directing factory sirens and steam whistles across the industrial landscape (100). The current progress of these revolutions could be measured by how active and successful was the *ad hoc* recreation of rituals and conventions. George Orwell, who was in Spain during the rise and fall of the revolution in the thirties, describes indicators of its fate for the popular front in the fluctuations of word usage. "Comrade" and "Salud!" when it was going well, and the more servile forms of "Señor" or "Buenos días" when the reaction against revolution set in.

The fourth stage of the revolution is marked by the radical reduction of plurality into unity.





(100) *A symphony of factory sirens* was first suggested by the poets Gaster and Mayakovsky

One reason given is that the revolutionary situation is unstable: a civil war is going on, the counter-revolutionists and conservatives are fighting back, and there is supposedly no room for dissent or individualism. The resulting reign of terror is really a reign of virtue which tries to treat political questions as if they were heavenly ones allowing of a single, true answer. Built into the logic of the situation are three *external* factors which come to a head demanding immediate and extreme action: (1) a foreign and civil war which demands counter-violence, (2) the internal conflict between groups which results in violence, (3) an acute economic crisis and breakdown of large-scale machinery. The only group prepared to meet the crisis is the one with a theory of revolution, the professional organizers of social change who can act decisively and violently. What they propose and promise is exactly what the pluralists, communes and moderates cannot deliver: peace, food for the starving, and a radical solution which is "ideal" in nature. The moderates and *groupuscules* debate endlessly among themselves over the niceties of liberty and freedom of speech while all the time starvation and counter-revolution threaten. Slowly the public realm declines; the electorate loses interest and diminishes considerably in size. From June to October 1917 in Russia, for example, the number of people willing to vote and participate in government dipped to half. With its chaotic torpor and dual power structure, the situation becomes



ripe for a coup d'état by an organized minority that knows what it wants. In England, the New Model Army was in 1649 no more than about 1 per cent of the population, as was the Communist party in Russia. In France, the Jacobins made up about 2 per cent of the population; in America, which had no real period of terror,

dictatorship and restoration, the revolution was engineered by about 10 per cent of the population. The coup d'état which results in a takeover by the organized elite is as easy as the spontaneous start of the revolution; power has already eroded.

But perhaps the greatest *internal* factor in the reign of terror and elite party dictatorship is the philosophy of power which everyone starts to believe in at this stage. Because participatory democracy is very difficult to maintain and demands great effort and experience, many lose interest in it and thereby turn politics over to the specialists and elitists. Only the ancient Greeks fully realized that an open and creative politics demands participation, and even the Greeks were not up to this effort for very long. As a result of this loss of effort and other mounting problems, the vanguard party takes politics into its own hands and tries to legislate social change as well as public virtues. In Nietzschean fashion they point a gun barrel at the people's head and say: "We demand that you be free and happy," etc. The paradox is exactly that which faced the previous regime that has now been overthrown: a minority group has become the guardian of the people's will and of that other fiction, the nation's will. This was as true of the old liberal regimes as it became true of such elite governments as the Jacobins or Bolsheviks. And in a sense the paradox was self-justifying and perpetuating, for it had a mad circular logic. The guardian elite interprets the people's will as "what would be good for them if they only knew." Of course, the people don't know what is good for them and therefore must all suffer disastrous consequences in order for their hidden will to be carried out by the guardian elite. As Trotsky said in the true "double-think" fashion satirized by George Orwell: "The Bolsheviks saw it as their mission to stand at the head of this (Russian) people. *Those against the insurrection were 'everybody'—except the Bolsheviks. But the Bolsheviks were the people.*"<sup>8</sup> This piece of black humor is hardly the monopoly of the Bolsheviks. All governments based on the funneling of power through representative guardians have the same problem. But since the Marxist-Leninist philosophy deals with it directly, it is convenient to analyze the paradox in terms of their doctrine.

8 Quoted from Brinton, *Anatomy of Revolution*, p. 151.

Marx and Engels, in answer to the Anarchists in 1873, insisted on the necessity for organized violence and terror in overthrowing the old, bourgeois regime. The vanguard party, the Dictatorship of the Proletariat, would decide in the people's interest how this violence was to be used. The Communists agreed with the Anarchists that at some unspecified future, state power and violence should "wither away." However, elitist violence was indeed necessary for the revolution itself. Engels asked the Anarchists:

Have these gentlemen ever seen a revolution? A revolution is certainly the most authoritarian thing there is; it is an act whereby one part of the population imposes its will upon the other part by means of rifles, bayonets and cannon, all of which are highly authoritarian means. And the victorious party must maintain its rule by means of the terror which its arms inspire in the reactionaries.<sup>9</sup>

What this terror amounted to in the case of the Russian Revolution is only becoming clear today. First of all, the "Soviets" and workers' councils, the initial and most popular organs of the revolution, were suppressed and turned into subservient agents of the Bolshevik dictatorship. Secondly, the most heroic Soviet made up of the Kronstadt sailors, who had played a major role in the 1917 victory, was crushed when it insisted only on freedom and the initial demands for which the revolution had been fought. "We will shoot you down like pheasants," said Trotsky and Lenin in the true style of the liberal guardian. And they did shoot them down. However the most systematic application of the "people's will" was carried out by Stalin, who managed to kill twenty million over his long reign of virtue. One and a half million Bolsheviks were themselves killed during the purges in the most extreme example of circular logic: everybody must perish in order that their true interest, as interpreted by the surviving trustees, may be carried through.

"The revolution is devouring her children" was the plaintive cliché coined during the French Reign of Terror, but it may be said to lurk inevitably in a revolution where a certain group

9 Quoted from Lenin, *The State and Revolution* (1917), p. 58. Moscow, 1969.

claims to hold the truth within itself. When there is no court of appeal higher than a revolutionary party, a "counter-revolutionary" can always be explained any way it likes. When there is no concept of truth which transcends men and no framework for discovering and upholding it, then with inexorable logic that society will turn in on itself and hunt for scapegoats on whom to pin some blame. No one is safe because justice has become another agency of the state, and social expectations, once unleashed, press on with a voracious appetite. After a while, quite naturally, the reign of terror gives way to the "Thermidorean" reaction, the fifth stage of revolution, when a strong man such as Napoleon, Cromwell or Stalin tries to reintroduce stability through force. Then even what is left of the vanguard party starts to prefer security, peace and pleasure to the terror of virtue.

### Self-directing groups

The Anarchists were one of the few groups to criticize the Marxists for their emphasis on state power and violence. When Marx and Bakunin split in 1870, and the working class movement with them, Bakunin formulated a series of predictions which have since come true:

According to the theory of Mr. Marx, the people not only must not destroy (the state) but must strengthen it and place it at the complete disposal of their benefactors, guardians and teachers—the leaders of the Communist party, namely Mr. Marx and his friends, who will proceed to liberate (mankind) in their own way. They will concentrate the reins of government in a strong hand, because the ignorant people require an exceedingly firm guardianship; they will establish a single state bank . . . and then divide the masses into two armies—industrial and agricultural—under the direct command of the state engineers, who will constitute a new privileged scientific-political state.<sup>10</sup>

This turned out to be as good a prediction for "post-industrial" society in America as it was for Marxist Russia, because in both cases the concept of a guardianship was tied to the new

scientific elite and managerial class. Bakunin further described the state socialism of the "red bureaucracy" as "the most vile and terrible lie that our century has created"—a century before it was in fact created. Bakunin could be so unfortunately correct in his predictions because he saw that political freedom must be open to everybody without restriction, and its limits must come from within the laws of human nature and not from the imposition of some guardian determining how much one can have at each point in history.

Like Kant and Rousseau before him and Cohn-Bendit and Noam Chomsky after him, Bakunin grasped that "freedom is the precondition of acquiring the maturity for freedom, not a gift to be granted when such maturity is achieved" (Chomsky's words).<sup>11</sup> As Rosa Luxemburg pointed out in her critique of the Bolsheviks, the workers must liberate themselves (101) and

10 Quoted from Noam Chomsky, *American Power and the New Mandarins*, p. 73. New York, 1969.

11 Noam Chomsky, "Notes on Anarchism," *New York Review of Books*, May 21, 1970, p. 32.

(101) *Workers at the ad hoc barricades during the 1871 Paris Commune (Port St. Denis)*







(102) *Ad hoc* participatory democracy outside the Palais-Royal, 1790. Such sidewalk forums occurred daily and lasted for hours of heated discussion open to everyone

be allowed to make mistakes or else they would never have the maturity to use their freedom on the outside chance that the state would wither away. Contrary to Nietzsche, the essential quality of freedom is that it cannot be imposed.

A related truth which the Anarchists have also insisted upon against the Marxists is that the reliance on violence and force must lead to the syndrome of violence and a continuous chain of brutal actions. It is in the nature of the case that violence perpetuates itself in a dialectic that is just as binding and inexorable as the class struggle.

Yet if we are to take the Marx and Engels view of revolution as at all legitimate, then we are back in the Nietzschean paradox, because if revolution is "the most authoritarian thing there is," then "terror" is a necessary means for liberation. But notice: Engels defines revolution as the movement from what we have described as the third stage to the fourth—"an act whereby one part of the population imposes its will upon the other part by means of rifles," etc. In other words, revolution for him is already the coup d'état, the seizure of power by the minority group. Instead of recognizing revolutions for what they are up to this point—made up largely of non-violent, self-organizing groups from the whole population—he sees them already as Bolshevik revolutions of power politics. But in

fact popular revolutions up to the third stage are not primarily this at all. Rather they are spontaneous affairs whose first desired goal is freedom (this seems true without exception). Secondly, at the beginning they are run by the plurality of groups corresponding to the plurality of existing discontent, and they culminate in the councils, communes, soviets or *Räte* which have always emerged in these upheavals. These *ad hoc*, self-directing groups emerged in England in 1650, America in 1776, Russia in 1905 and 1917, Germany in 1918, Spain in 1937, Hungary in 1956, and Paris in 1792, 1830, 1848, 1871, 1968.

The professional revolutionists' attitude towards these *ad hoc* groups has been utterly schizophrenic. Jefferson, Robespierre and Lenin all celebrated them as the institutions of freedom and the essence of politics. Lenin triumphed with the slogan "All power to the Soviets," and when asked later what the essence of the revolution was, replied, "Electrification plus the Soviets." For Robespierre the clubs and societies were "the true pillars of the constitution" where "the conquest and conservation of freedom" was actualized; among the crimes against the revolution "the greatest was the persecution of the societies."<sup>12</sup> Jefferson said countless times that a republic or federation made up from these groups was "the only form of government which

12 Arendt, *On Revolution*, p. 243.



(103) *May events, France 1968.* Self-organizing group at the Sorbonne showing the enormous appetite for debate and for forming opinion

is not eternally at open or secret war with the rights of mankind." But of the three, Jefferson was the only one who did not contradict his former statements once he came to power by setting out to suppress the groups that had brought him there. One reason leaders turned on these groups is that revolutionary tradition (except partially that of the Anarchists) has never acknowledged their prime importance. Even Marx, who at times regarded the 1871 Paris Commune as *the* type of working class, democratic institution of the future, came to see it as only a transition on the way towards the dictatorship of the proletariat. Thus a reason these groups always failed is that the prevailing revolutionary philosophy and its adherents made sure that they did. The Communist crushing of the Kronstadt Soviet in 1917 was completely in keeping with its suppression of the Anarchist Makhno movement in 1921 and the Spanish Anarchists later on in 1937.

What are the positive virtues of these basic institutions of freedom? Above all they are small and active enough to allow everyone to engage in primary activities of politics—"expressing, discussing and deciding." In Hannah Arendt's terms, they provide a form of public theater where liberty can emerge for everyone, not just the representatives of everyone. As opposed to the party system, which shrinks the space of freedom to the size of a congress or parliament,

they spread freedom to the whole country at least as it existed previously—partially—in the American "townships" and medieval villages.

In the French Revolution of 1789, Paris spontaneously divided itself into forty-eight sections or functional groups constituting the Paris Commune. These groups did not originate in order to send representatives to the official National Assembly, but rather, like the spontaneously formed clubs and societies, to become self-organizing agencies in control of their own destiny. To Robespierre in 1791, these groups were the creators of the public spirit and its foundation the revolutionary spirit (102).

The "May Events" in France of 1968 mark the re-emergence of these self-governing groups. According to Daniel Cohn-Bendit, one of the "non-leaders" of this first stage revolution, there were four hundred and sixty Action Committees in Paris. They usually met once a day at a fixed time and place and were open to everyone. Their primary functions were to form opinion, disseminate information (most notably through the "wall newspapers"), collect and distribute food, and coordinate with the federal body, the Paris Action Committee. However Cohn-Bendit and other non-leaders insisted on two points: they refused to allow this coordination to degenerate into political control from above, and they refused to be swayed by previous revolutionary theory—above all by the Marxist emphasis on the vanguard, elite party. Thus these committees were flexible and re-





(104) *Woodstock, 1969*. Subsystems converging and disappearing over a long weekend. *Time* magazine commented: "Youth's sense of community is an *ad hoc* thing; it is suspicious of institutions and wary of organization, prizing freedom above the system." But the "freedom" alluded to here was the liberty of self-expression and not the political freedom of self-government

sponsive to immediate needs. Their very power and spirit came from fulfilling their changing purposes at once, *ad hoc*.

The organization of the local Action Committees did not precede the events but followed them step by step. New forms were evolved as we went along and as we found the old forms inadequate and paralyzing. Organization is not an end in itself, but an evolving means of coping with specific situations. . . . [The Action Committees] were born for the purpose of solving concrete common problems and sharing life in battle, rendering aid to the strikers, and helping wherever help was most needed.<sup>13</sup>

One is reminded of the way specific disasters can throw people who are normally at odds into a common and fraternal endeavor. A shipwreck, a hijacking, an earthquake, the sight of Parisian police, dressed in black armor belting down innocent bystanders. A disaster, like the collapse of governmental power, catalyzes diverse people into a new form of fellowship and mutual aid. For Cohn-Bendit as for so many who have glimpsed the positive stage of revolution, the lesson of the self-governing group was clear:

"Democracy sprang from discussion of our immediate needs and the exigencies of the situation which demanded action." (103)

The fact that "immediate needs" and "direct action" lead to a form of organization, rather than a prior theory or a vanguard party has always appeared something of a failing to professional revolutionists. Yet it is no more surprising than the fact that friendships are formed daily *ad hoc* without specifying the qualities of a good friend in advance. In fact the institution of friendship bears the same relation to functional or bureaucratic types of human relations as the councils bear to representative government: quick, flexible and enjoyable rather than slow, inefficient and obligatory. In the Hungarian Revolution of 1956, the lines along which these councils grew were based on a mixture of common interest, work and place of location. Thus there were artists', workers', students' and even civil servants' councils as well as neighborhood councils. Once again they appeared spontaneously—that is to say, in spite of conscious theory and intention.

If one looks around for other examples of such self-organizing groups functioning within normal society, one finds all the same active qualities but without any public realm or political space for freedom to emerge. Thus rock festivals such as the one at Woodstock (104) allow

13 Gabriel and Daniel Cohn-Bendit, *Obsolete Communism: The Left-Wing Alternative*, p. 79. London, 1969.



spontaneous expression and pluralism, but they do not offer meaningful public discussion and the formation of political opinion. The same is true of the countless clubs, societies and business groups that form the background dynamic to any city. Or, by contrast, the various communes such as Drop City, the self-organizing squatter communities in Peru, or the remaining scraps of township and local government, or for that matter Speakers' Corner at Hyde Park in London—all these *ad hoc* institutions promote political discussion and diverse opinion, but they are impotent with respect to the larger society and hence are not effectively self-governing.

Indeed, future prospects for an effective form of self-government depend on several rather radical things happening. At the very least, there will have to be a change in revolutionary theory away from the emphasis on violence, the coup d'état and rule by elite party towards an emphasis on the peaceful, decentralized and pluralist nature of popular revolutions. The positive part, the third stage, will have to receive at last the understanding and credit it deserves, so that this stage is not once again overturned through ignorance, indifference or misunderstanding.

Assuming that there is a popular revolution, the next prerequisite is for a transitional form of government which preserves the councils, or *ad hoc* groups, where they do exist and keeps power from being centralized in a small party or bureaucratic elite. From a theoretical angle this problem is not insuperable. Countless political theorists have shown the means for preserving decentralized power: a federation of equal bodies which delegate power to representatives who can in turn be immediately recalled. Beyond this federation, such familiar safeguards as the separation of executive and legal power, the various "freedoms" (speech, assembly, writing) have to be built into a constitution, as well as the institutionalization of frequent meetings by the *ad hoc* groups. Full participatory democracy will not exist unless a great energy and patience are expended, as the Greeks on occasion were willing to do. Yet even with these efforts and safeguards some practical problems remain unanswered. How does a transitional power structure keep from becoming centralized as it wards off the attempts of minorities to seize power? How can the means of production be socialized without creating a bureaucratic

elite? No doubt the federation of councils could not exist for long without socialized capital since an economic imbalance would lead to a political one. While one cannot see any easy answers to these two outstanding questions, one can at least specify that the desirable goal to be achieved is the federation of spontaneously forming *ad hoc* groups. As Thomas Jefferson said about the federation of "wards": "The wit of man cannot devise a more solid basis for a free, durable, and well-administered republic."

(105) A *Bowri*, an *ad hoc* structure invented anew many times and in many different places





**ADHOCISM**

**PART TWO**





# 1 Modes and Resources of Adhocism

## What adhocism may be

As soon as one sees that there can be an actual policy of contingent, resourceful action, or adhocism, as Jencks and I call it, this mongrel creativity suddenly appears everywhere. Discovering adhocism is *ad hoc*, and everyone knows all about it. "It's what people do all the time," according to an editor, or it's "satisfyingly familiar" as one architect said, but unexamined, unexpressed, a basis of most human behavior: "you work with what you have," as a painter put it.

Jencks has shown the omnipresence of adhocism. I will go on to the swarm of particular questions which arise when one accepts that many human actions have this quality in common. Why are people attracted by *ad hoc* solutions? Is adhocism one concept, or a few related ones, or an excuse for second-best, lacking concepts at all? What are its consequences? Most important, how does it work in real life? Some of the answers I find are similar to Jencks's arguments, some contradict them, and others betray our mutual preoccupation—characteristic of the notion—with the outcome of *ad hoc* actions. If one sees the general principle, the next stage is to understand just what adhocism commits oneself to and what variety it has.

At first, without theorizing, one can be drawn to adhocism for many reasons: perhaps only for the opportunities offered by flexible, contingent responses to life experiences (as in sexual freedom); for the realization that approximate means may fully satisfy a purpose (using a ruler as a shoehorn); for the creative advantages of linking familiar elements that modify and change each other until the result is an innovative whole (assembling the features on a snowman); or even through laziness—avoiding the difficulty of seeking ideal methods and making long-range plans.

But these encouragements suggest even broader possibilities for adhocism. The concept of adhocism implies improving rather than replac-



(107, 108, 109, 110) A post office recruiting poster, two subway ads in New York and a sign on a door in London—each critically modified *ad hoc*

ing, including rather than excluding. Thus English common law is an example of contingent needs over a period of time that produced an overwhelming agglomeration of initially *ad hoc* dispensations. If sensitive and undogmatic justice now accompanies the unmerciful complexity, the process has had its rewards. We shouldn't be afraid to appreciate that several parts create a richer whole, whether the parts are left in or deliberately added. So with a painter, dramatic involvement with actual available resources or circumstances may strengthen



1. context, purpose
2. the notion of adding-on; assembly (or sometimes improvisation)
  - a. recognition
  - b. plurality (synergism)
  - c. (occasionally) articulation (a visible knuckle or joint)
3. the facts of availability (good shopping)
  - a. (sometimes) chance (serendipity)
  - b. (sometimes) approximation
  - c. fragments (pieces as parts)
  - d. time/money constraints

(111) In all fields of design, a deliberate adhocist might be identified by the degree to which his work had these attributes

both his product and his ideas. And everyone has seen advertising posters where a scrawled, added message changes the meaning of the poster entirely. Suddenly the poster presents a dialectic instead of merely an assertion, which is typical when fresh elements are added *ad hoc* (107, 108, 109, 110).

Adhocism's role in art is great and still growing. Since adhocism encounters phenomena directly, often sidestepping overloaded, more usual and perhaps trite associations, it matches a preoccupation of many modern artists. Plainer forms are being introduced that were previously beneath notice or out of bounds. In poetry, William Carlos Williams expressed his mistrust of trite symbolism in *Paterson* as "no truth but in things." Claes Oldenburg speaks of giving "the object back its power when our vision is clouded by bourgeois values and by removal from an actual functional situation." He thinks that a store would be a better place than a museum for objects worth cherishing and displaying,<sup>1</sup> implying that values could then be transacted, rather than imposed. Ultimately, such distrust of metaphorical value may serve only to uncover a broader kind of metaphor in objects, but at least it can do that: it can help find meanings that are deeper and richer than exist in exhausted formal symbolism.

In technology, inadequacy, not necessity, is the mother of invention. We often have a sense of what's missing long before we know what we want. The imagination feeds upon available material. The words extrapolation, interpolation

1 Claes Oldenburg, *Store Days*. New York, 1967.



(112) Jam factory workers and their improvised armored car, England, 1939



(113) Children with an improvised cart, London, 1954

and optimization refer to the extending, narrowing or balancing of existing means, thereby producing new solutions deriving from, or improving upon, things that already exist. As long as a discovery is the result of any of these principles, it must at least be partly *ad hoc*. For example, Stuart Macrae, the inventor of the Limpet mine and other British dirty tricks used in World War II, tells about the development of his mine, tracing it from *ad hoc* components to a final design manufactured *de novo*. He and C. V. Clarke built prototypes of the device in 1939 on a home workbench out of tin bowls from Woolworth's and magnets from a hardware store. They filled the bowls with porridge to test buoyancy in a bathtub. A simple detonator was to consist of a spring-loaded striker maintained in a cocked position by a pellet which would dissolve in water, but the inventors and expert chemists were unable to devise anything that worked with invariable timing. One day, Stuart Macrae says, they ate some sticky aniseed candy balls, "and knew we had found the answer." Macrae and Clarke bought up all the aniseed balls in Bedford, and Macrae accurately drilled holes in them. He goes on:

Eventually we acquired our supplies from Barratts, the confectionery manufacturers, who were able to explain why their product performed in such a highly satisfactory manner. It is a precision job, made by dipping a core into vats containing sweetened liquid a specified number of times and for

specified periods. The result is that nothing can be more alike than two aniseed balls . . .

The aniseed ball had of course to be protected until the Limpet was actually placed on its target. So what we needed was a closed rubber sleeve of some sort which could be pushed over the tube to seal it and be easily whipped off by the Limpeteer when the time came.

Again the local shops were able to meet the requirement. We went round to the chemists, buying up all their stocks of a certain commodity and earning ourselves an undeserved reputation for being sexual athletes.

Many thousands of Limpet mines were made exactly this way: out of Woolworth bowls, aniseed balls and rubber contraceptives, until they were "improved" three years later:

To be honest, the refined model worked no better than its primitive predecessor, and oddly enough it never seemed to take on so well with the operators. Maybe this was because it was too refined.<sup>2</sup>

In this account, Macrae's proud emphasis upon the adhocism of his inventions is as interesting

2 Stuart Macrae, *Winston Churchill's Toyshop*. London, 1971.

as the inventions themselves. His later Fluvial mine, or W Bomb, a river detonator, had to parachute down, sink, separate from the chute and drogue, float below the surface, and finally explode, or sink if it found no target. This was another complex of adhocery, using Alka-Seltzer tablets for the required dissolving pellets. Macrae says, "they were standardised for the W Bomb and nothing better was ever found."

### Context

It's a truism that everything is relative, and the force of adhocism too depends on the larger context in which it is found. Behind all actions lies a complex of premeditations, ranging from those relatively fixed or useful over a period of time (working theories, overall principles, ruling plans) to others more variable and affected by the immediate event (contingent reactions, piecemeal decisions, corrections, improvisation). As man learns, he relies more and more on patterns that have proved useful, until a sense of order understandably becomes the norm and improvisations seem the exception. Whether he notices the exception is a relative matter.

First, action which taken alone would not appear *ad hoc* can suddenly stand out because of more thorough integration and pre-planning elsewhere. NASA's proposed orbital station built bit-by-bit might be described as adhocist, but only in context with other, more unified NASA



(114, 115, 116) C. F. Ribart's *Triumphal Elephant*, Paris, 1798; George Barris's *Bob Hope Golf Cart*, Los Angeles, 1970; and Gerald Scarfe's *Chair Man Mao*, London, 1971 are examples of mimetic adhocism







(117, 118) A 1969 Berkeley campus demonstration included detachments of self-designated attendants for first aid (wearing white coat, red cross on hard hat) and for decorum (wearing badges marked "legal observer" with a large eye)

programs. This points to the general conclusion that, at its most characteristic, adhocism is the informal course taken within a stricter system (except when it is adopted as an artistic end in itself). By definition, an *ad hoc* procedure is adopted when *pro forma* procedures will no longer do. A difference between adhocism and something stricter, ordered "better" or "purer," though it may not be obvious, is usually there.

Then, use of the word itself has only relative merit. Adhocism, like any other kind of conceptual explanation, might be put aside for more adequate explanations. Discovering some adhocism in the context of creative exploration, for instance, wouldn't usually be surprising. Whether application of the word is "right" or "wrong" is less to the point than whether it is better or worse compared to other generalizations. Whatever virtue is to come from applying a new word to familiar matters can only come if it produces fresh awareness, and fresh methods.

Distinguishing adhocism from related kinds of action can be difficult, but as a reward one starts to become aware of the frequently wide gap between aspirations and procedures, to appreciate the real process of making ideas work, and to understand how to set up more productive future actions. Two rather different modes of adhoc-



ism often appear. For a working distinction, one can consider both procedure and aspirations. If procedure consists of using resources, material and human, that are available or immediately to hand, this alone could define the action as an example of *practical* adhocism. If aspirations are directed towards ends that are ambiguous, not fully conclusive, plural, imperfect, or sometimes unknown, this alone could define the action as an example of *intentional* adhocism. More simply, practical adhocism refers to *ad hoc* means; intentional adhocism refers to *ad hoc* ends. If both qualities are present together the activity can be called fully adhocist.

Distinctions drawn along other lines depend upon context; there might be conscious and unconscious adhocism; innocent and sophisticated adhocism; mimetic, metaphoric and phenomenal adhocism; and also, through critical interpretation, adhocist results from non-adhocist actions, as well as the reverse.

### Practical adhocism

By bringing together various, immediately-to-hand resources in an effort to satisfy a particular need, adhocism may satisfy the specific problem with a juxtaposition of part-solutions.<sup>3</sup> For example, it might be necessary to

3 Practical adhocism is usually "pragmatic" in the common sense of the word (useful, expeditious). It does not however need to entail the analytic and anti-metaphysical position of the philosophic Pragmatists.



(119, 120, 121) In *practical* adhocism, the end is often fixed, and contingent means are used to reach it. Casablanca shantytown, 1954

solve a problem without the usual materials or experts. Often an impromptu combination including “unnecessary” ingredients, or leaving over waste can fulfill the need more economically than having to wait for the usual supplies. In place of experts, an emergency team, *ad hoc* committee, or volunteer brigade can do the work instead—sometimes using bizarre methods that notoriously prove a lesson later to those with special skill or training (117, 118).

To get things done by hook or by crook may require more resources than “usual.” Materials





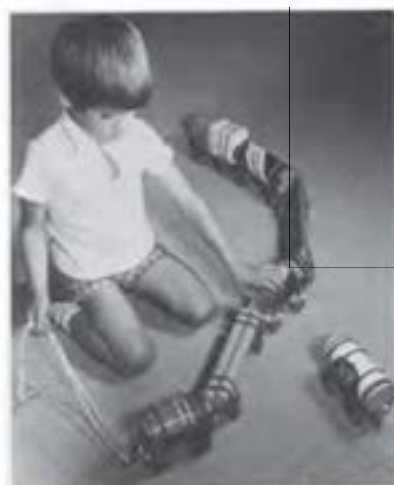


(122) Sometimes in practical adhocism the gesture of using contingent means is what is most important

#### Big-Buffer Roll-about

Code SW-558

A used 24" motor car tire mounted on half-bearing cones. Steerable with a touch of foot. Fits in small space. The tire insulates from shock full circle. Useful for point-to-point racing. A new rope is also included and safety hand-grip.



may have to be combined, selected or dissected; people may have to be recruited and tried out in new roles. Also they may have to be allowed initial mistakes, which perhaps can be justified by their enthusiasm and potential development of fresh methods.

Rapunzel's hair became an *ad hoc* ladder, but practical adhocism need not occur as a response only to such unusual crises or shortages. In public affairs, fragmentary contributions from many people organized *ad hoc* may be a special advantage, as on a jury, or may be especially unwelcome because uncontrollable, as in questions from small shareholders at a corporation's annual meeting. In painting, a saint can be ornamented with a halo of applied gold; or the still more *ad hoc* use of fingerprints, footprints, cloth or a lawn mower<sup>4</sup> stuck on a recalcitrant canvas can liberate the artwork's form by providing a means or excuse for suspending formal inhibitions.

Practical adhocism need not neglect the long-term economical use of resources in order to be called adhocist. On the contrary, a type of action that can be called *retrieval* adhocism is preoccupied with "recycling" materials or finding new uses for leftovers (123, 124, 125). (Retrieval adhocism also relates to intentions—see below.)

4 Jim Dine has stuck a lawn mower to a canvas.

(123, 124, 125) A salvaged tire advertised in a toy catalogue, another toy that turns anything handy into a train and seats made of beer cans (by Douglas Deeds, San Diego) are all demonstrations of *retrieval* adhocism.





### Intentional adhocracy

Interest in *ad hoc* goals or ends rather than in *ad hoc* procedures or means is the sign of intentional adhocracy. Jencks argues that adhocracy ought to be considered as definitely teleological in nature (directed at ends), and this is a necessary clarification of the concept, provided one takes into account that adhocracy goals are themselves often "open-ended" and sometimes deliberately unexpected. Columbus was a practicing intentional adhocracy because he knew he'd find *something*, if not necessarily India. Aesthetic intentions too may involve "being an adhocracy," for the discoveries involved in its practice. Where several stages of results are expected, a few promising initial results typically encourage more adhocracy *post hoc* as an ongoing method, and it could wind up that "anything goes" as the designer or product developer continues in an open, general, flexible, loose, inclusive method. Many industrial research and development departments have learned to take up studies in a serendipitous, *ad hoc*, undirected manner, to their backers' somewhat surprised eventual gain. Intentional adhocracy therefore has a quality of freedom because of its liberation from the usual commitment to restricted results (126, 127).

Though the initial results of intentional adhocracy perhaps typically encourage further use of adhocracy as a method, a principle of diminishing returns and self-annihilation is at work too, as described earlier by Jencks. As the procedure succeeds it may become institutional, bureaucratic, orthodox, perfectionist, hidebound—thus, really, no longer *ad hoc*. Of course the change of intent from adhocracy goals to more limited or specific goals may be beneficial and necessary. A book or bicycle manufacturer might quite sensibly have specific ends in mind (turning out books or bicycles) which are the opposite of adhocracy intentions.

Retrieval adhocracy fits in the framework of intentional adhocracy where it seeks some appearance of economy as an *end*, actually sometimes as an end in itself no matter what (tidy-mindedness). Or, external necessity may force retrieval adhocracy into this context; for example, the need to deal with garbage may lead to the collection of compost that turns out to



(126, 127) *Intentional adhocracy* occurs when the most striking feature of a product or an experience is an *ad hoc* attitude towards goals. A fixed, routine form can be "customized," "personalized" or made flexible

have market value. Related to intentions, retrieval adhocracy says, "This (old car tire, tin-foil, seashell) must be good for *something*."

### Contrasts

The definitive opposite of practical adhocracy is purism. A committed adhocracy supposes that while things perhaps might be *perfect*, what



(128) Joseph Poelaert's Palace of Justice in Brussels (1866–83) is a true *eclectic* building, combining Eastern and classical stylistic elements deliberately to achieve formal harmony, not contradiction

he seeks will be the *optimum*. This doesn't necessarily mean that an adhocist would reject high refinement. But high refinement usually suggests great patience and dissatisfaction with "compromises." An adhocist is by definition impatient and perhaps compromising. Yet he is also "optimistic"; that is, anticipating optimum results for his pains. Though refinement can be a deliberate goal in adhocism, when it appears to have great importance in a particular scheme it probably springs from the opposite presupposition—that in order to create the perfect quintessential doorknob, one must reject the contaminating influence of all previous doorknobs. It springs from purism, in other words.

The definitive opposite of intentional adhocism is fatalism, or determinism; as in the system of Astrology, for example, or Bacon's "Natural Law." The adhocist would more typically suppose that there are competing, equal realities, that consequences are not preordained, and that at worst inevitability can apply only to a range of possibilities rather than to any particular one. Actions of change like a secret revealed or a letter put in a mailbox are of course irreversible, whether or not one is a determinist. But though causality must always play a role, the course of events that leads one through a series of *multiple* possibilities is the only "determinism" adhocism considers seriously. Inertia is adhocist, but fate is not.

Adhocism is not the same as eclecticism.<sup>5</sup> Its main difference from eclecticism lies in intentions. Since adhocist thinking does not care about perfection when trying to achieve an optimum, it chooses the available components to achieve the optimum whole; eclectic thinking would choose only the best components to attempt a perfect whole. In designing objects, a practical difference emerges too. An adhocist would mainly seek to re-use available parts, an eclectic would combine admired copies (128).

An adhocist doesn't necessarily care to achieve an integrated whole (a *Gestalt*); an eclectic does. As time goes on, though, even the most fragmented conglomeration may be viewed as a *Gestalt*, since the conception of parts as an integrated whole is a virtually unstoppable psychological phenomenon. Strictly speaking, eclecticism is a *limited form* of adhocism.

### Working propositions

Some secondary qualities and characteristics of adhocist actions are often distinguishable along

5 Eclecticism as a philosophical concept originated in France in the 1830s, describing a system of thought composed of elements selected from other systems. The idea was internationally adapted to architecture in the belief that a rational selection of the best historical forms could be assembled to create a new building which would be appropriate for modern use.

with the primary qualities of speed and purpose. Sometimes they offer their own flavor like surprise ingredients in a stew.

Adhocracy encourages simultaneous appreciation of form and function, while keeping them recognizably separate aspects of the situation (a typed letter with words crossed out and others written in). "It looks like . . . smells like . . . feels like . . . reminds me of . . . this—" But it does *that*. (A train put together in a freight yard can be seen as a whole, and as made up of diversely functioning freight cars.) Even when adhocracy is only directed intentionally, towards *ad hoc* ends, the process might show in a lack of hierarchical administration or the presence of particular initiative.

An adhocratic construction—or sometimes, procedure—might be emphatically articulate, with connections between improvised parts highly visible and apparent. But more characteristically, "the joint" as a third, connecting thing is only a preoccupation of purists who are afraid

to run different things together. Adhocrats might prefer, or need, to do without the cover strip between different materials, or the office memo directing a fresh approach.

Adhocracy rarely presents anything new in the sense of a discovery. Since the purpose is to help solve a problem, or to change contexts and make it a non-problem, adhocracy need not call attention to itself. However, while novelty may be absent in the form of new or original products, it is characteristic in improvised methods.

Adhocracy in its fullest sense is able to contain its opposites, since impurity is always a greater whole than purity. An adhocratic can select purism as a programmatic part of his design, or determine the outcome in advance, or try to achieve an integrated whole, as long as these are parts of even broader or more amorphous intentions. Swollen to this extreme, adhocracy might well seem a catch-all theory, but that is because fundamentally it has to do with the nature of order, and hierarchical order dictates

(129) The most characteristic practical adhocratic objects are made up of parts which are neither packaged nor articulated, but grafted

A PACKAGE	ARTICULATED PARTS	GRAFTED PARTS
Easel painting in frame hung against wall	Bas-relief set in wall	Fresco on plaster wall
Toga or kaftan	Attention to seams on fitted suit	Patchwork quilt, clothes made of different colors or materials sewn together
CBS building, New York (seems to stand free of rest of city block)	Seagram building, New York (articulated away from rest of city block by low wings)	Typical shops and houses on city street, all run together
Four tomatoes in a cellophane box	Ingredients of a salad arranged in individual piles	A salad
A PACKAGE is so relatively puristic that it doesn't even take its essential form from its contents or the requirements of its setting, it stands alone—it might only be "cartoned" with other, similar packages. ARTICULATED PARTS express connections as an obvious link between A and B: a knuckle, a third thing that spaces and separates—this can be quasi-puristic or equivocally adhocratic. GRAFTED PARTS are adhocratic. They are run together: AB, not Ab or A&B.		





(130) Adhocist multi-use becomes orthodox. Sheraton table/library steps, ca. 1795

the invariably subordinate place of pure simplicities. Adhocism and purism both seem feeble when contrasting qualities aren't in the background for comparison. But while adhocism can contain all its contrasts and opposites, the reverse isn't true. An architect who designed a purely custom-made house with special details throughout—but included, say, one antique chair, and a bathroom ceiling made from inverted milk crates—might be justified in calling himself an adhocist, since adhocism is contextual and relativistic (130).

### The disrepute of adhocism

The "objections" to adhocism mentioned by Jencks are deeply entrenched in life and thought. In ordinary use, *ad hoc* often means "expedient," as in the "*ad hoc* law" legislated on the spot when a policeman takes bribes, lets off criminals, or personally wipes out drug addicts. It sometimes means "of dubious authority, significance, or influence":

... I would like to point out that the S.R.C. [Student Representative Council] is recognized by Congregation [of Oxford] as the official representative body of Junior Members and as such it has rights of representation on several University Committees. It is not, I can assure you, an *ad hoc* organization of long haired radical students.<sup>6</sup>

6 Letter to *The Times* of London, 19 November 1970.

Or it is sometimes used to mean "imperfect, without a principled basis or logical consistency":

... Problems such as these [caused by the vagaries of decimal rules for entry in library catalogues] often led to the growth of a body of glosses or *ad hoc* decisions varying from one library to another ... and this case-by-case approach to the development of rules tended to obscure underlying principles ...<sup>7</sup>

(In addition to the use of *ad hoc*, it is interesting to see that the author thinks a library rule is a principle, while *ad hoc* rules are not.)

"Adhocism denies imagination," a romantic might say. A classicist would object, "But you need a plan, a generating order, to be able to build something. Without an ideal whole you have compromised your potential accomplishment before you start." This is similar in principled purism to a Socialist objection: "adhocism is just another name for laissez-faire." As a counter to most such objections, the argument is that—as in any other system or operation—the same activity can be valued favorably or unfavorably, depending upon the viewer and the context:

"BAD" ADHOCISM	"GOOD" ADHOCISM
Laissez-faire capitalism	Small political groups forming for specific purposes
Plagiarism	T. S. Eliot: a bad poet borrows, a good poet steals ... Eclecticism
Pastiche (131?)	Parody (131)
Chaos	Individual orders
Cheap substitute	Bargain hunt
Desecration	Renovation
License	Liberty
Etc.	

Specious attacks on *ad hoc* methods mustn't be allowed to conceal some of the genuine drawbacks of adhocism, however. Robert Boguslaw,

7 C. Sumner Spalding, ed., *U. S. Library of Congress Cataloguing Rules*. London, 1967.



(131) An entry in *Your Worst Work*, a joke competition held by the Architectural League of New York, 1969. The entrant, Der Scutt, AIA, considered this adhocratic pastiche to be his "worst work" because it "is expressive of the archaic zoning laws we deal with and common taste of the average speculative builder"

a sociologist and systems analyst, offers one of the very few explicit discussions of the *ad hoc* as a decided technique.<sup>8</sup> He contrasts the *ad hoc* "system" with other design "systems" that are based on models, "principles" and "operating units," and finds an *ad hoc* approach sometimes useful in providing practical interim methods and attitudes; but he thinks its unpredictability,

<sup>8</sup> Robert Boguslaw, *The New Utopians: A Study of System Design and Social Change*. Englewood Cliffs, N.J., 1965.

weakness under pressure, confusion of temporary and permanent solutions and reliance upon contemporary concepts and technology make it a generally inadequate technique for social evolution.

I think that Boguslaw's view of *ad hoc* methods as a complete system obscures adhocracy's persistent importance as an unsystematic, partial, piecemeal or hybrid mode, including, for example, successful innovation through the *ad hoc* reintegration of parts. Far from being "unprincipled," adhocracy has a plain principle (of speed or economy plus purpose or utility). One might call it an advantageous method precisely *because* it seeks solutions from among actually available, proven resources. But many of Boguslaw's strictures hold when an *ad hoc* method is used blindly, or is unwisely risked within an obdurate larger system. For example, the *ad hoc* experiments of an innovative teacher can fail in an entrenched educational system. As usual, in deciding what are advantages and what are disadvantages, the degree of applied understanding and the context of the matter are critical.

#### Human pliancy and optimization

Before a convincing case can be argued for adhocracy's *approximate* result obtained by compromise, as against the *exact* result much more difficult to achieve, one needs to be persuaded that people are adaptable enough to be satisfied with a non-ideal. Tests of endurance and experiments in perception seem to show that while man may be the measure of all things (to men), he is an elastic ruler. When they are exploited, people can work in an amazing range of lighting conditions performing similar tasks with similar efficiency; they need water but can live without it for days; they disregard a designer's or planner's instructions about highly specialized surroundings but insist on using generalized surroundings in individual ways. There is plenty of evidence in anthropology and elsewhere about how accidental, conditional and relative all our presumably precise desires and "needs" really are. Buckminster Fuller advocates "reforming the environment instead of trying to reform man," but these are futile words. Design can change people; it only shapes things. Design at its best (or worst) precisely reforms pliant man—which is part of the process of civilization (132).





(132) Mrs. Sobey, bombed out of her house in Margate, London, at the door of her converted bus home

All this becomes an issue in much of contemporary design, where particular objects are formed to fulfill a detached notion of precise use or necessity instead of taking into consideration a compromised or optimized notion of the range of uses the objects might serve. Reyner Banham has thus criticized the purist "comfort" criterion of many modern chairs:

... even lightweight, well-designed chairs are inconvenient—because they are only designed for sitting in, and that is the very least of the things that happens to a chair. Most chairs are so little sat in that they could never justify themselves economically on that score.

Not only are they bought to be looked at as cult-objects, they are also used for propping doors open or (in French farce) shut. They are used by cats, dogs and small children for sleeping in; by adults as shoe-rests for polishing or lace-tying. They are used as stands for Karrikots and baby baths; as saw horses; as work benches for domestic trades as diverse as pea-shelling and wool winding; and as clothes hangers. If upholstered and sprung, they can be used for trampoline practice; if hard, as bongo drums. They are persistently employed as stepladders for fruit-picking, hedge-clipping, changing lamp bulbs and dusting cornices. . . . The

more a chair is anatomically well-designed for sitting in, the less use it is the other 95 per cent of the time. . . . If rational inquiry were to prevail, it would show that chairs are simply detached units of a commonwealth of horizontal surfaces on which any number of objects, including the human fundament, can be parked.<sup>9</sup>

What is true of chairs is also true of rooms, buildings, communities, towns, and all other objects and institutions designed by men. They rarely serve one purpose for which maximum accommodation ought to be provided, and even where they do, the provision for alternatives within the compass of the design might be more sensible. Their adhocist employment, or potentiality, may be the most important considerations they eventually get around to satisfying (134). And the justification for wanting cultural forms to supply a wide range of services is the same argument as Banham's criticism of the one-purpose chair. You can't drive to work in a bed (except in cartoons) but you can make love in a car. The *Sunday Times* of London even tested cars to see how well they could be used for seduction:

"We were sitting, or rather lying, in a buttercup yellow Lotus Europa. The position was frankly erotic, but we were

9 Reyner Banham, "The Chair as Art," *New Society*, 20 April 1967.



so completely divided from each other by the massive transmission tunnel that it was like being in single beds. . . . Although the front seat [of the Cadillac] would accommodate two horizontal dwarfs there is not really room enough in the car for comfortable seducing. . . ."

Finally, the Volkswagen Variant 1600. . . . As the brochure points out: "an increasing number of bachelors have discovered you don't need three children to have a Variant." . . . Here at last is the *lebensraum* seducers have been searching for.

The Variant's front seats recline to 49 positions, which is a good start, and even the doors are

provided with safety locks, and "won't fly open however hard the impact."<sup>10</sup>

The humorous tone masks a wise judgment. Whether or not the aptly named Variant is *also* the best car for driving can be a moot point; necessity often demands other *ad hoc* accommodation. Human desires are sufficiently resilient to accept results at a considerable remove from the one-purpose "best," if an overall optimum is in view.

### Approximation

An argument in favor of seeking an optimum design instead of perfection shouldn't mask the fact that approximate solutions are very often the best when requirements are multiple or complex. For example, in an architectural de-

10 Jilly Cooper, "Carma Sutra," *Sunday Times Magazine*, London, 12 October 1969.



(133) A chair no longer adequate as a seat becomes something else



(134) Tires on the Venice canals



(135) A "desert island emergency wireless set" made from "everyday components" demonstrated at the 1954 British Radio Exhibition (see also 52)

sign class one might set an identical problem (an architectural brief) to thirty students. Let us say that after detailed consultation with the design critic, six of the students produce solutions which all parties agree are equally effective designs. Each is "original" in that none resembles another; perhaps they are even remarkable solutions that are not only economical but culturally and socially impressive. In the Platonic terms of there being only one perfect solution for every problem, none of these six could be "perfect," yet one sees that such a concept is hollow, because there is no shortcoming that could sufficiently account for the great differences in form among the six remarkable solutions. None of them might be perfect, but all may be optimum, taking into account the different means and intentions of the different designers. The forms vary from each other out of proportion to their distance from perfection. By analogy, one is therefore led to the supposition that approximation can always provide an effective optimum, even in comparisons.

In his book *The Nature of Design*, David Pye defines function as "what someone has provisionally decided that a device may reasonably be expected to do at present."<sup>11</sup> By his conditional wording, he shows that the ability of devices to get results doesn't depend on assured perfection (135). In an informal talk to students of architectural design at Harvard in 1954, the American architect Philip Johnson said much the same thing:

They say a building is good architecture if it works. Of course, this is poppycock. All buildings work. This building [referring to Hunt Hall] works perfectly if I talk loud enough. The Parthenon probably worked perfectly for the ceremonies that they used it for. In other words, merely that a building works is not sufficient. You expect that it works. You expect a kitchen hot water faucet to run hot water these days. . . . There aren't any rules; there is no one to tell you whether your one choice out of, say, six billion for the proportion of a window is going to be right.<sup>12</sup>

Science has largely been spared the guilt and anxieties of not attempting perfection in a single jump. Throughout the sciences, approximation is an adequately virtuous aim of long standing. This can be seen in scientific method, which puts a premium on later substitutions in the place of shortcomings; and in the feedback cycles of learning-by-doing improvement which are charted in theories of engineering design.

### Culture and adhocism

Mythology takes up the archetypal problems of experience and seeks to give them explanation. As information, mythology is a time-saving device, and many different societies adopt similar sets of myths even though each might be capable of inventing a more original set. Maybe this is because if one spends one's time

11 David Pye, *The Nature of Design*. London and New York, 1964. Pye's later chapter on "Analogous Results" is an impressive adhocist account of the creative process at work.

12 Unpublished transcript, copied from an architectural school bulletin board, 1965.

telling a new story to explain evil, or to explain the forces behind the reappearance of the sun, one is less likely to get further into the question. The Greek, Scandinavian and German families of gods show a pattern of kinship which points to some *ad hoc* adoptive or re-inventive process in European myth. But the use of "adhocracy" in this context is very tentative. In experience and culture, things are so thick and confusing that "a system" is, practically, what you will. Experience offers neither purism nor adhocracy in any clear way, only in some relationships and contexts within a jumble of other contrasting relationships. Such is life: we can "see," ignore, or even deny a relationship.

Since my culture is comparatively comprehensible, it seems systematic and pure compared to yours. Culture provides a blindfold that may see an alien system (albeit puristic in its own context) as disreputably unprincipled, illogical, adhocratic: "That looks weird!" "Why don't they do it the right way?" No principles make sense but my principles. Thus Lord Raglan once had the insularity to say, "savages never invent or discover anything"; and, since for him every introduction had to be a novelty, "no invention, discovery, custom, belief or even story is known for certain to have originated in two separate cultures."<sup>13</sup> Even the clearest parallels from "savages" are difficult to accept, so one might deny their invention, or impute it to imitation. Archaeologists until recently could only explain European astronomical megaliths in terms of the "diffusion" of culture from the Near East; purist single-source and adhocratic independent-source theories about the same historical circumstances now compete for attention.

### Half a loaf

The perception of most life problems—hunger, grief and pain aside—is *ad hoc* and contingent. While a fixed point of view may be a necessity for adequate concern about the decline of the west or the crisis of the age, when the point of view shifts tomorrow, contingent positions suit the next crisis, "revolution," panacea or exposé.

13 F. R. Somerset, Lord Raglan, *How Came Civilization?* London, 1939.

Shifting perceptions agree with the shiftiness of existence. Politics, society and individual experience present many problems that are avoidable, and others that are created in order to bring on the "solution," such as social violence leading to social reform; or dawdling leading to guilty hard work. The reverse is also true: one finds "problems" (such as a lower "standard of living") in places where they are not felt to be such. A journalist friend told me of learning during an interview that over a million and a half pilgrims every year arrive at the shrine of Mecca, but the town has no special housing or accommodation for them. He said to an Arab leader, "All those pilgrims must make a tremendous problem." To which the politician replied, "Not if you don't want to solve it."

Solutions to practical problems are often puristically dragged through a course of making things worse in order to make them better. This was certainly true among the early socialists. Engels's *Condition of the Working Classes in England in 1844* contained painstaking observations and the most exhaustively detailed criticism of slum conditions in Manchester, but Engels concluded that nothing short of revolution was worth bothering with. Later Engels and Marx, attacking "every principle of existing society,"<sup>14</sup> refused to countenance any social solutions that would take problems one at a time.

As Engels knew, the piecemeal, reformist, *ad hoc* approach to social problems might indeed reduce the desire for rebellion, but purist intransigence is not a monopoly of revolutionaries alone; liberals have often taken the same stand for no such objective reason. Cholera epidemics in England from 1831 onwards finally led to the appointment of a Royal Commission to study sanitation. A public health law allocating funds and responsibility for a sewage system finally came before Parliament in 1848 but, curiously, the radical *Economist* expressed regrets:

Suffering and evil are nature's admonitions; they cannot be got rid of; and the impatient attempts of benevolence to banish them from the

14 In *The Manifesto of the Communist Party*, 1848.





(136) Expediency in Vietnam: a makeshift bridge incorporating the remaining section of a bombed bridge over the Perfume River

world [with] legislation, before benevolence has learned their object and end, have always been productive of more evil than good.<sup>15</sup>

Such arguments were similarly heard in Parliament, for example from the liberal Herbert Spencer. The grounds for opposition were that piecemeal intervention in private affairs was an infringement upon liberty and that a public sanitation system could only be a palliative, the adoption of which would only mask the disease and put off a complete cure. These unwitting liberals and quite witting radicals justified inaction by presuming that an extremely bad situation leads to a good solution, whereas a partly bad one may remain that way. The potential destructiveness of such absolutism isn't often perceived as a philosophical issue in itself. Answering residents' criticism of a planning decision in Forest Hills, New York, a housing administrator did raise the philosophical issue and produced an adhocist defense: "Must we not do what we can while we can? Is heaven on earth really one of our choices?"<sup>16</sup> (136) Justifications for trying to win only the available half a loaf are seldom voiced, except as an excuse.

15 13 May 1848. Both this and the preceding are quoted in Leonardo Benevolo, *The Origins of Modern Town Planning*, London, 1967.

16 Simeon Golar, letter in *The New York Times*, 11 January 1972.

Adhocism does have a place even within radical absolutism, accepting the downward momentum of social crisis, but exploiting it for other than total ends. In *The Economy of Cities* Jane Jacobs points to the "inefficiency" and compelling problems of cities as promising, because only thus are social and political difficulties perceived and resolved.<sup>17</sup> Similar arguments a few years ago were heard offstage from radical, formerly liberal blacks who sought social "confrontation" to hasten improvement. Unlike the all-or-nothing socialist strategies, these begin to work before things get very bad. Both Mrs. Jacobs and the non-revolutionary blacks are not absolutists but intentional adhocists, calculating upon unpredictable improvements as the result of turning up the heat and laying on social pressure.

Whether one seeks to serve classic social aims by using *ad hoc* methods, or tries to find new social possibilities through the use of *ad hoc* methods, an adhocist technique requires close watch, quick reaction and careful control. As a result, continuous piecemeal action seems as close as one can get to adhocist politics within any non-adhocist form of government. If this entails adopting uncomfortable new modes of flexibility and patience, it is still better than accepting the typical facedown when one chooses an extreme position that gets thwarted. Professional planners have to deal with the

17 Jane Jacobs, *The Economy of Cities*. New York, 1969.

same difficulty, a problem I will come back to later. When concerned citizens took an inflexible and impatient stand against a new marina in Brighton, England, their opposition completely evaporated once planning permission for the project had been granted in 1970, despite the fact that some of the many eloquent speakers against the project might have influenced things for the better had they stayed interested after it was approved. Taking themselves off, they assured the *least* response to any clarified and particularized objections they might have put forward. But adhocracy is not to everyone's liking; many prefer a heroic role in a fresh battle to the slow amelioration of a situation which is easier to accept as unfairly "lost."

Practical problems can always be dealt with *ad hoc*, which may not mean stumbling into that course but choosing it by design. Design needn't involve a fixed position, means or procedure. Boguslaw thinks many *ad hoc* actions are unheroic "substitutes for design," including acceptance of or adjustment to difficulties, training by modifying personal requirements, leaving to avoid difficulties, and outwaiting them.<sup>18</sup> That the *ad hoc* is a substitute for design seems an unnecessarily Buckminster Fullerish judgment, since Boguslaw's examples are really designs of a special human or experiential kind, rather than a physical or environmental kind. Adhocratic experiential actions exploit human rather than material pliancy. They are essentially optimistic (including even leaving—you must have the means and the alternative), though they might well be severely self-limited too, by not attempting to improve "things." Perhaps these low-grade but important design activities are better thought of as on a continuum ranging from human to material resources, and in a range of personal commitment. They are based on optimizing: making the most of it.

### Passive optimization: doing nothing

The simplest adhocratic action is doing nothing. Wait-and-see, weakly deterministic laissez-faire principles have long had advocates in economics, town planning and government, though there have been spectacular failures

in each field as a result. Nevertheless doing nothing has had, over the long run, the greatest rewards of any mode of action, in terms of the relationship between energy or cost (none) and benefits (possible). This is therefore a proposition always to be considered seriously.

Hoping that opposing forces may annihilate each other is the least of it. The fact that one chooses the situations in which to remain inert prejudices things very much towards a favorable outcome. Good results are usually guaranteed by going along freely with changing circumstances, selecting from among contradictory opportunities, and in those places thus exercising true choice. The pitfalls of a weakly accepting pragmatism can be avoided, since inertia as a life principle need not lack discretion. Tolstoy's idea of non-resistance to evil was such an inertia policy in effect, since it was calculated to change things, though objectively it seemed "neutral." Tolstoy wasn't really neutral about evil, but opportunistic in the widest degree. By being non-resistant he could seize opportunities *ad hoc*. The social dramas of Ibsen and Shaw are presentations of modes of inertia, starting with society itself. The relationship between characters and events are generally shown as laissez-faire attitudes either changing because of resistance or (more usually) embracing the forces of circumstance and turning them to advantage, or being shown to have failed to do so. The results preordained in these playwrights' situations and characters are not laid on solely for literary or polemical effect, but are lifelike, since an outcome can be seen ahead of time in the majority of volatile situations. The inertia artist, like the character Rick in the film *Casablanca*, is one important kind of modern hero. Rick, the cynical neutral who finally fights the Nazis, isn't moved to action because he *takes leave* of inertia as a principle, but because inertia leads him there.

### Feeble optimization: coping

The boy who put his finger in the dike was a heroic copier. Without need in a desperate emergency, there is nothing heroic about merely coping with situations, though as adhocratic action this is the next grade up. Coping lacks both the flexibility inherent in inertia and the commit-

18 Boguslaw, *The New Utopians*.





(137) A Heloise-ish cope in California

ment implicit in more adventurous forms of action. You "muddle through" without noticing what you are muddling towards. The classic copier is the housewife, and one can infer from what she has to contend with that coping is often a kind of makework in psychic energy.

The ubiquitousness of coping must be fantastic, vying only with doing nothing as an administrative method. There must be at least millions of would-be copiers. The most widely syndicated column in American newspapers is "Hints from Heloise," a weekly catalogue of feeble household suggestions that rarely pass muster as any help at all. The retrieval adhocism of salvage tidy-mindedness is a constant note:

... keep one of these beautiful plastic jugs (cut off about six inches high) in your kitchen sink. After all the watery substance has drained off your vegetables, etc. dump it in your garbage, turn on the water faucet, and rinse that plastic container out. Leave it in your sink. You are going to use it tomorrow, tomorrow and tomorrow once you get used to it.

I have also found—by accident—that these big plastic jars are excellent to keep lettuce in, if you punch a few holes in the bottom of the jug. Know why? They fit a head of lettuce! Exactly. . . . But best of all it's free.

When you can utilize something don't ever throw it away.<sup>19</sup>

The suggestions for coping from Heloise are so petty, so gratuitous, unlikely and *ignoble*, that they almost cry out for sympathy. Surely that is the explanation for the column's huge audience, because who would dream of:

a) Keeping flies away from the garbage can by pouring a little used auto crankcase oil in the bottom ("From Georgia").

b) Stopping ants from coming in a kitchen door by drawing lines across the sill with chalk; drawing lines around the sugar canister and cake tin ("From Boston").

c) Making paper bags for lining garbage cans ("... and don't you hate that job?") by folding sheets of newspapers and sewing them on your sewing machine ("From Texas").

d) Stopping up a crack beside the stove by cutting a yardstick "the correct length," covering it with foil, and shoving it into the crack ("From Oklahoma").

These are not *recherché* items selected for their grotesque pathos, but four items in a row from a Heloise collection, *Kitchen Hints* (over 100,000 copies sold). Similar "copes" can be found in *Heloise's Housekeeping Hints* (over 350,000 copies sold); and both are mere sequels to Heloise's original (who knows how many were sold) *All Around the House*. And one must grant that hundreds of thousands of Heloise housewives may save money, they may save time, they may feel efficient. They line shelves with several layers of foil. They save a penny or two by collecting old soap pieces in a ripped, knotted stocking, and the squalidness of the resulting soap bag is balanced by the sense of cleverness in figuring out how to use everything. Ripped plastic upholstery returns as a tablecloth—another psychological triumph over mutability.

Using objects with one purpose to serve another purpose, or no purpose at all, can be thrilling: you can shell frozen peas by running

19 *Heloise's Kitchen Hints*. New York, 1963.



them through a washer wringer; "I use a plastic shower cap as a cover for my waffle iron. It fits perfectly, and looks lovely"; if you need a life-jacket, make one from some old blue jeans sewn around a small mountain of bottle corks, if no one has drowned by then; etc., etc., etc., etc., etc.

A certain strain running through Heloise makes one stop and think. It has nothing at all to do with the basal adhocism of her suggestions, but the propaganda of creative fulfillment that goes with them: stop working yourself to death; never feel defeated; spend a few nickels or dollars on yourself; "make yourself believe that you do the best you can." These creations are meant to purge melancholy, but does the melancholy come from an otherwise fatuous life, or at least partly from the psychic cost of maintaining excitement over piddling triumphs?

Maybe subverting the world into receptivity towards adhocism won't be difficult, as can also be judged by another cultural palimpsest, *Popular Mechanics* (in case one thought that only women coped away ignobly). The examples offered by the monthly departments called "Hints from Readers" and "Solving Home Problems" make the magazine virtually an adhocist journal. But though *Popular Mechanics* copes too, it does so with a certain difference. A suspicion arises that the suggestions offered there are not meant to be carried out, but merely intended to tingle the reader with appreciative delight. Would one honestly consider *doing* this? "Make your wife's washday easier by presenting her with this simple clothes-pin container. It's just a plastic bottle with a section removed for access. Feed it on the line and it's easy to slide along."

Or this? "In an emergency, a small oil can may easily be converted into an alcohol lamp. Clean the can and fill with alcohol. Then enlarge the opening of the tip and feed through a long cotton cord to act as the wick."<sup>20</sup> (What emergency? One that gives enough time to hunt up an oil can and wick, and find some alcohol?) These "hints" and "solutions" are scarcely to be remembered long enough until the "problems" calling for them appear. Their real purpose, and perhaps Heloise's purpose



(138) *Popular Mechanics* solves an absurd Home Problem, April 1971

too, is to give readers a thrill of appreciation for ingenuity (138). Since it seems to be a kind of aesthetic appreciation, for the development of a future sensibility these publications are, quantitatively at least, no mean resource.

Coping without the thrill is adhocism without quality. Its hopelessness is even tragic when the horror of makeshift satisfaction makes one gasp that anyone could endure it. A properly noble patron to counter the ignoble tragedies of adhocism could be the blinded Earl of Gloucester in *King Lear*, who endures the loss of sight and station saying "I have no way, and therefore want no eyes." Coper almost to the end, Gloucester feebly protests that he stumbled when he saw, and that even defects can prove to be valuable.

#### Active optimization: doing it yourself

If the adage for coping is "make it do—or do without," the next grade of experiential adhocism applies the principle "make it do—or make it yourself." Whatever significance these axioms might have had in pre-industrial society, their application is different today. As in coping, doing-it-yourself often seems to have less to do with real creativity or economy than with turning the endlessly unsatisfactory and untidy household momentarily into a creative playground.

20 From *Popular Mechanics*, February 1969.



(139) The Spacemaster "Brindisi" easy-to-erect home extension, made for the British market

At least on the evidence found in one study,<sup>21</sup> "do-it-yourself" has become a mass phenomenon with its own crafts shows, product exhibitions and publications. Since World War II in Britain and in America, the phrase and its meaning have become commonplace. "Its meaning is plain," Macdonald says: "Do it yourself—instead of someone else."

The application of this meaning has spread almost unconsciously through the popular media, to a diverse range of production, construction and decorating situations. It implies not so much a method as a pioneering or protesting attitude—a personalising gesture. No matter which need it is based on—economic, stylistic, creative—it is inevitably an attempt to bypass an institutionalized convention; whether it be a range of equipment with little choice of finish, the architectural profession, tradesmen and their unions, or simply the state of the environment. Difficulties in organization often produce the reaction, "I'll do it myself."

But if the phrase "do it yourself" can be seen as a unifying one for this attitude, it is harder to define the scope

21 Stuart Macdonald, "Do it Yourself: the 'do it yourself' idea and industry in Britain," unpublished history thesis, Architectural Association School, London, 1969.

of its work. [Diverse] end products . . . belong to the same initial attitude or idea. An industry has sprung up to satisfy the person who wants to participate. . . . "Teach yourself . . .," "do it yourself" publishing has a huge market and Vogue pattern books have never been so popular.

It is hard to decide what to call this emergence of "do it yourself." It is not a movement, as it has not hardened into a self-conscious system. It has encountered little organized criticism. It has no spokesmen (except for editors of "do it yourself" magazines). Few surveys contain insights into its practice . . .<sup>22</sup>

The present do-it-yourself attitude in England began with the decline of William Morris's Arts and Crafts Movement of experts in the 1880s and the birth of many amateur artistic "guilds" and handicrafts societies that followed. These largely substituted personal recreation for the handmade work Morris advocated, which had proved economically unfeasible. In America, Sears, Roebuck began to sell dressmaking patterns, and in the rural hinterland the need for services and trades was supplied through mail-order catalogue yard goods and craft tools. "Where tradesmen were not available the work of the trade became that of the customer," Mac-

22 Ibid.



donald says; Sears's knockdown garages, ready to be erected by "any handy person who can use the common tools found in every home," were probably the first prefabricated buildings sold on the open market (139).

Britain experienced a do-it-yourself boom after World War II because of the acute need for homebuilding, the difficulty of securing mortgages, a lack of competent builders, and the reassuring example set by the fact that men coming back from the war could enter new jobs either without training or through retraining schemes. After an awkward period of transition when British unions and product manufacturers opposed the new public interests, manufacturers reconsidered and embraced the amateurs. The effect during the similar period on trades in America was that craftsmen relinquished some trades, such as painting and decorating, to the amateurs almost completely.

Some of Macdonald's findings are at least arguable. He claims that do-it-yourself has no economic or class boundaries, but apart from the squire doing his own gardening, it rather seems that do-it-yourself as a consciously espoused method is almost exclusively a middle-class phenomenon. There is no novelty or cachet to handwork in a handwork society, but when a worker—or an entire class—had risen above manual labor, a nostalgia for the satisfaction of working with one's hands (perhaps with a protest too, and a romantic yen for "ecological" coping) seems to set in, as testified by the recent success in America of earthy aids like *The Mother Earth News* and *Living on the Earth*. Handicraft skill no longer carries a working-class stigma. This is an important fact in considering the further spread and influence of do-it-yourself.

In America, a vast new market has already burgeoned as producers have wedded two great native traditions, Emersonian self-reliance ("No, Mother, I'd rather do it myself") and the labor-saving device (Ford's assembly line) in order to exploit handicraft. The would-be do-it-himselfer is offered products that can do it (almost) for him—for a price. Marketing ingenuity is supposed to outstrip easily the fumbling imagination of man and hammer or girl and needle. The post-working-class man can spend thousands of dollars on



(140) A canonically pervasive transformation for the do-it-yourselfer

electrical saws, lathes and sanders to create his world in one part of the basement. The unfulfilled girl with a B.A. can lay out \$7.50 for a slim volume on macramé weaving, more still for a "hassle-free" book on making one's own clothes, illustrated with photographs of care-free hippies, and over \$50 for someone else's design on a do-it-yourself needlework pillow. It costs more and more to buy the illusion that one has escaped from the money economy; even *The Anarchist Cookbook*, which tells how to make bombs and grow dope at home, sells to anarchists at a hefty \$5.95.

As Macdonald himself admits, the do-it-yourself method is of more interest than its homemade products, which are mostly manual-fetish junk now. The annual D.I.Y. Show in London is an appalling collection of exhibitors' stands ranging from "Abstract art" in the 1970 catalogue to "World development (Taiwan)," whatever that might be—every trick of exploitation and overdesign is developed in advance by the producer, and what is left to the customer are the meanest manual gestures hopefully to suggest in the end some personal identification with the product. But the dreary number-paintings, junk jewelry kits and assemble-it-yourself tea carts do suggest, after all, that many people want to take a hand in creation; surely the lesson would be much clearer if component products were presented that it was worth applying oneself to. If the people engaged in coping and doing-it-themselves seem dubiously occupied, they nevertheless are using enormous energy for their banal purposes. This





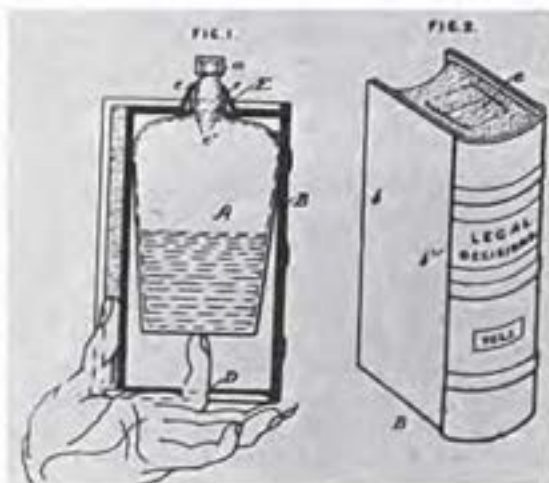
(141) San Francisco Bay area house embellished with scrap wood

energy has now gathered so it embodies a virtual *Zeitgeist* of contemporary culture, one still waiting to play a properly recognized role.

### Creativity and novelty

Beyond passive, feeble and active optimization lies true creativity, some would say. But support for adhocism implies suspicion of the idea that progress is mainly due to isolated geniuses who ignore the work of others. *Novelty* isn't important to an adhocist—because a search for true novelty is usually fruitless.

Is anything altogether novel? Perhaps the essential statement about novelty is not that it doesn't exist, but that it is hard to dissect and describe, and so it lacks ultimate importance in a discussion about the mechanics of creativity—progress remains firm while the process may repeat. In contrast, the history of science, and, of course, the commercial necessity of patent rights, attempt to place great importance upon questions of precedent and novelty. In a popular history like Paul de Kruif's *Microbe Hunters*, the glamor of heroic discovery overshadows the less dramatic precedents, associations and combinations. Most scientific researchers would probably agree, however, that who-thought-of-it-first in their work has only motivating value, not practical importance. In fact patents and commercial secrets pose considerable problems



(142) Drawing filed in Her Majesty's Patent Office

in research.<sup>23</sup> If one could turn attention from "originality" to resourcefulness instead, it could have a liberating effect upon designers.

Originality in art, nevertheless, is not a trivial matter, because as a concept it has a special role which should not be mistaken for the ordinary meaning of the term. Originality is what distinguishes art as art; denotes its basis in feeling, calls attention to its quality of *artifice*. With "originality," there would be no sure way of identifying human expression, and art could be nature—an impermissible confusion. This meaning is quite different from that of autonomous, out-of-the-blue originality (novelty) in most other matters, but a mixup exists between the special aesthetic use of the word and the word in other relationships. In Her-

23 Patent law requires certain conditions to be fulfilled, which are generally as follows:

There must be a basic conception or idea.

It must have concrete, describable form: a process, product, specification or work.

The thing must be new (a tautological point, but one consecrated in law).

It must have value.

This is British patent law, but other countries have similar requirements if patents are to be granted. The difficulty of proving novelty is illustrated by the fact that patent actions are the most expensive litigations known in Britain. However, as patents are implacably granted, presumably all the disputes are eventually settled in homage of novelty as an empirical notion. Meanwhile the very difficulty of establishing what is or isn't original seems an important clue to the wider triviality of the issue (142).

bert Read's essay "Originality,"<sup>24</sup> he generalizes from the aesthetic concept of the word, and heedlessly deplores the balancing importance of precedent and style—attachments which he feels could only be held by a dialectical materialist, "to whom every event is a link in a causal chain."

A villain of Read's piece is T. S. Eliot, whose epigram about "stealing" instead of "borrowing" has already been quoted. Eliot criticizes invention in poetic technique (by which he means "originality," in the ordinary sense):

. . . invention would be irreproachable if it were possible. "Invention" is wrong only because it is impossible. . . . The poem which is absolutely original is absolutely bad; it is, in the bad sense, "subjective," with no relation to the world to which it appeals.

Originality, in other words, is by no means a simple idea in the criticism of poetry. True originality is merely development; and if it is right development it may appear in the end so inevitable that we almost come to the point of view of denying all "original" virtue to the poet. He simply did the next thing.<sup>25</sup>

Read follows by saying: "This confirms my view that the opposition to originality in the arts is usually a moral one, or perhaps a political one, and that the moral or political objection gets unconsciously transferred to the artistic method."<sup>26</sup> One could protest that it is Read

who is unconsciously transferring his aesthetic faith in originality to the real problems about novelty that are more general. But it is impossible to be doctrinaire because art overlaps with life, and a view of originality in art as being a mixture of new and old must ultimately be admitted. A touching illustration of the ambivalence of "originality" was Sandra Oland, a sixty-seven-year-old "clairaudience," in her interview on BBC Radio London, 10 February 1971. She said that though a trained musician, she could not compose and was a flop at theory and harmony; but she found that when she closed her eyes, sat at the piano and played in a trance, she could produce "absolutely original" music. Her sounds "did not come from this world but came from the spheres," and she played them in prisons and hospitals to promote harmony since "this music seems to have greater power for healing than classics and other things played and sung." Miss Oland then produced an example, which was disappointingly a Rachmaninoff pastiche in march tempo. Her mother, she said afterwards in an unwitting *mot juste*, called it her gift for "second hearing"!

I am not tempted to call Miss Oland's guileless demonstration a fraud. Rough-and-ready approximations to a far-out ideal always exist—"inspiration" really has more to do with memory than with the muses. In the nature of meaning, too, "utter nonsense" is apparently an abstraction on the order of "total novelty," since people seem unable to prevent meaning from attaching to every perceptual message. In one experiment using "nonsense" words, successive subjects persistently selected the same names for geometrical forms. Perhaps the memory stores abstractions of experience for future use *ad hoc*, rather than details, whose unnecessary particularities would only restrict choice in new situations. If this notion is correct, it helps to explain the genesis of such conceits as the "36 basic plots of fiction" (or whatever the number is taken to be). At a higher or more general level it's all been done before—and a library of precedents is available to the imagination. Histories of technology amply show this, where even the most complicated sequence of problem situations, such as the Apollo space program, may be still broken down into adaptation-provoking bits, as the de-

24 Herbert Read, *The Origins of Form in Art*, pp. 11–32. London, 1965.

25 From Eliot's introduction to Ezra Pound, *Selected Poems*, London, 1928.

26 Read, *Origins of Form*, p. 24. In fact, Eliot's conservatism consciously embraced art, politics and culture (cf. "Tradition and the Individual Talent," in *The Sacred Wood*, London, 1929, reissued 1960). While tradition might first seem the least *ad hoc* of creative methods since it sharply limits the choices open to the individual artist, for Eliot it was the only reliable source of energy. Its apparent constraints, according to Eliot, result from ages of trial and error in the culture that would be the audience for the new work. Previous effort gives the artist a storehouse he would be a fool not to use.



(143, 144, 145, 146) Andrea Palladio's villa design of about 1540 shows an early example of the "Palladian" wall opening: a round arch flanked by lower square-head arches. This form was later re-used repeatedly—by Palladio himself in rustic style in the Villa Pojana (1545–50) and as a two-story wall in his Vicenza basilica (1549); then later by Vanbrugh, Gibbs, Campbell, Burlington, and hundreds of others. By the end of the eighteenth century the Palladian form had entered design typology so decisively that, in Ledoux's project for an agricultural center at Meaupertuis, it alone was used to mark a simple sphere as "architecture"

vice similar to a camera rangefinder which was used on the rocket control module to aid in docking with the lunar module.

If meaning, the sense of plot, style and the memory of archetypes all seem to function the same way, it is because they all depend at first upon whatever limited resources are on tap. So Shakespeare is not necessarily reproached by Robert Greene's calling him a thieving "upstart crow," and the painter Mark Lancaster, when he said about an outdated style in a new painting "It's all coming back!" needn't have been concerned. Creativity depends on discovery (what's around) which isn't the same thing as novelty (from the spheres). Novelty may be no



more than an intellectual confidence game, inspiring confidence. Or, perhaps it is a *non sequitur*: novelty can only be had by someone with no experience. Liberation from the search for novelty leads to many rare freedoms, such as the freedom to steal without guilt. Recognition of this, and acknowledgment, makes the act a moral one.

## Chance

As experience provides a library of archetypal patterns, "basic plots" that can or must be used, a vital issue in creativity is how to retrieve the relevant information. Ever-changing requirements and the need for new insights, better methods, or commercial advantages often defeat the hope that a short selection of archetypes from an available list will be of much use. If some cultural psychologists and management consultants are to be believed, an important additional aid to creativity is serendipity: the aptitude for making fortunate discoveries accidentally. Like being accident-prone, being serendipity-prone seems a state into which it is possible to will oneself unthinkingly. As grist for serendipity's mill, the presence of apparently irrelevant matter becomes a necessary factor, feeding the disorder of imagination beyond memory's limiting order. Since it's impossible to predict where fortunate discovery may lie one must seriously consider the role of chance as aiding an efficient retrieval system.

Everyday life provides ample material for encountering chance, especially in play, and as the outcome of unanticipated wrong moves—like finding a superior shop as a result of missing a highway entrance. Daydreaming also helps (perhaps dreaming itself is not unconsciously methodical, as Freud suggested, but methodical through chance). Chance is cousin to inertia as an adhocratic method. Flipping a coin to make a decision takes account of the fact that opportunity may lie in either of two directions. One of the oldest books in the world, the *I Ching*, embodies a Chinese system for prophecy based on permutations arising from the selection and interpretation of sixty-four hexagrams. Through these, as in Tantric Buddhism, a mechanical method is adopted to support and direct the more arbitrary acts of will. Fortune favoring

the prepared mind, one can scarcely doubt that results could be rewarding—as they might be if any option is taken up with caution (or passive optimization: wait-and-see). One can likewise understand the creative role of chance emerging from the inscrutable pronouncements of the Delphic Oracle. In all these cases, someone who is lost can find a way by simply *choosing* a way, by chance, instead of standing still or walking in a circle.

As card players find out, a good poker player always wins, provided he sits at the table long enough. This is despite the fact that the distribution of cards depends solely on chance, and a winning hand could go to any player. One doesn't need luck to win at poker. The law of averages wins, if one makes optimum use of chance in the betting and others don't.

Chance itself can appear as the crucial element in a work of art. Metaphor is a sort of low-risk gamble in an identification system, and the riches of the pot are often proportional to the risk of being misunderstood. In his analysis of metaphor and other figures in poetry, *Seven Types of Ambiguity*,<sup>27</sup> William Empson's seven types correspond to what could be quite similar adhocratic intentions; ranging from Type 1: a detail effective in several ways at once, "e.g. by comparisons with several points of likeness, antitheses with several points of difference," through ambiguous meanings, puns and allegories, metaphor and paradox, "a fortunate confusion," contradictions or irrelevance forcing the reader's interpretation, to Type 7: "Full contradictions, marking a division in the author's mind."

"Fortunate confusion" and irrelevance are likely to be serendipitous ambiguities in which chance plays a great practical role; the others mainly rely on intentional synergisms (where different parts cooperate and amplify each other's power), though these also might be first combined by chance. Once selections have been made, chance ceases to be accident. If one considers the end product alone it needn't matter how the enriching ambiguity occurs because any chance discovery is gone once the integration is complete. But though the end product may suggest inevitability, creativity draws material benefits.

27 London, 1930.



(147) Niki de Saint-Phalle fires a .22 rifle at cans and bags of colored paint hung against her whitewashed construction, allowing *chance* to determine the splatters and drips

Within the horizons of chance, effects described by the useful terms serendipity and synergism play crucial roles. An adhocist dares and develops such risky effects as gambles, hopefully in his favor.

#### Adhocism by sheer selection

Whether or not initiated through chance, selection itself can be a form of discovery. When simple resources are amply on offer it is hard to justify casting about, and clear convenience may provoke adequate satisfaction from what is readily available. Product literature serves up information on practically endless devices to be combined. As in the do-it-yourself market, often the *less* combined the devices are beforehand, the better. A door could be sold as a fitted-out whole, like many more complicated building subassemblies. Instead doors are component-articulated, which benefits users. They are adhocist combinations of a panel, frame, hinges, knob and latch; sometimes also a lock, closer, weatherstripping, bolts, peephole and buzzer. By these means—and even after having decided that the door shall be a four-panel one with louvers in the top, painted red—there are still thousands of combinations to choose from, including such fundamental choices as whether the door swings out or in, is 6'6" or 7'0", is hinged left or right. The sliding door in science-fiction films is multi-fying compared to this versatile collection of separate choices.

The automobile is not an *ad hoc* construct, but the interchangeability of its standard "features" is calculated to give it the appeal of an individual design. The British Ford company advertised in 1970 that over a thousand different cars could be made without repeat using major alternative subassemblies offered in their line. American Ford could probably go ten times further numerically. Complicated technological gadgets like cars can be "personalized" easily and cheaply for sales, though they can't be made truly *personal* except at great cost. George Barris of Barris Kustom Industries in Los Angeles produces eccentric personal cars (including a false-adhocist Bathtub Buggy shown at the U.S. Pavilion in the 1970 Exposition at Osaka). The adhocist mainstream is found in hot rod catalogues, like Warshawsky's in America, that not only sell clip-on lights and trim, but engine parts, transmissions and gearboxes, with pages of *adapters to link one make with another* (151). Present-day hot rod adaptation parallels Henry Ford's early development of his car in Detroit. We now remember Ford for his assembly line of specially tooled components, but at the beginning, after two false starts, he didn't try to make all his own parts. Instead, he at first began again by buying almost all his components from existing automotive suppliers.<sup>28</sup>

Like Detroit in bygone days, Britain still has many small automobile companies. Their financial success in an established heavy-industry line is hard to understand until one realizes that they are often component assemblers of big-company production line parts, marketed within a fiber glass body envelope. Fiber glass bodies can be built virtually in a back yard. A characteristic company is Lotus, and it is interesting to see how the product has changed over time. The Lotus Mark I was built by Colin Chapman in 1950 with a plywood body based on a modified 1930 Austin 7 chassis. A few years later Chapman was selling cars, usually in kit form, based largely on British Ford parts.

28 Henry Ford, *My Life and Work*. New York, 1923. Describing that time, Ford also says: "The most economical manufacturing of the future will be that in which the whole of an article is not made under one roof—unless, of course, it be a very simple article. The modern—or better, the future—method is to have each part made where it may best be made and then assemble the parts into a complete unit at the points of consumption."



(148, 149, 150) Custom cars can be truly *ad hoc*, like a mechanic's construction in Hidalgo, Mexico, 1971, put together from available parts. The slicker examples in their refinement are almost puristic by contrast, though they also trade on an appreciation of an adhocist sensibility: Barris Kustom Industries' mimetic V-8 Juice Roadster, 1970; and Gene Winfield's ForChevAmChrysVagen, or AnyCar, 1971, designed for a bank's car loan promotion

But it was felt that the adhocism of the Lotus was something to be disguised, and, indeed, with the growing success of the company, the car began to depend less and less on other manufacturers.

Meanwhile Lotus concealed their sources as much as they could. In the late '50s the Lotus

spare parts were identical with Ford, Morris or Vauxhall parts—but they were packed in Lotus boxes with Lotus numbers. Among the customer *cognoscenti* lists were exchanged giving original source designations for a cheaper supply. Even though the Lotus factory choice of, say, a new chrome-and-plastic tail light assembly meant a major restyling of the car's rear end, Lotuses scarcely "expressed" their adhocism—the company was ashamed of it. Lotuses are not *aesthetically* satisfactory examples of adhocism. Now that they are selling over 4,500 cars a year, the kits are almost gone, and like Henry's original Ford after a time, most of the components assembled today by Lotus are made by the company or at least produced to their special order.





(151) Part of a page from the 178-page Warsawsky catalogue, 1971, showing engine adapter kits

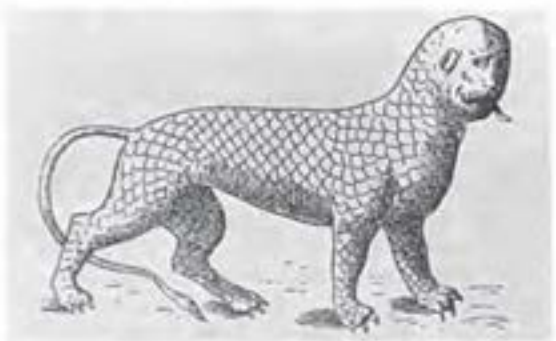
Like the development of the Lotus, the history of musical instruments shows *ad hoc* objects developing through series of borrowed improvements into stable forms, though continued stability would be difficult to rely upon. Some of the developing lines have been:

#### Percussion

hollow tree → hollow tree with stretched skin → shaped drums; snares and other fittings, tuning clamps

#### Brass

animal horn → metal horn → coiled shapes → horns of various sizes with valves



(152) Medieval bestiaries, and animal illustrations from other cultures too, frequently showed pre-production model creatures: assemblages of proven parts from elsewhere, pending fuller investigation. Here a sea lion (1554) was logically constructed from reports of a four-legged fish that roared

The Metropolitan Museum of Art, The Crosby Brown Collection of Musical Instruments, 1889.



(153) A kissar, an African drum-lyre, made from a human skull and gazelle horns

#### Organ

syrinx (whistle pipes in tandem) → mechanical air supply → keyboard → stop mechanism → swell box → sounds ("voices") in *ad hoc* imitation of other orchestral sounds → amplified sound

#### Piano

harpsichord → hammer escapement (clavichord) → pedals → double escapement → overstrung scale

#### Use of the voice

chant → profane song with accompaniment → lieder, bel canto, expressionism of opera dramatic roles

In the stylistic development of the voice, the *castrati* were clearly adhocist (though scarcely examples of adding-a-part!). Such cataclysmic development wasn't the rule as instruments changed. A bit of it was simple addition: the Next Thing. Instruments were, and remain, slow to change, if only for the sake of performances within the existing repertoire (though wholly new types are always developing); the very different history of non-Western musical instruments provides an exact parallel. In the sequence of change, components, forms, materials and subassemblies (the valves, the uses of metal and wood) were adapted from instrument group to instrument group. The keyboard appeared in the clavichord, harpsichord, piano, organ—and in early typewriters too. It reap-



(154) The Cornhuskers in action, 1954. Other musical improvisation stylists have played jugs, spoons, saws, comb and tissue paper

peared mimetically (not functionally) in the xylophone and marimba, which also borrowed drumsticks from older percussion instruments. Recently, electrical sound amplification, first applied to guitars among the classic instruments, has been extended to the piano and violin.

The adhocism of musical instruments is not only practical, it is often intentional. The example of the organ is particularly clear since in its later stages of development the sounding was being altered for specifically imitative purposes.<sup>29</sup>

### An exemplary *ad hoc* construct

Assuming pencil sharpeners (and knives) didn't exist, I will suggest how one might be invented to demonstrate practical adhocism through chance and selection. As the possibilities are

<sup>29</sup> Music itself is largely mimetic, and so also intentional to that degree (it imitates sounds, or traditional representations of sounds). Folk songs are *ad hoc*, often depending upon traditional tunes for new words and vice versa. Popular music presents such dazzling examples of adhocism that one could scarcely recount them all. As music critics have constantly pointed out, the Beatles's eclecticism in a few years and sometimes simultaneously has embraced folk music, "soul," rock and roll, blues, various esoteric national vernaculars, honky-tonk, ballad, modern composition, orchestral arrangement idioms, lieder and nursery songs.

almost infinite, imagine we are locked in the kitchen.

a) Clamp a mechanical apple parer to the table. (Let's say this gadget happened to be there.) Extend the blade to its fullest, or use a pair of scissors to hold the blade out farther. Hold the pencil stationary with rubber bands. Turn the crank. The blade will revolve around the pencil and may sharpen it. If it doesn't, wedge the blade's springs with match books so they are firmer.

b) If the pencil is still not sharpened, try pushing it down the kitchen waste disposal unit. There is probably a whirling plate just below so the pencil must be held at an angle. Be careful of your fingers; better to hold the end of the pencil with a pair of pliers. No pliers? Sugar tongs may do.

c) Chew the wood away from the lead. This will be slow, so first try softening up the fibers with a meat tenderizing hammer. If that breaks the lead inside, try soaking the end of the pencil in water to make it soft.

d) If the soaked pencil isn't too wet, try burning the wood away from the lead. The enamel may all burn away at once, so prevent this by tying a wet piece of string around the pencil at the end, or holding the pencil in a spiral of wet kitchen paper.

e) If the wood is now dry again, and there is an abrasive potato peeler in the kitchen, sand off the wood and sharpen the point.

f) Or pare off the wood with a wrist-action vegetable parer.

g) The lead may be loose. Try pushing it through the wood with a fork tine.

h) Use a pair of scissors to shear off a bit of wood by rotating the scissor blades around the pencil near the end.

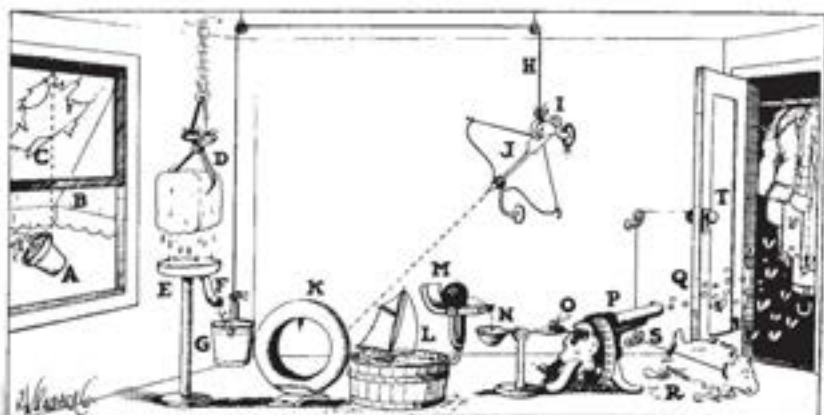
i) Bake the pencil until the wood chars and falls away. Use the lead alone, or wrap it in a thick spiral of aluminum foil.

j) Grate the pencil on a vegetable grater.

k) Open a tin can with a triangular can opener and pare the pencil wood in the v-shaped hole.

Etc.

THE PROFESSOR EMERGES FROM THE  
 COFFY BOOTH WITH A DEVICE FOR THE  
 EXTERRINATION OF MOTHS.  
 HEARY SINGING, LADY UPSTAIRS,  
 WHEN SUFFICIENTLY ANNOYED, THROWS  
 FLOWER POT (A) THROUGH WINDOW (B).  
 HOLE (C) ALLOWS SUN TO COME THROUGH  
 AND MELT CAKE OF ICE (D). WATER  
 Drips INTO PAN (E) RUNNING THROUGH  
 SUE (F) INTO THE (G). WEIGHT OF PAN  
 CAUSES CORD (H) TO RELEASE HOOK (I)  
 AND ALLOW ARROW (J) TO SHOOF INTO THE  
 (K). ESCAPING AND BURNS AGAINST  
 TOY SAW (L) DRIVING IT AGAINST  
 LEVER (M) CAUSING GUN (N) TO  
 INTO SHOCK (O) AND DULL STRING (P)  
 WHICH SETS OFF MACHINE GUN (Q) DIS-  
 CHARGING CARTRIDGE BULLS (R).  
 REPORT OF GUN FRAGMENTS LAMBS (S)  
 WHICH RUNS AND PULLS CORD (T) CLOSING  
 AND CLOSET DOOR (U). AS MOTHS (V)  
 FLY OUT TO EAT WOOL FROM LAMB'S  
 BACK, THEY ARE KILLED BY THE  
 BARRAGE OF HOT BULLS.  
 IF ANY OF THE MOTHS ESCAPE  
 AND THERE IS DANGER OF THEIR  
 RETURNING, YOU CAN FOOL THEM  
 BY MOVING.



(155) Rube Goldberg's classic "invention" cartoons complicate the performance of the simplest act with a screwball apparatus satirizing the slavery of man to machine. They also illustrate how even ludicrously approximate methods may do when real problems are perceived: Goldberg was first to "invent" a portable developing and printing kit, and a garterless sock

These "solutions" are all pretty poor, but given the situation they are adequate—any might work. Of course improvisation possibilities are rarely so limited. If not for being locked in the kitchen, and with much more time and some money to spend, one might make something to start with that was decidedly like a pencil sharpener. It is doubtful, though; the first attempts would probably be makeshift, and they would certainly be heavily influenced by chance and familiar inventive archetypes.







## 2 The Adhocist Sensibility

### Adhocist sensibility

The aesthetic tingle of satisfaction that comes from successful coping found its way onto the Letters page of the *London Times* on 4 March 1972, when a number of readers suggested *ad hoc* solutions to a complaint about no corkscrews being available on trains. One wrote:

I am sorry that Mr. Keith Ingham, in the predicament he described (February 28), was not so lucky as I was thirty years ago, on a wartime journey from Edinburgh to London.

My travelling companion and I also had no corkscrew, and my bottle of whisky had a cork. We were baffled until the third passenger, a charming intelligent elderly man with an Old Etonian tie, drew the cork for us with the aid of a screw extracted from the luggage rack (we had no screwdriver but there was a nail file in my suit case) and a shoelace from his own shoe.

I have always admired Eton but rarely more than then.

I am, Sir, etc.

[Major] Ian Alexander

Admiration seems appropriate, though certainly adhocism has been one of art's dependable resources in the past. After taking delight in adhocism as an occasional method, attention naturally turns to appraising its value as an entire aesthetic principle. If it came about, an adhocist sensibility would start, like Major Alexander's, with an appreciation of flexibility, approximation and connection for themselves, as well as for their results. Then, as the new cultural context emerged—adhocism as an art movement—

(156) Marcel Duchamp's *Bicycle Wheel*, 1913. With this work Duchamp became probably the first artist to explicitly present the adhocism of mere choice and combination as art

Sidney and Harriet Janis Collection. Gift to The Museum of Modern Art, New York.





(157, 158) Erhard Schön's puzzle picture with four portraits (ca. 1534) and G. C. Beall's *Find "What Roosevelt Means to the U.S.A."* in *This Picture* (1935) illustrate the adhocist principle of *unexpected recognition* (see also 11). Roosevelt represents the New Dawn, a bigger Navy and reforestation, elimination of child labor, the Forgotten Man, etc.

some latent and peripheral characteristics might seem attractive, and could be emphasized to help build an esteem for common adhocist qualities. Thus "styled up," aspects of an adhocist sensibility might include the following:

a) **The pleasure of unexpected recognition**, as in children's puzzles where the drawing of an animal is concealed in the shrubbery, but suddenly becomes visible. In art, quoted parts might either be noticed at once as parts, and then abruptly for what they do together, or vice versa (the picture of the "vase" which unexpectedly becomes a picture of two profiles). One reacts to this aspect of the sensibility by saying, for example, "My God! It's made of Ping-Pong balls!" (157, 158) In these terms also, adhocism itself might retrospectively become "discovered" as a method, mode, or style in a hindsight view of earlier works.

b) **An appreciation of hybrid forms**. Related to (a), some examples are the pictures by Erté with letters and numbers formed of smartly dressed women's figures (159, 160, 161), or the Empire State Building made of pencils or matches. Practical adhocism inevitably has to do with impure, bastard systems, because one order linked to another order disturbs the serene autonomy of each. This may lead to questions (in a mermaid, where does the woman become a fish?), or force an eventually accommodating overview of the hybrid (the mermaid and the centaur take roles in myth). What first seemed grotesque eventually becomes normal. Thus successive barriers of formal inhibitions collapse.

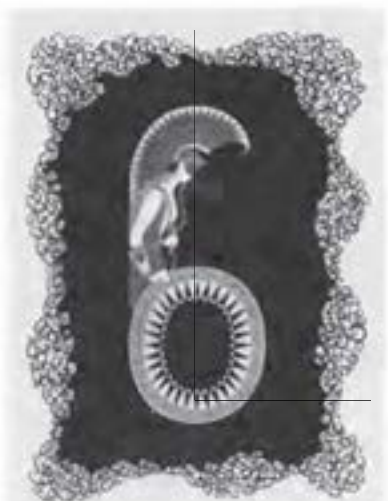
(159, 160, 161) Lithographs showing arithmetical figures formed of human figures by Erté (1968) capture the *appreciation of hybrid forms*



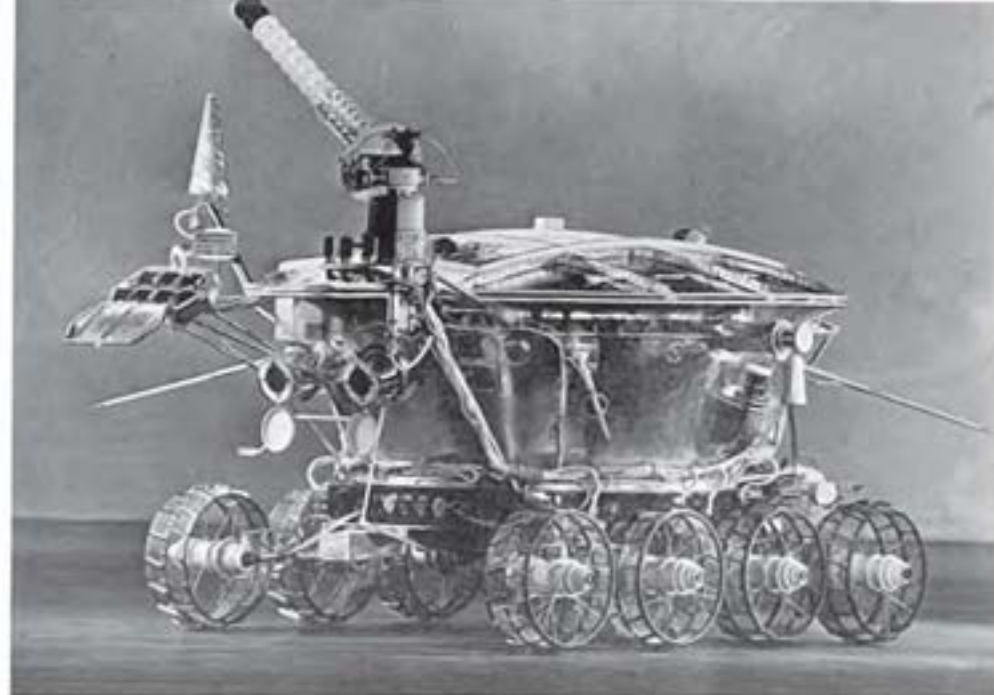
(162) A parlor trick, or puzzle, from Professor Hoffmann's *Magic at Home* (1890), demonstrates the adhocist sensibility's occasional quality of *contrived spontaneity*



c) **Contrived spontaneity.** An *ad hoc* inventor is limited by time and money restrictions, but an adhocist artist could stretch the rule and spend freely or search widely to produce the polemical "bargain" he "came across." Art, like magic, depends upon appreciation. Actual effort doesn't count where a sensibility is concerned. The magic trick of producing a "vanished" coin or key from within a can of peaches is accomplished by going to a cannery and getting a duplicate coin or key enclosed in a can. Similarly, in adhocist art, only the semblance of spontaneousness matters if secretly taking trouble contributes to the result.



d) **An appreciation for "function."** The word is in quotes because actual utility need only be supposed. Colonel Stoopnagle on American radio in the '40s described his absurdly "improved" musical instruments; Heath Robinson in Britain proposed similar contraptions. Adhocism as a principle of action is called into being by real and urgent purposes, but as a sensibility, it can mock the seriousness of real purpose, of urgency, and of usual means. Satire can be applied to stark functional solutions (a necktie used as a napkin) or overdone functional solutions (Swift's "Modest Proposal" of eating Irish babies in order to reduce the population and improve the diet). Real function



Collection, The Museum of Modern Art, New York. Gift of the artist.

(163, 164) Function in science (the Russian Lunokhod I, 1971), and "function" in art (Jean Tinguely, fragment from *Homage to New York*, 1960). In the adhocist sensibility real utility need only be supposed

can be explored as a sensibility, with virtue and without humor, but that by itself isn't only an adhocist characteristic (163, 164).

e) **Nostalgia.** Old things can be recognized. Old associations are respected, if perhaps confounded by new usage. A clothes pole for lifting hangers to a high rail in a closet can be made from a cane and a coathook; the components are explicitly familiar, "modestly" nostalgic, while the new hybrid form destroys the original functions of the parts (165).



(165) Sawing a cane tip at a bevel and attaching a coathook makes a clothes pole for lifting hangers to a high rail (Nathan Silver, 1968). The familiar components are nostalgically present in a transformed new object





(166) Magazine photograph masks in bed  
(Roddy Maude-Roxby, 1971): "anybody" could  
have done this

f) **Identification.** Personal familiarity is evoked when ordinary things are recognized. A steering wheel can make a plane or boat seem as easy to steer as a car; rhyme and traditional verse forms may reassuringly seem to make "poetry," quality notwithstanding. An adhocist sensibility could reinforce or contradict personal identification, as Kienholtz does when he shows a cluttered dressing table sprayed with oil and filth.

g) **The superiority of the perceiver.** Caused by the supposed humility of the object, so "unaffectedly" revealing about its formal debts. Once shown the way, "any child can do that" (make the adhocist artwork). In a threatening world how comfortable to know the secret, or how the trick is done: there is no secret, folks (166). Do it yourself.

h) **The principle you love to hate.** One can admire the subversiveness of adhocism's impurity, or, indeed, the seductive allure of all of the above. Adhocism insists upon attention if only (or precisely) because it has been ignored and despised. It starts at the bottom as the underdog, the Other, full of humpty-dumpty inversions of unattainable ideals, and presumably disabling methods. The sensibility might abound in suggestions that lead to truth through wickedness, wisdom through error, seriousness through camp. As Blake decided, "the road of excess leads to the palace of wisdom." Unprom-

ising material may be called so by those looking for routine promises. (See 131, 135)

Of the many arts that already exploit considerable adhocist modes and resources, five in particular give evidence that the sensibility is already beginning to exist.

### The theater

Whatever the primary theatrical mode, performance has always depended upon improvisation and the use of props as resources. In modern theater these have become increasingly important.

The way Keaton used props and settings as visual jokes in films has already been mentioned; in *The Gold Rush* Chaplin stuck rolls on forks and moved them so they became little dancing feet. Chaplin's cane was constantly being pressed into service as a back-scratcher, a pool cue, a leg-tripper, a stick to save someone from drowning, etc. And that is of course why men once carried sticks—to serve all such purposes, not because they were lame. Props are even more remarkable resources for actors on a stage. They become highly noticeable as expressions, along with voice, gesture and mood; but unlike these, props are extensions that externalize the self in a way that can seem magical. Chairs, telephones, cigarettes are made to come alive *ad hoc* with an actor's happiness or doom.



(167) Richardson Morgan, Ben Benison, Roddy Maude-Roxby and Richard Pendrey of *Theatre Machine*. Benison and Maude-Roxby are improvising a dialogue, while Morgan and Pendrey move them through suitable actions *ad hoc*, though typically a funny few seconds late

Improvisation includes improvised props: glove puppets, paper bags, street theater. Keith Johnstone's *Theatre Machine* company in London performs a seemingly endless collection of improvisations. These are knowingly structured according to adhocist principles; unlike pure improvisation, their work doesn't depend only upon the actor, but circumstances are directed to supply details within a context (hence the appropriateness of the company's mechanistic name). In one routine of theirs, the performers have a deck of cards with a sentence of dialogue written on each; the cards are shuffled, and two or more people read cards in turn, trying to make dramatic sense of them:

"I know your mother."  
 "Oh, stop it."  
 "Kiss me."  
 "We'll have to dig our way out."  
 "You told me a different story yesterday."  
 "I don't want to hear."  
 "I've just killed him," etc.

From the mouths of the performers, each successive *non sequitur* delivered with panache is not only amusing but also reveals how spoken meanings can be extended or even cancelled by expression and action.

Unlike many other improvisation companies, the group uses props extensively: balloons,

masks, robes, toys. Any member might be told by Johnstone, who sits on stage as interlocutor, to pick up a prop and use it for something, then hand it on. The first actor might pick up a long balloon and mime the playing of a trumpet. He hands over the "trumpet" to the second actor, who turns it into a crutch and hobbles around with it. He hands over the "crutch" to the third, who unscrews the top—the balloon breaks. Later, a rope quoit put in the mouth becomes a diver's mask when swimming motions are added. Each *ad hoc* transformation involves a logical jump or visual pun that finds agreement or acceptance, with objects used as resources for new objects.

In a similar game of discovery, this time involving feedback to the actions, two performers are told to mime something in slow motion while a third comments upon the action. They sometimes do complex and competitive things, but the best scenes involve very simple slow-motion actions, like stacking chairs on tables. Here the commentator has time to describe the action and circumstances minutely:

And now he's picking up the chair by the top. He's swinging it up in that easy swing that has made Zabrewski's restaurant a great place to be at closing time. [Suddenly the actors have names, and are in a real place. They begin to respond to these circumstances.] Young George Zabrewski is more careless about the way he puts chairs down on the tables. He prides himself on being





(168) Maude-Roxby speaks while Morgan waves arms, reaches for handkerchief, unzips fly, etc.

able to stack twice as many chairs as his Dad. [The actors have a relationship; they begin to compete with each other . . . etc.]

A scene like this involves triple discoveries, with each performer supplying information to the others that he then uses in some generally unexpected way; successive transformations take place.

Prior instructions cue the audience as well as the actors. An instruction given by Johnstone at the start of a dialogue scene may be, "Play two businessmen, each of you trying to get physically lower than the other person." Animated by this mad order, the two performers find excuses *ad hoc* for sitting, slouching, reclining, and finally inspecting the carpet lying prone. The invention of a particular instruction ("Say 'I love you' as soon as you can") drives the scene along, giving it an urgency it could never otherwise have.

Most of the *Theatre Machine* company's work shows adhocist sensibility. A primary attraction of their performance, and a main source of its humor, lies in the fact that the audience generally knows what to expect in advance, and so can empathize with the limitations and constraints placed on the actors. If a scene has a set of instructions only for beginning and end, the shortest distance between the two points becomes a matter of aesthetic enjoyment, and the skill of the performers has not only to do

with their usual abilities but with the *ad hoc* resources of props, mime or language they might employ to achieve the desired result. Thus, as in do-it-yourself or other inventions, the adhocism here can be admired aesthetically for its speedy resourcefulness.

## Films

According to Eisenstein, montage is the basis of film making. Montage is assembly. Eisenstein's notion that montage should express conflict<sup>1</sup> suggests the struggle among parts sometimes seen in *ad hoc* hybrids, but Eisensteinian montage in his own films is not necessarily adhocist at all; in fact the theory of Pudovkin, reviled by Eisenstein, which imagines effective montage to be a matter of linkage rather than conflicts, might be just as persuasive and is an even closer relative to adhocist thinking.

A true adhocist film is easily made by editing available footage. Historical documentaries are usually made this way, and so are freaky juxtapositions of non-events in newsreels. In ordinary commercial films there have been more than a few pathetic examples of film producers supplanting the directors' intentions with versions of their own edited *post hoc*, made from rough footage which was meant for different purposes. One can envisage too a creative film made along adhocist lines. Anthony Scott made *The Longest, Most Meaningless Movie in the World* from scrapped footage gathered from wastebaskets in London's Soho, spliced together in chance order, and in defiance of audience boredom. Scott's published *faux-naïf* deprecations of his film as "junk" and "rubbish" suggest all the more that he had aesthetic intentions,<sup>2</sup> but it is possible also to conceive of *ad hoc* film projects with full intentional participation and verve. A Hollywood scavenger—or someone in the studios where old films are fiendishly cut for television—could produce a less sleep-inducing example. One wouldn't even be required to actually have the strips of film in hand; for planning purposes just knowing that

1 Sergei Eisenstein, *Film Form*, pp. 36 et seq. New York, 1949.

2 Anthony Scott, "The Longest, Most Meaningless Movie in the World," *Cinema*, October 1969.





(169) Magical assemblage in MGM's *Invitation to the Dance*, 1954

such strips already exist would be enough. A screenplay for an adhocist film could consist of editorial directions like "First part of the scene where Gloria Grahame meets Humphrey Bogart in *In a Lonely Place*; cut to *Shane* riding away . . ."

A film already made that is not too different from this is *A Movie*, by Bruce Conner, a U.S. underground film maker. Conner spliced together very familiar stock shots of the Hindenburg disaster, the Tacoma Bridge collapse, motorcycle cross-country races, Western chases, air combat films, "nudie" shots and frame-count symbols. This was scored to familiar music. Films made cheaply without a specially commissioned score inevitably have the typical adhocist requirement of making an improvised part fit with a given part. Kenneth Anger's *Fireworks*, *Scorpio Rising* and *Inauguration of the Pleasure Dome* all seem to have been cut to suit the music being played, which makes them *ad hoc* to that degree, whatever the director's otherwise purist intentions.<sup>3</sup> *Scorpio Rising*, however, is intentionally adhocist besides, as are Anger's *Eaux d'Artifice* and *Kustom Kar Kommandos*. Each is made with long significant "associative" montage sequences around the visual themes of motorcycling, fountains, and custom cars, respectively.

3 In a different adhocist conjunction with respect to Anger, his influence is seen via some allusions and visual quotations in the British film *Performance* . . . And *Performance*, a British Film Institute publication says, is an example of *post hoc* assemblage. It was recut for the producers by "seven different editors."



(170) Norman Mailer fighting with Rip Torn at the end of *Maidstone*. Torn's "attempted assassination" with a hammer earlier in this scene had been outlined by the director, but was left to be carried out by an unspecified actor at any moment

The cinema is so essentially an art of associative linkage that one can find assemblage wherever one looks, from the amateur film maker's movie-titling kits of loose letters to the Walt Disney live-action cartoon combinations (169); not to mention the hundreds of compilation films. As a cinematic principle adhocism in films is rampant, but it also has hardly begun. A few "Andy Warhol" films were actually made by someone else, presumably as an expression of adhocist indifference to creative sources. Dusan Makavejev's commercially successful films *Innocence Unprotected* and *W.R.—Mysteries of the Organism* are collages of hilarious or incredible juxtapositions. Makavejev says that his films are born in the cutting-room, and maintains that most of his talented colleagues are lying when they emphasize the importance of their preconceptions: "good ideas" and "good scenarios." Good cinema comes out of improvisation.<sup>4</sup> In a recent article Norman Mailer talks about cutting as Pudovkin did about montage, only he emphasizes, like Makavejev, the use of improvised scenes as found objects, to be assembled for the best. Speaking of himself as editor, Mailer writes:

If he lost what he desired in one scene [through missing preconceived shots], he found himself compensated in another. As the months of editing went on, he would feel at times like a sculptor discovering his statue. The chisel could

4 David Robinson, "Joie de Vivre at the Barricades: the Films of Dusan Makavejev," *Sight and Sound*, Autumn 1971.

not go where it wished, but there was a statue to be disclosed if one would follow the veins of the stone . . . *Maidstone* was a film which had been made out of the materials of its making, a movie which had had almost no existence in plans or on drawing boards or detailed budgets before it was begun . . .

Mailer thinks of having "written" the film with strips of film rather than words, the pieces of film being his dictionary: "He had created *Maidstone* out of the given." For vocabulary "it does not matter what is used" since one can expect the result of such a method to be metamorphic. As an *ad hoc* work, *Maidstone* ended up being "as much better than the conception with which he had started, as it was inferior." Mailer's film-making theory is completely adhocratic, because he not only describes using "given" pieces as parts, he has a concept of resourcefulness, improvisation, time-saving efficiency, as my italics show:

The good cutter is like a very good skier. *He does not study the trail ahead, he sets out down the mountain, makes his turns as they come, does his checks, his drops into the fall-line, his traverses into the hill, then tips around and down again. It is a beauty to watch. If we add the knowledge that he is in a race, the beauty is hardly diminished and our tension is certainly increased.*<sup>5</sup>

## Literature<sup>6</sup>

The adhocrism of literature is founded on the nature of language. Speech is made up of phonemes combined and arranged according to the accepted syntactic structures of a given language. Because it binds sound to significance, speech, like every formal medium, can never be completely puristic nor completely *ad hoc*. Everyone reorganizes standard syntax from

time to time, inverting sentences and phrases,<sup>7</sup> but "new" structures are usually ones already explored by the language. The more complex the statement, the greater the freedom of the speaker to come upon or to create a new utterance (and with it a new perception).<sup>8</sup> Noam Chomsky takes the infinity of combinations of words and symbols within the apparently closed structure of a language to be a major proof of the liberty of the intelligence.<sup>9</sup>

Schizophrenics, poets, "street people" and propounders of new theories redefine old words or coin new ones to show how inadequate conventional language is to their ideas. Every new movement tries to capture charged words like "nature," "freedom," or "form" to redirect them towards its own structure. If the new word is derived from pieces of old ones, as most new words are, it drags their implications with it. Gerard Manley Hopkins needed "inscape" to describe his special sense of imagery. Operations theorists want "interface" to capture something that "relationship" or "connection" apparently cannot. Many such *ad hoc* words and phrases add to the resources of language and are gradually absorbed by it. Others are strictly temporary (like "quissing" for traitor or "shine" for a black man) and still others impoverish language by being less expressive than the words they may drive out.

*Ad hoc* coinages flourish among messianic theorists, revealing that the practical adhocrism of new words can be highly seductive. By replacing familiar vocabulary with a new, unfamiliar word strongly associated with a person or idea, the writer influences his reader more than he might otherwise. As in all seductions, the intellectual seducer uses any means *ad hoc* to gain his end. When someone is told he can "reach seventh heaven" or "attain Nirvana," his skepticism, spurred by his familiarity with these rhetorically exhausted terms, is likely to cancel his wish to be redeemed. But when Scientology promises that after paying only \$800 he can become a "clear," that's another story.

7 In *The Growth and Structure of the English Language*, p. 11 (1905; New York, 1956), Otto Jespersen's examples put syntactic variation in prose at a bit over 10 per cent.

8 See Roman Jakobson and Morris Halle, *Fundamentals of Language*, p. 60. The Hague, 1956.

9 *Cartesian Linguistics*. New York, 1966.

5 "A Course in Film-Making," pp. 225-30. *New American Review* 12, 1971.

6 This section was written and contributed by Helen McNeil. Dr. McNeil is Lecturer in American Literature, University of East Anglia.

The new jargon is horribly refreshing because it implies that the peculiar serenity of a "clear" has never existed before. Whoever uses the word "clear" to mean spiritual peace has had his expressive vocabulary captured by an ad-hocist effect.

When the seductions of *ad hoc* coinages are too heavy-handed or frequent, the listener recognizes that he is dealing with advertising or insanity. On American television only Alka-Seltzer cures a mysterious disease called "the blahs," but one accepts the convention that "the blahs" were invented *ad hoc* to sell Alka-Seltzer. Wilhelm Reich argued that concentrated "orgonic power" might cure cancer, but readers might conclude that orgonic power, like the blahs, is the invention of a diseased imagination. In fact, Reich's excessively improvised vocabulary and symbolism were once taken as sufficient proof that he was insane.

In spite of Empson's assertion that deep ambiguity marks "a division in the author's mind," J. H. van den Berg<sup>10</sup> and R. D. Laing<sup>11</sup> have defended fantastic associations of images and sounds as valid experience, since the piecemeal, disjunctive commentary of the schizophrenic reflects his complex reality with amazing precision. In "word salad," a schizophrenic symptom, words and wounds are continuously invented *ad hoc* without a conventional syntactic structure. This kind of split between aim and result might be called phenomenal adhocism—something taken by others to be *ad hoc* whether or not it was so intended.

If they are accepted and spread, *ad hoc* slang expressions can become code words in social discourse. The black militant attacks "all you mothering Toms and oreos" for listening to "that ofay rap," defining his audience by an exclusive and excluding vocabulary. The white hippie is "spaced out" from "groovy outasight" sounds: "Too much! Far out! Stoned, baby!" Because these codified expressions come to say little more than "I'm here, I belong," they are subject, like all conventions, to satire by the radical adhocism of deliberate non-sense:

10 *The Phenomenological Approach to Psychiatry*. Springfield, Illinois, 1955.

11 *The Politics of Experience*. New York, n.d.

'Twas brillig, and the slithy toves  
Did gyre and gimble in the wabe;  
All mimsy were the borogoves,  
And the mome raths outgrabe.<sup>12</sup>

Jabberwocky is a nonce language that has the same phonemic and syntactic structure as English, but it was invented by Carroll to mock conventions of English style by always almost making sense. Its nonsense is only a highly elliptical form of sense. The *ad hoc* language attacks the accepted language from outside, just as Carroll's *ad hoc* monster, the Jabberwock, deflates epic monsters.<sup>13</sup>

Nonsense constantly thrusts new or distorted associations at the reader, but in the unsense of utterly conventional speech everything is predictable and everything is taken for granted, as Dr. Johnson demonstrated in his rhyme against rhyme:

I put my hat upon my head  
And walked into the Strand.  
And there I met another man  
Whose hat was in his hand.<sup>14</sup>

The dreariness of ballad meter, dull rhymes, an impeccably predictable syntax, inexpressive vocabulary, and a trivial subject (absolutely essential, as Wordsworth noted)<sup>15</sup> all combine to produce a brilliantly un-*ad hoc* quatrain. Most conventional banality is not so amusing.

Is there any real purism in language? For some writers, particularly in the symbolist tradition, speech must escape from tarnished usage into a newly created world. Mallarmé resolves to "donner un sens plus pur aux mots de la tribu." Imagination should also be absolute. Coleridge is wary of fancy because it merely combines and recombines remembered images. "Primary imagination," according to Coleridge, is the finite version of the infinite "I AM," a pure creation *ex nihilo*. But with "secondary imagination," the forming of pure

12 Lewis Carroll, *The Humorous Verse of Lewis Carroll*. New York, 1933, reissued 1960.

13 Even in Carroll, nonsense is composed largely of *ad hoc* recombinations of sense. "Brillig" is chilly-brilliant and "slithy" is lithe-slimy. Absolute nonsense calls for a computer randomly filling in phonemic slots.

14 Samuel Johnson, *Poems*, Yale Edition, vol. vi, p. 269. New Haven and London, 1964.

15 Preface to the *Lyrical Ballads*.



inspiration into art, *ad hoc* compromises creep back.<sup>16</sup>

Language really flourishes when writers deal with the used-clothes quality of words, images and phrases, instead of trying to ignore it. New statements and images spring out of the rubble of old ones. In "The Man with the Blue Guitar," part of which defends romantic transformation of everything it touches, Wallace Stevens also says:

I cannot bring a world quite round  
Although I patch it as I can.

I sing a hero's head, large eye  
And bearded bronze, but not a man,

Although I patch him as I can  
And reach through him almost to man.<sup>17</sup>

Stevens's poem is an *ad hoc* patchwork of old images and the poet is "a shearsman of sorts," not a weaver. He recuts used bits and pieces of images found in the cultural storage bin that Yeats called the *Spiritus Mundi* and Jung called the racial unconscious. As another Stevens poem puts it, the poet is stuck like everyone else on the dump of old images of experience, making his music with whatever he can find:

One sits and beats an old tin can, lard  
pail.  
One beats and beats for that which one  
believes.  
That's what one wants to get near.  
(*Collected Poems*, p. 202)

It is possible to take the inevitable "used" quality of language literally, and put together a tribute to imagination out of a magpie-like collection of bright impure objects from other cultures, as Ezra Pound does in *The Pisan Cantos* using Mussolini, Christ, Eliot, Roman history and religion, Pound's biography, etc.:

The enormous tragedy of the dream in the  
peasant's bent shoulders  
Manes! Manes was tanned and stuffed,  
Thus Ben and la Clara a Milano  
by the heels at Milano  
That maggots shd/ eat the dead bullock

16 S. T. Coleridge, *Biographia Literaria*, ed. Shawcross, vol. 1, chap. xxi, p. 202. Oxford, 1907, reprinted 1962.

17 Wallace Stevens, *Collected Poems*, p. 165. New York, 1954.

Dark  
Above the  
water hang the  
loud  
files  
Here  
I am  
I am  
I am  
What  
When  
Where  
Is it  
Of where we take shape in the dark air  
this object bares its large awakening  
ripples of recognition that will  
loud darkness up into light  
even after this bird this hour both drift by atop the perfect and vibrant one  
already passing out of sight  
toward pet-untroubled reflection  
this large bears its object darkening  
into memorial shades Southern hills of  
light No of water Or something across  
water Breaking up No being gathered  
seen let by then a seen will have  
gone Ten out of mind into what  
next  
pale  
hush  
of a  
plate  
past  
sudden dark as  
if a seen  
being

(171) "Swan and Shadow" from John Hollander's  
*Types of Shape*, 1967

DIGENES, δειγνός, but the twice crucified  
where in history will you find it?  
yet say this to the Possum: a bang, not a  
whimper,  
with a bang not with a whimper,  
To build the city of Dioce whose terraces are  
the colour of stars.<sup>18</sup>

By approaching his subject from several cultural perspectives at once, Pound surrounds it.

Looking at the circumstances of composition, modern literature has made almost a fetish of adhocracy, as if it were unpoetic to admit that a novel or poem had been planned beforehand. Occasional poetry and confessional poetry are both reactions to events *ad hoc*. You happen to be there, and so you write about whatever strikes you at the time. Wordsworth begins the tradition of occasional poems with titles like "Lines left upon a Seat in a Yew-Tree, which stands near the Lake of Estwaite, on a desolate part of the Shore commanding a beautiful Prospect." Even at a climactic moment in *The Prelude*, Wordsworth insists, "In truth, it was an ordinary sight."<sup>19</sup> James Wright titles a poem "Sitting in a Hammock in William Duffey's Farm, Pine Island, Minn." William Carlos Williams writes a poem about raiding the icebox.

*Intentional* adhocracy flourishes in composition when flexible means make the thematic end

18 Ezra Pound, *The Cantos*, Canto LXXIV, p. 3. New York, 1948.

19 *The Prelude*, Book XII.

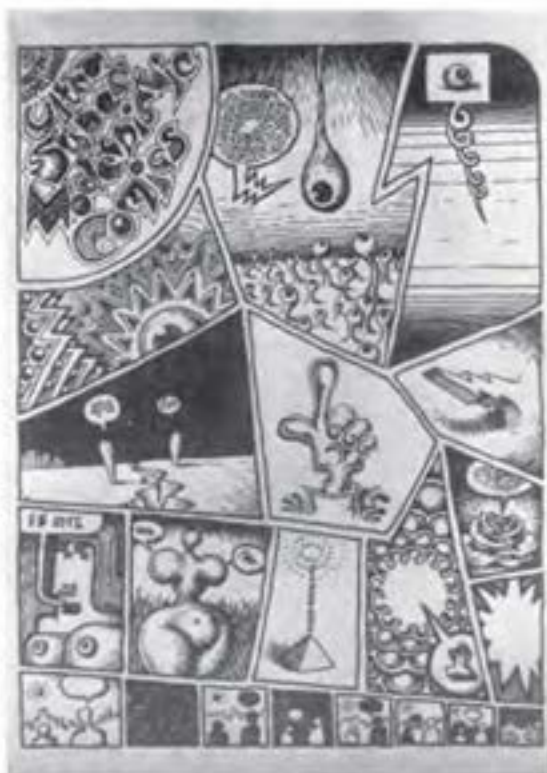
ambiguous. William Burroughs types his scenes on separate sheets of paper which he reorganizes randomly. Jack Kerouac claimed he wrote a novel by inserting a roll of paper toweling in the typewriter and typing until it was used up. Raymond Queneau's *Cent Mille Millions de Poèmes*<sup>20</sup> is ten sonnets with each syntactically complete line printed on a separate strip of paper, so that the reader can connect any line from any poem with any other line, creating his own sonnets *ad hoc*. Tristan Tzara made poems from words pulled out of a hat. In Queneau and Tzara, surrealist *ad hoc* form forcibly broadens one's concept of what form can be.

"Free association" and "free verse" in modern literature appear to be *ad hoc*, but only until the underlying structure is discovered. Genuine adhocism is nourished more by the constraints of traditional verse forms or genres like the sonnet, the ballad quatrain and the pastoral elegy, when the choice of a word is determined not only by its meaning but also by its stress pattern (will it fit into an iambic pentameter?), its ability to fit a rhyme scheme, and the appropriateness of its diction. Much of the delight in reading a shaped poem, like Herbert's "Easter Wings" or John Hollander's "Swan and Shadow" (171), comes from appreciating the author's skill in minimizing the effects of what must have been *ad hoc* choices to fit the exigencies of line length.

Paradoxical *ad hoc* associations provoked by the formal requirements of stress, rhyme and syntax are the root of eighteenth-century wit. In Pope's poetry two unlike words can be relentlessly yoked in meaning by a parallel sentence structure: in "An Essay on Man," "And now a bubble bursts, and now a world." These events are equal in importance, like the mock-tragic moment in "The Rape of the Lock," "When husbands, or when lap dogs breathe their last."

But if odd jumps from formal similarity to similar significance are cause for praise in wit,  
20 Paris, 1961.

(172, 173) Copious stylistic references in a page each from Robert Crumb's *Head Comix* and *Plunge into the Depths of Despair Comics*





(174, 175) Chased silver-gilt mounted Nautilus shell, and carved coconut shell similarly mounted

why are punning jokes barely tolerated by adults? "Who invented the miniskirt?" "Seymour Thighs." "Who invented the bed?" "I. M. Tired." I suspect puns are rejected because it is neater and less threatening to believe that every word has a reliable signification, that it is not suddenly taking on a will of its own and attaching itself *ad lib* to other suppressed meanings. The high analogies of meaning seem tarnished by the low analogies of sound. Thus "Freudian slips," a subgroup of sexual puns, endanger the speaker because they communicate more about his secret associations than he wants others to know.

## Art

As in literature, some adhocist ideals and effects have long existed in the fine arts, but perhaps have been consciously intended only since Duchamp. The evolution of style is *ad hoc*, and since, inevitably, style transforms content and content modifies style, probably it was only a matter of time before explicit adhocism appeared in content (172, 173).

What is usually meant by style in art is the complex of traits that characterize works as a group or sequence. The concept is most useful because in a cultural system a new work must somehow refer or relate to other works in order to be granted its due, or even to be understood to have meaning at all. Any work not purely original, done in mid-air by an angel, starts



(176) Albrecht Dürer, *Melencolia* (1514): an accumulation of symbols of trial

out with considerable cultural terms of reference. These are the references available, and some are fated to be associated with the work *ad hoc* because to ignore all of them means oblivion for the work. As a compound characteristic, style therefore amounts to rudimentary practical adhocism: only rudimentary because a conscious scramble after available resources isn't usually what takes place. It's fair to say that many art critics and theorists would take a line more like Herbert Read's and reject the very notion of practical adhocism, insisting that a painting or sculpture can only be seen and criticized as an organic, self-contained work. (Gautier, for example, declared, "art differs from science in this: it begins again with each artist . . . there is no progress in art."<sup>21</sup> Croce implied the same. Many romantics denied that an artist even stood on the shoulders of his predecessors. A conception of each artist starting alone and unencumbered in his culture-free cosmos may help a critic who wants to argue that Lichtenstein disgraces the memory of Raphael.)

21 See Thomas Munro, *Evolution in the Arts*, p. 26. Cleveland, 1963.





(177) Hieronymus Bosch, detail from Prado *The Hay Wain* (1500-2). Sinners atop the wain are nose-trumpeted to by a disjunctive devil of vanity

Some other ideas about art give the *ad hoc* aspects of style a heavier cultural play. Malraux's famous "museum without walls" is the Western superculture—exemplified by the illustrated book—that can pick and choose *ad hoc* among all the arts and cultures of the past and present. McLuhan more recently has declared the same sort of thing, calling attention to the eclecticism of style implicit in "the global village."

While practical adhocism in art is mainly determined by questions relating to style, intentional adhocism largely depends upon questions of content, because intentional adhocism provides a tool for transformation, inclusion, ambiguity, symbolic reference or reinforcement. Intentional adhocism is far less diffuse because an artist's collection of parts is visibly assessable. The deliberate combination of genres started in a programmatic way with religious reliquaries and ornamental art where bones or other precious things were "set" and encrusted to make their explicit didactic reference. Settings are new quoted contexts. A jeweled Bible; an illuminated Book of Hours; a salt-cellar made of a gold-mounted shell: each addition called attention to the value or beauty of the basic component by comparison with the embellishment (174, 175). Sometimes bald associations were inherent in the content; perhaps the instruments that tortured a saint, or a Renaissance scholar's astrolabe and compasses.



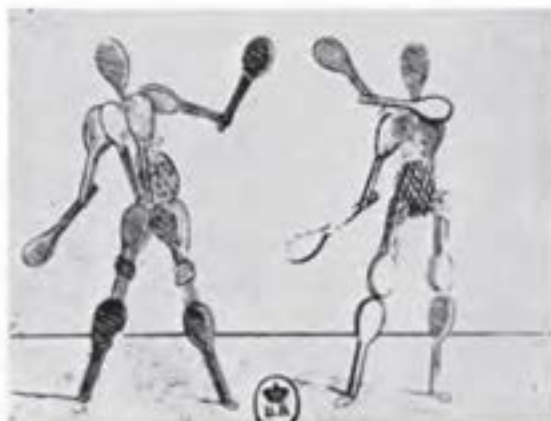
(178) Landscape turned into head by a follower of Arcimboldo (late sixteenth century)

Dürer's *Melencolia* is essentially a collection of associative cultural objects intended to add up to a romantic conclusion about the futility of life (176).

The tradition of intentional adhocist simile and ambiguous juxtaposition is also old and rich in art. Fantastic allegorical paintings of Bosch and Huys depict hell and diabolical temptations with wickedness shown as disjunction: animal heads on people's bodies, human heads sprouting between legs, anthropomorphic demons with part grafted on part—"Sensuous acrostics," in one critic's phrase (177). Arcimboldo's double images of the 1560s (see 11) started a tradition of composite pictures with portrait heads that turned—when turned—into landscapes (178). Dürer's pupil Erhard Schön had earlier produced puzzle pictures that looked like landscapes until viewed at an acute angle, whereupon random diagonal lines became portraits (see 156). Why did painters conceal lines amid other lines or add thing to thing? Sometimes the concealments were politically necessary, perhaps to distort the homely features of a king without appearing to do so. Fantastic allegories may have depicted demons as the collections of parts because the world was said to contain such monsters, or out of personal vision, or because they corresponded to available explanations of holy miracles and occult phenomena. In the seventeenth century Nicolas de Larmessin in France made engravings of people transformed by their costumes (179), and G. B.



(179) "Miller's costume" from *Habits de Métiers* by Nicolas de Larmessin (late seventeenth century)



(180) An etching from Giovanni Battista Bracelli's *Capricci or Bizarre*, 1624



(181) A rare plant from Edward Lear's *Nonsense Botany*



(182) Hans Jordaens, III, *A Collector's Cabinet*, ca. 1640. A self-conscious incorporation of frames into the picture is basic to adhocist sensibility, since a *sense of context* is crucial. "I add this to this" is implicit; the wall becomes a collection of landscapes and boxed perspective views

Bracelli in Florence produced forty-five etchings of *Capricci* showing figures made of cupboards, whetstones and tennis paddles (180). Both of these artists were satirical and moralistic in their intentional adhocism, as was Edward Lear in nineteenth-century Britain with his drawings for *Nonsense Botany* (181).

In the eighteenth century the tradition of part-transformations continued in graphics, usually for satirical purposes. Williams in England and Granville in France depicted people as gardening tools, birds, reptiles (183); Granville and Gaillot are among the progenitors of Walt Disney's anthropomorphism. Political cartoon-



(183) From *Implements Animated*, "dedicated to the Carpenters and Gardeners of Great Britain." Engraved by Williams, late eighteenth century



Collection, The Museum of Modern Art, New York.  
Acquired through the Lillie P. Bliss Bequest.

(184) Juan Gris, *Breakfast*, 1914. A typical Cubist collage of pasted papers, crayon and oil

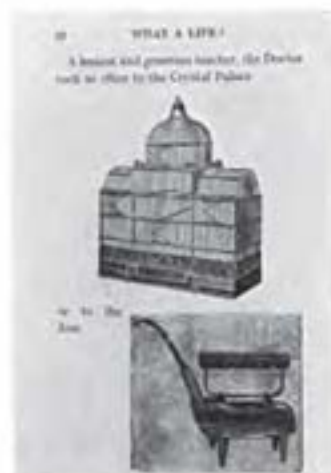
ing became largely collections of parts used *ad hoc*, or of expediently distorted physical features.

In the twentieth century full-blown intentional adhocism at last emerged. Collages were invented by the Cubists (184). An amazing example of intentional adhocism somewhat outside the accepted realm of art was a picture book published in 1911 by Morrow and Lucas called *What a Life!* (185, 186). A simple story for children was illustrated with various conventional household objects cut from a department store catalogue and posed to depict other things mimetically: an electric iron on a stand is an elephant at the zoo; a coat hanger with trouser press attached below is a game of leap-frog. It is the visual analogue to the pun, the rebus,<sup>22</sup> brought for once to formal respectability. A collateral development came later in the U.S.A. in Rube Goldberg cartoons (see 155).

22



(185, 186) Three pages from *What a Life!* (1911). The illustrations, from Whiteley's General Catalogue, are arranged to tell a story about things quite different from department store goods



The Newton of adhocism in art was Marcel Duchamp.<sup>23</sup> In 1913 something happened to him: already a world-famous artist (partly because of his *Nude Descending a Staircase* shown at the New York Armory Show that year), he suddenly stopped painting in his conventional manner and began making mechanical drawings and studying probability. He made *Three Standard Stoppages*, three threads one meter in length dropped horizontally on canvases from a height of one meter and afterwards held in place with var-

23 Charles Jencks feels that Duchamp was no more of an adhocist than Arcimboldo, especially since Duchamp's purposes weren't at first explicit. I single out Duchamp because of the way culture has since read him.





(187) Assisted ready-made: Duchamp's *With Hidden Noise*, 1916

nish, giving "a new form to the unit of length." Richard Hamilton calls Duchamp's *Bicycle Wheel* the first "ready-made," that is, something Duchamp went out and bought, self-consciously signed, and proclaimed as art (156).<sup>24</sup> His *Bottle-Rack* and snow shovel (*In Advance of the Broken Arm*) are sometimes cited too as the first; it appears that "not even Duchamp would have dared" to say the *Bicycle Wheel* was art in 1913; ready-mades were first called so by him two years later. These three works, and Duchamp's later *Comb*, *Hat Rack*, *Trap* (a coat rack nailed to the floor), *Fountain* (a signed urinal), *Traveller's Folding Item* (an Underwood typewriter cover), etc., were not *objets trouvés* like other artists' work later because these were bought, presumably from what was generally for sale in shops. The hand of the "artist" didn't create, it just chose.

Two more particular distinctions of adhocism enter with Duchamp's ready-mades. The *Bicycle Wheel* is especially interesting because, unlike most of the later ready-mades (which were usually hung on string from the ceiling or nailed to the floor), it was mounted—bolted via the fork around the axle through the center of a stool. Simple part was added to available part, both "chosen" only, not designed: both were still recognizable for the parts they were.

In 1916 Duchamp created *With Hidden Noise*, an "assisted" ready-made (187), and *Apolinère*

<sup>24</sup> Richard Hamilton, *The Almost Complete Works of Marcel Duchamp* (catalogue). London, 1966.



(188) Corrected ready-made: Duchamp's *Apolinère Enameled*, 1916

*Enameled*, a "corrected" ready-made. *With Hidden Noise* was a ball of twine between two brass plates joined by four long bolts. Delphic inscriptions were painted on the plates, and Walter Arensberg, Duchamp's friend and faithful collector, was asked to insert a small object unknown to Duchamp that would rattle around inside the core of the twine—"with hidden noise." *Apolinère Enameled* was a lithographed advertisement on metal for Sapolin Enamel showing a small girl painting a bed. Duchamp painted out letters in the name and added others for his "misspelled" title, as children do to form words on posters (188).

If aesthetic intent is valid "purpose," Duchamp's *With Hidden Noise* and *Apolinère Enameled* fully contained the constituents of adhocism by 1916: the notion of adding-on, assembly, or improvisation; the continued recognition of the pieces as parts; plurality; also the facts of availability, including chance; and, in one case, fragments (pieces seen as parts). Each work is explicit about time/money constraints. All that might be missing is "articulation" and "approximation," but one could argue that both are present in both cases.

Since 1916 there have been thousands, perhaps millions of adhocist art works by hundreds of artists; Dadaists, Surrealists, Assemblagists, *Nouveaux Réalistes*—even a few more by Duchamp. Many of these are as adhocist as *Bicycle Wheel*, *With Hidden Noise* and *Apolinère*



Collection, The Museum of Modern Art, New York.  
(189) Meret Oppenheim's *Object* (1936)

ère *Enameled*, but of course none could be an art innovation again (a concept that an ad-hocist like Duchamp perhaps would have smiled at). Dada, trying to subvert all values, took naturally after Duchamp. In 1920 Baargeld was drawing on wallpaper; Joseph Cornell was composing three-dimensional still lifes not much different in principle from the collections of associative objects engraved by Dürer. Picabia made "object portraits," for example showing Steiglitz as a camera. Hausmann, Höck and Heartfield made sensual collages of newspapers, magazine pictures and reprinted photographs. Oppenheim covered a cup, plate and spoon with fur, making it the most famous tea set in the world (189). Man Ray and Wallace Putnam built objects of parts *ad hoc*. Surrealists like Magritte, after Bréton's *Surrealist Manifesto* of 1924, used intentional adhocism to revise values with surprising and fantastic juxtapositions of things and parts. If a nineteenth-century porcelain cat could be covered with flowers, why shouldn't art create things explicitly by combination?

Kurt Schwitters proclaimed Merzism, his variety of Dadaism, about 1919, and made Merz collages, sculptures and poems for the next twenty-odd years (191). "Merz" was a scrap of the word "Kommerz." Some of his values were fully adhocist:

. . . All values exist only insofar as they are related to one another and . . . to confine oneself to one material is one-sided and limited. That is how I came to form MERZ, the sum total of art in its various forms—MERZ-painting,



(190) Man Ray, *Gift* (1921)



(191) Kurt Schwitters, *Merzbild der Irrenarzt*, 1919. A portrait collage



(192) A small section of Kurt Schwitters's home *Merzbild*: gold grotto (1925)



(193) A stuffed goat and a used tire in Robert Rauschenberg's *Monogram* (1955-59). For other examples of the versatility of used tires see 123, 134, 195

MERZ-writing . . . it is my ultimate object to combine art and non-art in a MERZ-Gesamtweltbild, a world-embracing MERZ-picture. To make use of snatches of prose in poetry, of rubbishy images in my paintings, deliberately to choose inferior or bad material in creating works of art, and so on and so forth.<sup>25</sup>

Schwitters's collecting impulse was adhocist, but his *nostalgie de la boue* about "bad" material was not necessarily so. In 1924 he began the first of three *Merzbaus*, an assemblage to which he "Merzed on" elements borrowed and found (192).

In the 1950s, after a time when most art of the period was preoccupied with other values, adhocism returned in Rauschenberg's *Combines* (193), in neo-Dada, *Assemblage*, "Environments" and "Happenings." Summing up the early days of the return of *ad hoc* art, Allan Kaprow said that "artfulness" was becoming a give-and-take between the ready-made and the newly created; "a caprice of the accidental confluence of artfulness with a hundred other things 'outside' art," like:

. . . clothing, baby carriages, machine parts, masks, photographs, printed

25 Kurt Schwitters, 1918. Quoted from Ernst Schwitters, *Schwitters*. London, 1963.



(194) Part of Clarence Schmidt's *Environment on O'Hayo Mountain*, Woodstock, New York. Schmidt has foil-wrapped, painted and constructed five acres of hillside for thirty-five years: this section was built in the '30s

words . . . plastic film, cloth, raffia, mirrors, electric lights, cardboard or wood. . . . There is no apparent theoretical limit to what may be used . . . the possibilities inherent in compositions of diverse materials are still abundant to a more exploratory mind. If an artist is alert to what is becoming worn out through too much usage, or to what has become downright cliché, he can always count on being in a position to examine the fresher alternatives that still lie untapped.<sup>26</sup>

Kaprow sees himself, Dine, Kusama, Brecht and Tinguely as artists who have come to adopt this new agglomerative sensibility. He applauds perishable media, change and accident; and the fantastic endless Environment

26 Allan Kaprow, *Assemblage, Environments and Happenings*. New York, 1965.





(195) Allan Kaprow's *Yard*, 1961. An environment of tires



(196, 197) Christo Javacheff's *Packed Fountain*, Spoleto, 1968; and *Barrel Wall*, which was erected in the Rue Visconti, Paris, 27 June 1962. Christo's materials and sites, while *ad hoc* themselves, seem less important than his startling intentions

of Clarence Schmidt: a mountaintop *maquillage* near Woodstock, New York, which Schmidt carved, lighted, aluminum-foiled, painted, and filled with junk constructs (194).

Maybe weird objects added always denote intentional adhocism, because they lead to hybrid ambiguities and contradictions. But the crucial matter in looking at contemporary artists' adhocism is to decide whether components and parts are separated from their old functions without a strong implication of new ones (which would mean that they are

clearly art and not invention, for one thing). Practical adhocists don't assign new functions explicitly, and seem to be content, so far as adhocism goes, with the cultural references of their components and parts. This mainly practical sort of adhocism is typical of Warhol, Segal, Lichtenstein, Wesselmann, Johns and Rauschenberg. On the other hand, a few artists seem to be less interested in the parts of the assemblage itself, more interested in the transformations they make and where they lead to. This primarily intentional adhocism seems obvious to me in Christo (196, 197) and Oldenburg; even their borrowed practical parts (gift-wrapping or typewriters, phones, bathroom scales) aren't borrowed intact but transformed



first. Christo's and Oldenburg's actual adhocism has to do with the free-wheeling conclusions one might come to about their transformations. But this, like other such interpretations, depends upon the frame of reference. All painters hope for plural and many-sided perceptions. All Pop art is fully adhocist if it relates to the junk culture of *Kitsch*, both adapting it and commenting upon it in reinterpretation. The potential material is endless. Culture waiting to be recycled may encompass the world. Schmidt's adhocist works already even include nature, which becomes a giant artifact itself instead of being outside his "frame."



(198) Totally scavenged environments can have a breathtaking beauty, but the adhocism of poverty is tempered by later economic improvement and has no romantic attraction for those who are forced to suffer it. Casablanca shantytown, 1954 (see also 119, 120, 121)

## Architecture

*Self-conscious* adhocism in architecture came after 1913—long after—but adhocism in architecture has always been around in one form or another. One can begin with “autochthonous,” vernacular building, the purest possible example of practical adhocism in architecture. From our viewpoint in the Museum without Walls, it is tempting to look upon the humble buildings of the Caucasus, southern Italy, Mexico and the Aegean as *Clubs Méditerranées* primeval, enviably pure and simple. Vernacular building and indigenous villages are shaped in every way by the poverty of resources. They reflect the simple abilities of

communities far more orthodox and conformist than any that most would suffer for more than a month's holiday; their architecture is a direct attempt to cope with limitations, limitations that produce a convention over time. If one thinks traditional villages are “honest” it is generally because they are stark. Their repetition without monotony would be available to us if we chose to build our own houses by hand, only not all at once—one after another, so that each was adapted and constrained by all that came before. The undiluted practical adhocism that prevails in vernacular architecture is stopped only through lack of further resources immediately to hand. Any sensible man would prefer a piece of corrugated asbestos board to a thatch roof unless he got rich and could afford to be romantic (198).

“Architecture without architects” is serene and harmonious building, but its formal attractions didn't arise, as some commentators say, be-





(199) Piranesi: *Portico of Octavia*. The ruins are used as dwellings



(200) Piranesi: *Castel Sant'Angelo* (Hadrian's Tomb) in one of its interim stages of use

cause those communities were spared the aggressive ministrations of the ugly architect. The architect became necessary when choices and techniques in building became complicated. In a technologically developed culture the architect is delegated the ad hocist job of sorting through and simplifying the contending means of building.

If vernacular building using only traditional skills, resources and formal archetypes amounts to a pure, accepting sort of practical ad hocism, there is a more sophisticated and accommodating sort in buildings that are left standing after redevelopment. There the *ad hoc* impulse remains, but the culture meanwhile has changed or is changing. Within cities of the world that have been lived in for thousands of years, succeeding cultures absorb, adapt and reintegrate the ruins left by previous civilizations (199).

Piranesi made many engravings of ancient Rome as taken over by the later Romans, who built new hovels among the imperial ruins. In some parts of Rome the roofless vast interiors of public buildings became exteriors, as squares with shacks or new buildings added to the outsides: architecture inside out. Roman temples were routinely cannibalized through the centuries by the Popes, their columns, arches and vaults recycled in Christian churches. Vanished Roman landmarks left their evocative shadows in patterns of squares and streets. The shape of Domitian's stadium be-

came the Piazza Navona; Rome's Castel Sant'Angelo first was Hadrian's mausoleum. In the Middle Ages the mausoleum became a fort. Apartments for the Pope were added; now it is a museum (200). From tomb to fort to papal flats to tourist attraction—in Charles Tomlinson's words, this was essential Rome:

. . . Walls built of walls, the run-down  
Etruscan capital is a town  
Of bars and butchers' shops  
Inside the wreck of palaces.<sup>27</sup>

Likewise, the growth of medieval towns often was a characteristic demonstration of sheer, receptive practical ad hocism, with each building added onto and modified by the next. Houses were often built around urban cathedrals, then cleared away later in accommodating practical ad hocist urban renewal. And the building of the medieval cathedrals itself reveals striking ad hocism, both in intentional precept and practical commission.

In precept, work was taken in hand under the assumption that generations of canons, with varying abilities and (sometimes opposing) ideas would work out the details. There might occasionally be one *inceptor* given credit, like Peter Quivil or Alan de Walsingham, but even that title reveals the limits placed on a single construction manager's creative authority.

27 Charles Tomlinson, "Tarquinia," *The Listener*, 14 January 1971.





(201) Gloucester Cathedral, 1332–77. A *post-hoc* tower buttress added for additional support makes its nonchalant way diagonally through levels of galleries in the transept

In commission, the failure to achieve original objectives and the substitution of others were rationalized in ways that we might find funny if they didn't result in the Gothic functionalism so admired by Ruskin and others. If something went wrong, for example, supernatural causes might be cited; this was as much as to say if the building can't be made to fit the original program, change the program. In this sense, it can be said that just as the Gothic dispensed with Greek and Roman ideal rules of formal purism (it was the first conscious eclecticism), it also was indifferent to functional purism (201). Gothic building was classic full adhocism.

As adhocism had its *classic* period in Gothic architecture, classicism had an *ad hoc* period. The classicism of the Greeks and Romans was always being reworked, so in that sense it was a language whose parts could be used *ad hoc*, as Jencks notes. Then in the 18th century a small but influential school of French architects proposed visionary projects that emitted the strongest vibrations of classical purity and were adhocist as well. Two visionaries were Claude-Nicolas Ledoux (1736–1806) and Étienne-Louis Boullée (1728–99). They believed that architectural form needed to re-establish itself and regenerate itself through geometry, and so they projected pyramidal and spherical buildings and a circular ideal city. There was nothing particularly *ad hoc* about

any of these. However, along with like-minded contemporaries, they also sought an *architecture parlant*. Translated, this amounted to virtual mimesis: the imitation of forms as a manner of expression; for example, their colleague Lequeu seriously intended a stable in the shape of a cow. Hence when Ledoux proposed a house for a Director of Waterworks, it was shaped like a cylinder on its side pouring water; a classic bit of geometry applied *ad hoc* through circumstances and symbolic appropriateness (more or less).

Boullée's project for a Temple to Nature was an almost complete microcosmic sphere, enclosing an interior hemisphere made of unworked stone that represented raw nature, like an eaten half-grapefruit below a rounded heaven. Both Ledoux and Boullée designed projects for bridges with the bridge abutments disconcertingly taking the form of boats. External metaphors strictly irrelevant to function were repeatedly introduced *ad hoc* (a wood-cutter's house done as a pyramid of stacked wood). Practical projects weren't overlooked: a visionary brothel of Ledoux's was to be shaped in plan like a penis with testicles (204), although—and this is the wit of his adhocism—the perspective only reveals a composition of columns, half-cylinders and pitched roofs.

Ledoux's and Boullée's symbolic adhocism is important because it implied that a building could be expressive *in toto*, the most important lesson to be read today in contemporary architecture. Coming down from their designs (fig-



(202) Étienne-Louis Boullée's Temple to Nature project: the appropriate symbols become the building

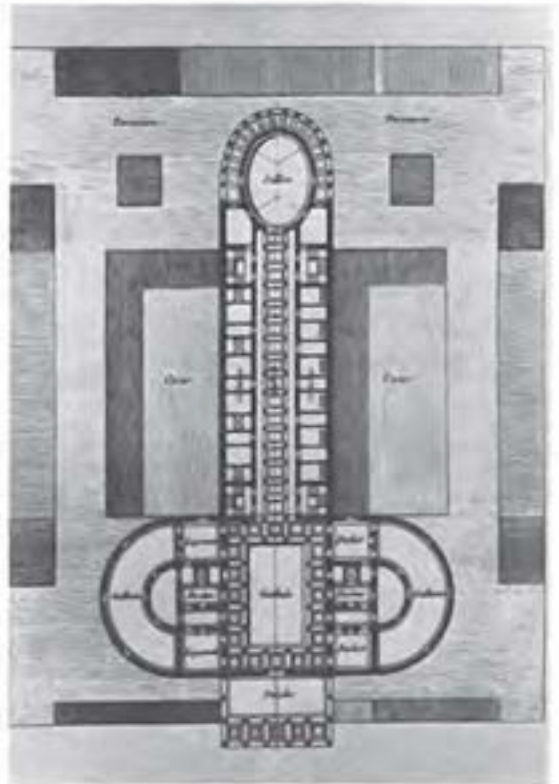


(203) Claude-Nicolas Ledoux: Pont de la Loue project. The bridge bays are "trusses" of crossed oars, the abutments contradict their purpose by seeming to float. Mimetic adhocism overwhelms every appearance of functional necessity

uratively and literally) are hot dog stands shaped like hot dogs, and the mannered complexity of the new Boston City Hall which manipulates the given program to "express" political functions.

The heritage of Ledoux and Boullée also informed stylistic revivals and eclecticism in the nineteenth century. As the close relations disappeared between explicit architectural form and the culture at large, leaving architects and clients free to choose their expressive mode, choices were often made on the basis of "appropriateness" to the type of building wanted: a bank or library might be classical, a church or railroad station Gothic. A country house or school could be either, depending upon how one felt about living and education. The modes came to be selected very freely and were even mixed up to produce contrasts and attempts at perfection through each detail (eclecticism). Some architects like H. H. Richardson specialized in a particular mode—neo-Romanesque in his case—and mastered all problems within that mode.

The more recent heritage of architectural purism has kept adhocism down. When Walter Gropius merged two schools in Weimar to form the *Staatliches Bauhaus* in 1919, he wanted to take a strong position against anachronistic revival styles and purposeless decoration; to train young architects to think anew; to look at and start design again from the beginning. With this fundamentalist approach he and the



(204) Ledoux's Oikema project: a brothel. Though its shape is functionally gratuitous, the plan surprisingly "works." Mimetic adhocism exploits the fact that many approximations to a set requirement will do



Bauhaus began their work: Naum Slutzky, in charge of jewelry-making, later declared, "We started by making the hammers." The idea of education proceeding from a clean slate had its design counterpart in the doctrine of "pure functionalism." More than one famous teacher demanded it from his architectural students. "Pure" functionalism was supposed to be entirely alien to aesthetics, although for better or worse this proved a cultural impossibility.

The Bauhaus situation was not unique. A broadly based movement for reform in environmental design had begun in Germany earlier at the *Deutsche Werkbund* in 1907, insisting upon originality in crafts as an ethical principle. Le Corbusier published *Vers une Architecture* in 1923, maintaining that architecture had to come to terms with technology, and demanding courage from architects instead of compromise. All of these, as well as Theo van Doesburg of the *Stijl* group, the ambitious but short-lived Russian Constructivist group, and even Frank Lloyd Wright in America, agreed at least upon one thing in the precepts they eventually set before the public and architects to come: compromise and expediency caused corruption in design. To face the overwhelming pace of industrialization idealism was needed; purism, and the courage to start anew. Throw out the tradition, ignore previous designs, begin again. Through the next two generations the modern movement in architecture often faltered in practice, but never wavered in this principle. Even when eclecticism was long gone and explicit ornamentation was creeping back into buildings (this time carefully "articulated" away from the structure), the buildings of the modern movement held adhocism, by whatever name, to be a villainous idea—one calculated to subvert and ruin the hard-won gains of the "heroic period" of modern architecture.

Yet before, during and after architecture's modern purist period, a subversive kind of adhocism stayed around. This was agglomeration, or making something out of many collected bits in the *ad hoc* spirit of demonstrative acquisition. Agglomeration has a long history. Some Roman rustic buildings, deliberately crude, were made up of bits of rough stone acquired by the builders locally. *Rocaille*, the root word of Rococo, refers to agglomerative building from unhewn rock or shells. German Rococo



(205) *Magdalenenklaus*, Nymphenburg Gardens, Munich (ca. 1700). Agglomerative surfaces evoke caves in rooms on the ground floor



(206) Ferdinand Cheval's *Palais Idéal* in Hauterives, Drôme



(207) Detail of Watts Towers, Watts, Los Angeles, built by Simon Rodia





(208) Antonio Gaudí: agglomerative karyatids in Güell Park, Barcelona (1900–14)

palaces often featured *Grottenwerk* rooms and pavilions; these were either ground-floor vaulted chambers decorated to resemble caves, or rustic garden houses, stuck up with found pieces of small stones, shells, bits of glass; a *maquillage* of art and nature rather different from the entirely artificial Rococo agglomerations in Munich and Potsdam. Something about agglomerative assembly attracts a certain obsessive human temperament. When Alexander Pope dug out and decorated *ad hoc* a modest grotto underneath his house at Twickenham, he urged the viewer to "Approach. Great Nature studiously behold!"<sup>28</sup> in order to take in his microcosm of "unpolish'd Gems," marbles, spars and minerals. Ferdinand Cheval, a postman of Hauterives, built himself a *Palais Idéal* (1879–1912) out of pieces banal. By piling stone upon stone he created a fantastic Angkor Wat of the imagination, which may tell something also about the action principle hidden in the past at Angkor. Photographers are usually diffident about showing Cheval's vulgar agglomerative karyatid women, but they also reveal some of the forces animating his fantastic dream (206).

Simon Rodia's (or Rodilla's) towers (1921–54) in Watts, Los Angeles are very different in style, made of pottery fragments, bathroom tiles, corncobs, shells, etc., bedded in cement on scrap steel and wire (207). To a visitor, the

28 Alexander Pope, "Verses on a Grotto," *The Poems of Alexander Pope*, Twickenham Edition, p. 707. London, 1963.



(209) A Victorian personal collage, ca. 1870

overall formal intentions seem subservient to the practical adhocist principle, which is typical of agglomerative architecture; but in silhouette, Rodia's towers are strongly reminiscent of Antonio Gaudí's *Sagrada Familia* in Barcelona. Gaudí, an architect, was another who made an artistic fetish of objects retained, reused and displayed; he applied broken china and *rocaille* throughout his Güell Park (208), in many houses, and in the towers of the *Sagrada Familia* itself, using junk as a rustic mason would use stone. One reads these examples as an art of "this as that," something standing for something else, but I suspect these creators did not see it wholly in a metaphorical light. The pieces seem precious acquisitions on display. So it is with Clarence Schmidt; so it was with the ornament of jeweled books and reliquaries, and in the collections of silver-framed photographs, antimacassars, souvenirs of far-off expeditions and gifts from monarchs that charmed visitors to British palaces in the nineteenth century, and to the Crystal Palace itself. Beyond innocent agglomeration, the notion of a nostalgic personal collage (or montage) as decoration has today taken hold until it often *replaces* decoration in young people's rooms and pads. The ordinary principle of *House and Garden* interiors seems absurdly impersonal. A bulletin board or roll of adhesive tape has become almost the only essential bit of furniture, and a personal collection of nostalgia gets hung from them, with living space relegated to the cluttered floor.



(210) Commercial agglomeration of Amsterdam junkshops in a redevelopment area, 1970



(211) Charles Eames house, Pacific Palisades, Los Angeles, 1949 (see also 75). This may be the first polemical example of adhocism in architecture: standard catalogue industrial windows, open-web steel joists, corrugated metal decking. The structural members were originally made up for another job

No matter what contemporary culture theory makes of such sophisticated adhocism, its novelty is doubtful. Demonstrative acquisition indoors is at least as old as antique collecting, a not trivial adhocist preoccupation itself. What remains an interesting question is whether or not agglomeration, which depends upon an adhocist time/money constraint, will overwhelm the still important "standards" of "good design," the objects from Dessau or a factory in Czechoslovakia or California that can be certified by New York's Museum of Modern Art.

What might lie ahead beyond the Braun appliances, the French tinned copper pots, Scandinavian birch furniture and the mountain of other consumer goods that represents a hard-won design standard, could be a new public sensibility of objects in agglomeration. If there is a semiological "object language" equivalent to word languages, isolated objects should become less significant and worrisome, comparable to other languages in which meaning depends as much on syntax and grammar as on expressive words. Such a transmutation would depend upon a new system of taste values permitting more devaluation of physical objects *qua* objects, and the appreciation instead of overall results in nicely rigged relationships. This far-fetched sensibility is being demonstrated most convincingly now by a few self-aware adhocists among contemporary architects.

What Joseph Esherick's Bermak house (212, 213—Oakland, California, 1963) manages to do is to *look* adhocist, which at present is a valuable contribution to the sensibility. "Junk" items like steel stovepipe and chicken wire are used on the exterior; redwood sunshades in small bits collect around the building in agglomerative combinations. Esherick doesn't worry about making the joints of plywood panels align. The house's form is deliberately fragmented, but seemingly in order to produce a further richness of many things, not to make much of little.<sup>29</sup> Esherick has explained his work as analogous to that of the junk sculptor, but instead of wandering the streets looking for objects he combs the catalogues. He extols the virtues of "wooliness, vagueness and ambiguity," which he achieves by making familiar things serve purposes that are only approximate to their original purpose. His design for a San Francisco low-cost housing development built on the site of an old brewery makes a virtue of what was available. Esherick allowed the ground floor of the brewery to remain as part of the development, and the old beer boilers became ornament and play sculpture.

29 Esherick's office has also been responsible for a convincingly adhocist renovation of an old cannery in San Francisco (1968), converting it into a small complex of shops and courtyards.





(212, 213) Joseph Escherick's Bermak House, Oakland, California—a serene *maquillage*. Note the “accidents” of unaligned interior panel joints



(215) Charles W. Moore house, New Haven, Connecticut, 1966. A rhetorically pointed example of transplant surgery, with arbitrary boxes thrust like tubes from above into an existing plain clapboard house



(214) The GPO Tower, London, 1965. Here functionalism itself contributes to emphases so casual and opportunistic as to seem *ad hoc*

The GPO Tower (214—London, 1965, by G. R. Yeats, with F. G. Micklewright, for the Ministry of Public Building and Works) is an almost complete catalogue of *ad hoc* design responses, disarming the otherwise well-deserved jokes about its phallic appearance and making it one of Britain's most provocative buildings of the '60s. The carelessly exhibitionistic “eyesoar,” as it could be fairly called, was built primarily for microwave relay of telephone and television signals. Its site was *ad hoc* because the Post Office settled for a parcel of land the GPO already owned. The entire British microwave grid was generated from this casual decision. The round shape of the tower (at one early



stage it was square) was determined by the need for 360° flexibility to mount future aerial horns and dishes pointing in all directions. Height was established by the requirements of uninterrupted signal passage, and the limiting factors of wind load and mat foundations. An original plan for fiber glass cladding over the aerials was eliminated when it appeared that it would interfere slightly with their function. Aerial requirements will change, so a major element in the appearance of the tower will vary (the horn aerials in place are already out of favor). The curtain wall under the exposed horns, which looks explicitly "cheap" and "conventional," was chosen from among different patented systems, with offers invited from competitors to suit the Ministry's nominal details and specification. All in all, there seems to have been no "design conception." Even the green color was determined by the only heat-absorbing glass then readily available. A revolving restaurant near the top was added after the foundation contracts were begun.

Steve Baer, born in 1938, is not an architect but an inventive engineer. He builds polyhedral structures for himself, the University of New Mexico Department of Architecture, and anybody else (a sign on his road simply says "DOMES BUILT"). Some characteristic structures in Drop City (see 7), a rural commune in Colorado began in 1965, were built by the inhabitants out of scrapped car tops under Baer's instruction. In his do-it-yourself manual, *The Dome Cookbook*, Baer explains about their use:

They are cheap, strong, have an excellent paint job and are available almost everywhere . . . 25 cents a top has been the going rate [at junkyards] in New Mexico and Colorado. . . . An experienced man with a good axe can easily chop 5 or 6 tops an hour and when the cars are packed close together so you don't have to touch ground you can go faster than this . . . [Standing on the top], chop along the sides first, then the front and back. Throw open the doors—one foot on an open door and one foot on the car is a good stance for chopping the sides. . . .<sup>30</sup>

30 Steve Baer, *The Dome Cookbook*. Corrales, New Mexico, n.d.



(216, 217, 218) James Stirling: Derby, England, Civic Centre competition design, 1970. The preservation of a historic façade was suggested. Stirling tilted it back (to form a band-shell roof), definitively detaching it from a former context and theatrically crashing it into another; *ad hoc* preservationism at its most astounding, witty, and even considerate, since the façade was a familiar but not remarkable sight. Stirling's design wasn't selected for building

Other pages and diagrams give practical instructions for the problem that plagues every maker of faceted structures: getting the facets to fit. "When the trouble starts, you need tools like the following: sledge hammer, large clamps, block and tackle, large and small wrecking bars, drift pin, poles and levers." Baer's pragmatism and sophisticated simplicity are helpful in ignoring obstacles and side issues. His interests have now extended to the area of heat exchanger mechanisms, which he characteristically got into by devising a practical homemade solar

heater to beat the extreme daily temperatures at Drop City.

Robert Venturi's book *Complexity and Contradiction in Architecture*<sup>31</sup> embodies a set of personal values of which a few are adhocist principles, but very much inter alia. Venturi is being adhocist when he says he likes things that are

... hybrid rather than "pure,"  
compromising rather than "clean,"  
... conventional rather than  
"designed," accommodating rather than  
excluding ... vestigial rather than  
innovating, inconsistent ...

The ellipses indicate places where Venturi embraces distortion, ambiguity, perversity, boredom and equivocation as such. These are Venturi's own choices and not characteristics of adhocism, though such values (or their opposites for that matter) could be sought, using adhocism as a method. Venturi's architecture admirably bears out his equivocal intentions and characteristically calls attention to perverse dualisms, an argumentative style far removed from the relaxed pluralism more characteristic of parts naturally combined *ad hoc*. In contrast to purism's *yes/yes* or *no/no* Venturi seems to insist upon *no/yes*, while adhocism would allow *maybe/yes* or *maybe/maybe*.

Can adhocist architecture be relaxed, pluralistic? Jencks, like Venturi, speaks instead of "jagged confrontations" and "semantic articulation" as appropriate for adhocist architecture, with plenty of rhetorical emphasis desirable. The seeming conflict is resolved in that these are two quite different goals among several that adhocism in architecture can offer:

a) *Ad hoc* choices can be made consciously, for the sake of style, encouraging rhetorical confrontations and blunt semantic distinctions—to make the visible most of what I have called "practical adhocism." To do this, rhetoric needn't take over. Goff's adhocism is something he uses as a delightful contrivance (often agglomerative) within a broader sensibility devoted to personal form, which is for him an overall "organic" style (219). I find more frequent examples of adhocist rhetoric in the work of his former student, Herb Greene, who uses practical adhocism much more as a stylistic

31 New York, 1966.



(219) Bruce Goff's Ford House, Aurora, Illinois 1949 (see text, p. 85). Goff's retrieval adhocism of what he calls "decorative accents" is partial and equivocal, always subordinate to an overall "organic" style and sensual personal expression. His salvage parts seem mainly there to show their curious and *recherché* nature, precious as objects out of context, rather than a new one

(220) Herb Greene's house, Norman, Oklahoma, 1960, vividly contrasts a timber structure with a granite-outcropped site. Greene's adhocism is sometimes rhetorical, sometimes equivocal. *Ad hoc* parts in a few Greene houses are so skillfully integrated that, as Goff said, people think they are specially made for the job







(221) Cloudform building project, Nathan Silver, 1969. The intentional adhocism of unlimited approximations, to achieve ends that may continue to change. The flexibility of add-a-part cloud forms depends upon an accommodating structure, and the maintenance of a superior mechanically created environment inside

mode for its own sake<sup>32</sup> (220). (See also "Add Hox" project, 82).

b) I am presently interested in adhocism's capacity for allowing approximate solutions rather than perfect ones (221). Instead of accommodating conflict, adhocism can ignore it, permitting a plain facade to glide over multiple distinctions or leave disharmonies behind. This is intentional adhocism in architecture (partly "accidental" in appearance, because the design neglects appearance as a fixed end). It isn't necessary to express adhocism by disjunction

every time the method is used. Often it is valuable merely to allow for a more relaxed condition of less "appropriate" but better integrated parts. Practical adhocism requires paying perhaps undue attention to the parts as parts, with consequent joints and connections. Joints really serve to isolate parts and keep them "distanced" in their former context. Mies van der Rohe's purist architecture needed joints, adhocist architecture only needs junctions. In a sensibility of intentional adhocism, junctions could be smooth transitions—a glass wall becomes metal or rubber, without any change of plane or obvious break.

c) Yet another expression of adhocist sensibility lies in the syntax or relating of parts, which can become more important than the elements themselves, according to the associations of the viewer. Helen McNeil's term of "phenomenal adhocism" in literature suits this. It is difficult so far to imagine a complete architectural example, but a limited one could be found in a

32 Actually, almost any building might be made to look stylistically adhocist, but that wouldn't mean that *ad hoc* advantages or economies were sought. (Actual utility need only be supposed in adhocist sensibility.)





### BRAMSON DINERS HAVE IT

DESIGNED TO PRODUCE PROFITS	SERVICE WITH MINIMUM EFFORT
ENGINEERED FOR EFFICIENCY	PLEASANT SURROUNDINGS
CONSTRUCTED WITH BEST MATERIALS	PLANNED SEATING
BUILT LIKE A BATTLESHIP	CUSTOM BUILT AT
LAID OUT BY EXPERTS	MASS PRODUCTION PRICES

#### CHEERFUL ATMOSPHERE

#### EXTERIOR CONSTRUCTION

STAINLESS STEEL BUILT	LARGE VESTIBULE, 2 DOOR ENTRANCE
ALUMINUM HEAT INSULATION ROOF	SLANTED THERMOPLASTIC WINDOWS, 1 INCH THICK
ALUMINUM ALUMINUM DOORS, RAINWATER MADE	LIGHTING AROUND STORE DINER AND VESTIBULE

#### INTERIOR CONSTRUCTION

FORMICA WITH STAINLESS STEEL TRIM	LAMINATE TERRAZO FLOORS THROUGHOUT
PERFECT INSULATION THROUGHOUT	PERFECT FLUORESCENT LIGHTING THROUGHOUT
AIR-CONDITIONING (SEE AIR CONDITIONING)	

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(222) Adhocist looks (the suggestion of the "old railroad dining car"), but purpose-made design. By the Bramson Engineering Co., Oyster Bay, New York

dining room. A dining table surrounded by six different chairs may mean "one problem can have six solutions," or "look-alike chairs don't matter," or "variety is better than uniformity," or "I buy one chair at a time"—or all of these things and more. The choice of design intention is up to the viewer, as his sensibility articulates its own *ad hoc* relation of perceived parts to a conceptual whole.

Speculating further about the different ways that adhocism in architecture might be applied and recognized, contemporary preoccupations

like "functionalism" or "industrialization" or the "one-shot prototype design" are all neutral towards a developing sensibility. A one-shot design could be made to look stylistically adhocist, despite being at variance with it in method. So could a prefabricated building, even though the components are normally selected as an integrated whole and are strictly limited to a given set (222).

The sensibility of adhocism could (though it needn't) reflect a more permissive attitude towards maintenance. Truly cheap and readily available parts might have to be maintained more often than carefully designed and chosen ones, but they are easier to maintain (a worn

out pure or one-shot object could require re-tooling to be replaced—and nothing looks so impure as dilapidated purism). Adhocist designs could change gradually during processes of maintenance as new parts different from, but compatible with, the old are produced: the American kitchen, with replaceable-interchangeable elements, is an example of a whole design that can successively change every part.

From the viewpoint of an adhocist sensibility, a successful renovation is more impressive than a new building.

For architects, equivocal adhocism may be the best stance. The trouble with adhocism, more than other principles, is that the moment it is identified and adhered to it may become a pose, and as a pose it stands to lose its vital relationship with purpose. Although an aesthetic mode is a purpose plain enough, architecture lives as an expressed means to more "real" purposes or ends. An architect who wants to keep adhocism alive might well choose to use it selectively, for fear he would otherwise simply be a junk-eclectic.

Perhaps the largest implications of adhocist means, method and sensibility in architecture suggest that adequate shopping for parts is crucial. In adhocism's full stylistic swing, a good architect would be a consummate shopper.





### 3 Adhocism in the Market and the City

#### Consumer power and the design supermarket

Design is what everyone does all the time. Buildings are designed, as are "consumer durables," disposables such as clothing, and anything else—including food—that has been shaped and packaged for a market. Adhocism deals with the fact that choice and combination are more central to design than novelty. This is as true for the buyer as the seller: people design, notably, when they shop.

The product marketplace is a great design resource that institutionally harbors all the cultural hardware currently in existence, for the community at large. There are still markets in the world, like one I visited in Mérida, Mexico, where every single product of the society is on display for selection and combination: products for farming, products for building, keeping house, making new things by using the things on sale. The market in Mexico even displays things combined from the wastes of other products: strainers from perforated tin cans, rubber fenders made of strips cut from old tires, complicated mechanical fruit peelers constructed from machine screws, razor blades, auto gears (224). These *ad hoc* assemblies are typical of what the consumers go on doing. Building-your-own from parts is a rationally economical method when the available resources are all in one place to see and choose from. At its best, a marketplace should offer *all* products so that efficiency and low cost, not the mere fact of availability, determine choices. Clearly this principle isn't hard to apply to the total cultural product of Mérida, where a strainer made from a perforated tin can at a tiny price may satisfy. The trouble is that the appeal of such crude gadgets would be limited in places like New York where more refined objects are readily found. Can a full range of choice survive in the much more compartmented industrial society we live in? Magnifying the Mexican marketplace to include all the resources of industrial society may not be as impossible as it seems.

When the housewife buys this can of peas rather than that one, or buys none at all, she

(223) *Ad hoc* gadgets from salvaged parts in the market at Mérida, Yucatan, Mexico



(224) A Mérida adhocist fruit peeling device at work

votes with her pocketbook, and such choices influence the production of goods far away. They help individually to build the cooperative collage that is the man-made world. Yet if design is to flourish through the efforts of "ten million architects," as Jencks says, then the ten million must have the shopping resources of professionals, because design can be decisively influenced by consumption as well as by production. A dialectic between consumer and producer generally happens now only in the research reports of market analysts, where docile supermarket customers are quizzed about which product they "prefer." Like sales statistics, the resultant feedback to the producer is strictly limited to the choices proffered. Only in a producer-directed marketplace can it be smugly said that "needs do not produce products: products create needs."<sup>1</sup>

If one agrees that design is not just what professionals do but what everyone does all the time, then the whole environment must suffer whenever information is withheld. Advertising is said to furnish necessary product information, but it isn't useful information because, the insistence of its practitioners notwithstanding, its principal purpose is to disseminate misinformation. Comparisons with real rivals are to be concealed, real motives are to be hidden, real uses

(or dangers) are to be ignored. Of course, even poor information can be interpreted and used by sophisticated consumers. One result of the saturation of advertising in the American press and on television has been the growth of a callously level-headed consumer market. Even so, tough-mindedness, an Ombudsman, or Nader's Raiders hardly constitute the consumer power which is the needed missing half of the market dialectic.

Even product catalogues purposely omit information, on the theory that giving details only allows for rejection, because details reveal limitations.<sup>2</sup> And this is no mere theory. *Of course* a product may be rejected on all sorts of grounds if information is complete. Merely improving manufacturers' literature is never going to lead to better advertising from the consumers' point of view, because the consumer has totally different objectives; he is on the opposite side. He wants specifically to know about *weaknesses, limitations, excessive costs, long delays in supply*, and so on. What advertising is going to tell him this?

From the consumer's point of view, the criteria for adequate product information are approximately as follows:

First, of course, it must be accurate, objective and up-to-date;  
it must include a *description*  
(materials, workmanship, color choices);  
it must reveal *suitability* (or use);  
it must give an account of *performance*  
(or *durability*);  
it must tell about a *warranty*, or guarantee, if any;

2 Product information supplied to the professional design industry isn't overtly contemptuous of the consumer, but a survey of manufacturers' literature in the British building field carried out in 1970 showed that architectural catalogues consistently leave out vital information. Taking only one category, demountable partitions, the data revealed that:

40 per cent of the catalogues lacked information on basic dimensions  
72 per cent lacked information on size tolerances  
78 per cent lacked information on fire resistance  
68 per cent lacked information on sound reduction  
88 per cent lacked information on approximate cost.  
Source: Department of Building, Manchester University.

1 This familiarly patronizing dictum was thus lately expressed by Donald Schon in "Change and Industrial Society," the BBC 1970 Reith Lectures. Printed in *The Listener*, 19, 26 November, 3, 10, 17, 24 December 1970.

it should *depict details* if construction is important;  
 it should tell about *installation*, and installation costs, if requirements are special;  
 it must give *price* (including shipping costs and special taxes if any);  
 it should mention *availability* (and waiting time, if not available from off the shelf);  
 a *sample* should be available for ready inspection

In all of these criteria, there should be ready *comparisons* made with similar, competing products. In this most existing information systems fail. The argument against direct comparison presumably has to do with leaving such things to consumer choice. But this is really a producer-oriented excuse. Comparisons are vital in adequate information, because they save time by shedding light on the whole market range. They also aid the producers in understanding what niches need filling or development.

Jencks noted earlier that as with any other information, sooner or later all products and their general qualities must be indexed, and the index made accessible to all. This is a basic need, as necessary as a library index. Library indexes list available books in one file by author or title, and in another file list them by subject. It is important that products be listed both these ways, too; only the "subject" of a product is all the qualities it has, the standards it meets, its price, availability, and so on. The first file of products available by name and manufacturer is useful if you know exactly what product you want and just need to know where to get it. But most of the time—unlike searching for a particular book—you don't have the name of an item; you only know what you want to accomplish, and you might be interested in anything that would do the job. This is why the second "subject" file of qualities and other information is much more important in a products index. The index ought to contain all the criteria for adequate product information I mentioned. In order to get at all this, it needs to be impartially classified, and then "data-banked" for access by computers. With all the various qualities of products indexed, ideally one might only telephone in the numbers that represent: "Carpets . . . suitable for heavy traf-

fic areas . . . maintenance likely to be poor . . . solid colors . . ." to receive through the mail a list of about a thousand products. To reduce that number to about ten, one could add: "available within two weeks . . ." or, "bright turquoise . . ." To reduce that to one, or none, one could add, "under \$4.00 per square yard . . ."

Of course this system for any consumer to use is still in the future. Why should anyone now suppose a databank would be that much better than the present hit-or-miss method of finding out about products through advertising, and locating dealers in the phone book or by word of mouth? The reason it seems to me such a liberating prospect is that the basic method is already being used to great advantage in the building, defense and aerospace industries, where information on products is a crucial requirement. Unlike individual consumers, large bodies in these industries can say what they need and get it right now, by a means that is simple for them.

In the example given of a demand for carpets, the future consumer would send in only his needs, the qualities he wanted. This input in the form of qualities desired is known, in the idiom of the trade, as a "performance specification," a demand made in a form that ensures product interchangeability within standard criteria. It's possible to find products you didn't know existed even without a databank, if you use a performance specification. For instance, the American Institute of Architects recently introduced a performance specification service called "Masterspec," which, without mentioning actual brands at all, sends subscribers lists of desirable qualities in all the building product fields that the subscriber wants. The user selects the qualities he is particularly after and crosses out the rest or adds others, then sends the Masterspec back to Chicago. There a computer working from the edited lists neatly prints out a complete specification of the demanded qualities part by part for the whole building, or only portions of the building if desired. Looking at this highly detailed bill of particulars, all general contractors experienced with supplies can easily see what will fill the bill. They can then quote on and furnish the cheapest or most readily available product that meets the standard. Theoretically, the Masterspec subscriber



using the service doesn't have to know Formica from Styrofoam, as long as he knows what qualities he wants, and can select minimum criteria for what he needs to do from the long list.<sup>3</sup> This is what makes the performance specification method so important for the ordinary consumer.

"Performance specs" along the lines of the AIA's Masterspec are now beginning to be used widely by the military, and by such bodies as a California schoolbuilding consortium<sup>4</sup> to call for products even in the absence of databanks of product information. This works because they can demand "Carpets . . . suitable for heavy traffic areas . . ." and so on; and provided that they advertise for things themselves, or that the bureau or consortium is financially impressive enough to attract the interest of manufacturers at large, the merchants come to them with the goods that fill the bill, and they verify and buy. For most people the drawback is naturally that the needs of individual consumers don't attract much attention, so performance specifications alone, no matter how refined, aren't any help if the demand is destined to go unnoticed; ordinary individual

consumers still have to rely upon producers' catalogues and advertising.

When one day a public databank of products is instituted, ordinary consumers and large industries alike will have much easier jobs in finding things they want. But even the databank won't provide the best of all possible solutions. One thing which the advocates of databanks don't seem to mention is that there is a creative and uncreative aspect to both the databank and the advertised performance specification, so the databank alone can't entirely replace performance specs. In a databank, especially one where the qualities listed are subtle and numerous, one can discover many new things that one didn't know were available. One could start by demanding, instead of "carpets," "*floor covering . . . bright turquoise . . . under \$4.00 per square yard,*" if those are one's main criteria, and come up with linoleum, epoxy mix, and artificial grass made of Dacron, as well as cheap carpet. You didn't know that artificial grass came in turquoise, but suddenly you do. This is the creative aspect of a product databank. Its uncreative aspect is that one can't demand the new invention of something not already indexed in the bank. With a performance spec you can.

Using the advertised performance specification method, an economically important firm might request "carpets . . . Persian design . . . able to fly . . ." and after a suitable pause for research and development, someone might appear with a prototype. This is how the Apollo program worked, in a general sense. The final goal of "moon arrival by 1970" was specified independent of any particular means. And this is the creative aspect of a performance spec: by describing a standard to be achieved directly to manufacturers, suppliers and contractors at large, it can call for a new invention. But unless the specification is backed up with adequate prosaic market knowledge, one might not know that some little manufacturer in Brooklyn, who doesn't read the NASA announcements, makes flying carpets already. Boeing comes in with a ponderous prototype that you buy for 48 million dollars instead.<sup>5</sup> This

3 Other building professional organizations may follow the AIA's lead. The Royal Institute of British Architects announced the formation of RIBA Services Ltd. in November 1970; this service, however, so far produces only descriptions of available products, not performance specifications.

4 This is the latest development of Ezra Ehrenkrantz's School Construction Systems Development (SCSD) project in California (1961-). It didn't begin as a flexibly ad hoc system (the prefabricated building components were to be developed for particular ends), but it has turned out that way. A research group made studies on interchangeability of parts and got cooperation from manufacturers, building trade unions, contractors and others. Those bidding successfully for a job supplied their own component systems, designed as they wished but planned to satisfy the researchers' performance specifications that stated only things like desired sizes, spans, lighting levels, etc. (This suppliers' freedom distinguishes the SCSD from earlier component design projects like the Hertfordshire County Schools project in England—1946-). The construction of so many school buildings is at stake, in California and elsewhere, that other manufacturers are now producing competitive alternatives on their own which are compatible with the systems originally selected. The situation has thus jumped from a limited *de novo* prefabrication set to a multitude of market possibilities that are supplied *ad hoc*.

5 Some of the occasional scandals of military purchasing are evidently due to the buyers' total reliance on performance specs (which go out to specialist military contractors), and ignorance of perfectly suitable goods available in the normal commercial marketplace.

is the uncreative aspect. So indexed data and the performance specification are complementary consumer tools. Once a product databank exists, most of the advantages of performance specification will be available to the ordinary consumer, but he will still need a bit more help to have the creative advantage that large buyers dealing with products have.

Now a third method for providing consumer information comes in—another design aid that would redress the balance of advantage for the ordinary consumer if an adequate scheme, not at all original in principle, is adopted in a consistent and determined way. Like the other two, to be carried out it calls for a consumer-directed, rather than a producer-directed marketplace. And like product databanks and performance specifications, its benefits ultimately pay off for producers, too, though they might be expected to resist in the early stages.

The new area of needed consumer power concerns samples. Oddly, gadget-lovers and people in data-processing are usually silent about samples—perhaps because samples, unlike data, can't be poured out from a machine, and so this subject doesn't have the prestige of new technology to advance its cause. Yet it should never be forgotten that even the best verbal and pictorial information is only a surrogate, often a poor one, for direct experience with the product, and that is what a sample is for: to allow decision as a result of direct experiential reality instead of surrogates for reality. Samples that usually must be examined directly before decision about buying include items to be examined and compared for color, strength, finish, construction, size, durability and price. In the absence of a performance specification system that operates for the benefit of ordinary consumers, some way to browse through samples can eliminate the remaining creative handicap by helping to turn up something, or find some combination, when one is not sure what one wants.

"Browsing" is an important characteristic of any complete information system. It is also the oldest and most valuable accumulating function in all shopping, as in a bookstore or supermarket. The display of wares in such places helps one simultaneously to formulate requirements and make a selection. Browsing takes

place at walking (or similar) speeds, not necessarily at the speeds one would like for making selections—that is, instantaneous thinking speeds. Since often one hasn't a clear picture of what one is looking for, browsing is the only way to find quickly what might do, rather than wait for the chance that what is best may somehow emerge. Browsing, however, is not merely an adhocist's pastime. The serendipitous effect is valuable as an experience, provided information is not obscure, remote or badly displayed. Its function in creativity is recognizable: in order to take proper advantage of unexpected discoveries, coming across the unexpected is necessary first.

What kind of place would allow browsing over all the possible samples and goods that need explaining and could provide creative stimulation by their presence? A real, physical marketplace, of course: a Mérida marketplace for the industrialized world. It would have to be immense, and centrally located; yet such displays have actually been held, although at infrequent intervals, ever since the first great show of goods in the Crystal Palace at the Great Exhibition in London, 1851. The contents of the Crystal Palace were not arranged nor intended for ready shopping and comparison, nor were they intended as a permanent shopping exhibit, but included were "all raw materials, machinery, manufacturers" as well as "sculpture and plastic art" (and even living elm trees spared in Hyde Park). The exhibit contained 100,000 objects and received an

(225) Main gallery of Paxton's Crystal Palace, London, 1851







(226) The Hardware Supermarket might become one of the biggest architectural forms that shape a city, but this could come about by osmosis. This Hardware Supermarket is shown spreading out around the existing buildings of Soho Square, London

average of nearly 43,000 visitors a day for its first five months, and it was really a bazaar. The many temporary expositions and world's fairs that have taken place since have managed to provide shows of goods on a similar scale, but as producer-directed performances—without any notion of truly serving a consumer's shopping interest.

In my view we need a permanent information, display, and sales center for a theoretically unlimited range of goods—a supermarket for design. Doing research recently on what I came to call "a prototype Hardware Supermarket," I tried to assess its scope, what goods and services could be included, and who would be the buyers.<sup>6</sup> An early conclusion was that the usual terminology applied to describe job-lot materials and supposed primary customers was unclear and unrealistic—terms like "building materials" or "architects and designers" or "housing industry." What started as a plan for a market to satisfy architects irresistibly began

6 This project was undertaken with the aid of a grant from the U. S. National Endowment for the Arts. The abstract of the proposal called it "The Feasibility, Programming, Design, Management and Operation of a Prototype 'Hardware Supermarket': research and development of a facility where designers, architects and builders could find the widest possible cataloguing and display of sub-assemblies for direct application in component building (or 'ad hoc design')."

to turn into a consumers' market, and building products soon became all products. There seemed no reason whatsoever to restrict it.

After study and reflection I concluded that the only feasible Hardware Supermarket was one which could operate as a combination marketplace, service depot and information center for everyone. There should be no class distinctions between "trade" and "retail" customers nor between "builders and architects" and "ordinary consumers," though there could be lower prices for bulk purchase. Its success as an institution would depend on how big it would be, and whether it would give one maximum opportunities for encounter, comparison and confrontation. Quality in these terms relates to quantity, so the more goods there would be and the more people who could use it, the better.

It would be no good to site such a place out of town like a shopping center. It would have to be set up near the center of a large urban region where people can easily get to it—say twelve in the twelve largest cities in America. They needn't look like the Crystal Palace. They could start among many existing commercial buildings that need new uses (225). A Hardware Supermarket could be used like shops on Main Street, but shops whose goods are integrated according to a consumer plan. Storage space for the immense inventory of available goods wouldn't have to be on the same site, but even just a sample each of all goods would still require great volumes of space and excellent transport connections which cities have. The purely data-providing aspect of the Hardware Supermarket could be in the same place or somewhere else, wired to numerous suburban, private, and even personal outlets.

Information on goods should be freely comparative and open, and new goods and services would have to be made available continually. This would never happen in a producer-financed supermarket, a conventional department store, trade center or products display: a developing and flexible system for competitive goods can only be run by the consumers themselves. Consumer financing for the Hardware Supermarket would therefore be needed, and the place could be run as a co-op, by means of a non-



profit corporation, or by local government—as town markets are today.

Established properly, with no artificial limits, the Hardware Supermarket would become—it would turn into—the modern urban marketplace: a civic asset in a physical sense, and a common location for efficient trade, information and inspiration.<sup>7</sup> Its most significant contribution would simply be to help bring about the relevant connections between people and all products in an unfettered way. This corresponds to the pre-industrial revolution urban marketplace, whose decline was probably less due to the diversity of industrialization than to the rise of the producer's powers, and his desire to raise capital through sales unhampered by comparisons. Even if we don't institute a Hardware Supermarket by decree or consent, something like it will eventually come about, just because it is so logical and necessary.

I do not mean to scorn the tools that consumers now use. The great information tool of the industrial world has been the catalogue, but from Sears, Roebuck and Marshall Field to Elda "Danger Line" Underwear and Whole Earth, catalogues too have promoted only a preselected range, with inadequate information and display. Soon, besides product databanks, performance specifications that might one day be used even by small-order buyers and a Hardware Supermarket, the marketplace may even incorporate user-indexes, an idea borrowed from certain specialist libraries: systematic, up-to-date records of every user's preferences. Any user might then be able to reorder from his index, and any other user (or producer) might be allowed to discover how many other users favor certain products. Such an arrangement would have to incorporate measures to protect privacy, but the ethical and practical difficulties of establishing a reorder system, with truly representative market research feedback,

are I think less daunting than the disadvantages of the existing producer-dominated market. If one of the great problems of a market economy is consumption not keeping pace with production, these methods will help. They will certainly aid whatever prospects adhocism has as a reputable principle of design, and the consumer's prospects of functioning adequately in the field of design on his own behalf.

### Unresponsive planning

Far more difficult than shopping for present needs is the problem of working out satisfactory and free means for anticipating future needs. Planning is difficult for an obvious reason: we have never seen the future, and so like uncertain parents with an unpredictable child, we demand too much from it and criticize the results. Modern man's love-hate relation with evolving change is curious. It has led both to soothing purism with strict planning of the social, economic and physical world for preordained progress, and also to alarms that excessive change in our time leads to grave upsets like "alienation" and "anomie." Yet looking back for relief from the latter doesn't offer much reassurance. The nineteenth century was, if anything, more changing and more responsive to change, in absolute technological, social and political terms, than our own has been so far. That century was full of upheaval, rebellion and reform; developing and utopian societies; new means of transportation; approaches to scientific method; explorations into human personality. Though in sheer technological terms the twentieth century has embodied amazing and refined developments, their effect on the pattern of life doesn't compare with what came in the last century—the recent impact of air travel for the few against rail and car travel for the many doesn't compare to the impact of rail travel against no travel at all. What is more striking about today's perceived and experienced world is how *similar* it is to that of fifty or a hundred years ago. Sons have the same jobs and politics as their fathers, marry the same kind of girls, live in the same kind of cities and still largely depend upon public transportation to get about. They suffer from "anomie" instead of neurasthenia.

7 The design worked out under the grant turned out to be not physical forms, which would have been gratuitous under circumstances where no real site was available nor a means of beginning established, but diagrams, lists of prerequisites and other criteria. Predictably, producer representatives so far have either been wary of the proposed function of all this (which was defined in detail as something beyond a glorified trade center), or have shown interest only in its promotional methods.

This version of events is worth considering because recent discussions by Donald Schon<sup>8</sup> and Alvin Toffler<sup>9</sup> of change and innovation in technological society argue the opposite: that accelerating technology now has produced incomparable feelings of uncertainty in which any notion of a stable state of affairs must be discarded. The loss of "the stable state" (Schon's term) has meant the end, or at least the prospective decline, of the stable organization; such organizations must radically change character, or create entirely new organizations which can coexist with the old. Both Schon and Toffler describe means of dealing with the end of "the stable state"; Schon largely from the viewpoint of business and government, Toffler in more general terms of society at large as it suffers the traumatic experience of "future shock" by encountering too much change. Both propose *ad hoc* experiments for periods of rapid transition (Toffler actually calls up-to-date managers and technocrats "the new ad-hocracy"), and both reject over-refined rational and experimental models.

Instead of "future shock" as a relevant description of the current malaise, one of Schon's corollaries ought to be taken as the main point: that the *means* of system-making, categorizing and organizing have emerged in a newly obstructive role. These means of more "efficient," less responsive control are the most typical and disturbing of our time. To an unprecedented extent we now try to master-plan and control changing aspects of culture and society. What's wrong with the world has become not its disorder, but its repressive order. Schon and Toffler perceive our nervous reactions to these recent artificial controlling powers but attribute them to the ambiguous situation—which has remained, actually, in a "stable state" of instability for some time. Both offer *ad hoc* methods as an answer to what they consider a unique contemporary problem, which is not surprising, since it is the typical method of dealing with uncertainties at all times.

As an alternative to the inflexibility that has become characteristic of present planning systems, adhocism may work in planning by dealing with real situations and needs rather than

hopeful or ideal ones. Inflexible controls frequently become root causes of social discontent when emerging desires and minority purposes are forced to conform to restrictive overrule. To meet the complex needs of an increasingly pluralistic society, social, economic and physical plans must become contingent and resourceful. Public planners, including legislators, will have to adopt looser methods, and discard the border mentality encouraged by fixed compartments of authority. The unquestionable need for society to arrange and concoct in advance should not require means of control that suffer from four crude excesses: *inappropriateness, artificial limits, unresponsiveness or heavy-handedness.*

a) A system of control can be appropriate or inappropriate to its task. Government administrative areas like cities and states are often too big or small for the problems their legislators are now expected to deal with; powers are misdivided and efficiency is frustrated. When Mayor Lindsay of New York City in 1970 thought that it would be sensible for sanitation workers to ticket cars parked illegally in the way of street cleaning, he discovered that a new law would have to make its way through the *state* legislature before this could become possible. By contrast, local government in England during 1971 is undergoing one of the rare but undaunted transformations that Parliament occasionally enacts; with little controversy except about questions of detail, many old boundaries of counties and shires are being legislated away as no longer relevant, in favor of new districts and metropolitan regions with more highly integral interests. This is as radical as if half of Texas was to be joined to Louisiana and Arkansas, or if the area from Perth Amboy to New Haven was to become one state with a self-governing status. In America the historical irrelevance of states as permanent units of local government condemns the nation to largely inappropriate sectors of control (as in inconsistent highway regulations, professional licensing, concern for pollution, urban financing), a situation that becomes more difficult as planning becomes more confident. British-style adhocism in American local government districting would make sense, reallocating zones of authority and even local government borders when suitable. Such proposed changes might be carried out on a further *ad hoc* basis,

8 Schon, "Change and Industrial Society," the 1970 Reith Lectures.

9 Alvin Toffler, *Future Shock*. New York and London, 1970.

with new regions delineated in a few places for a limited trial period.

b) A control system can take into account all possibilities or limit them artificially. The battles being fought over the siting of mammoth new airports—reaching the crisis stage around New York and London alike—should be taking into account possible alternatives to airports as such. If an airport is primarily designed to serve a metropolitan region, it may be that the real airport (for check-in and check-out, baggage sorting, customs, tax-free shops and spin-off commercial concerns) should be in the center of town, with rapid-transit links by the planeload to remote and scattered runways where only the aircraft are located. Later costly modifications required by advancing technology would primarily affect only the outlying parts of the system, where change could be met *ad hoc*; it would not so much affect the public facilities comfortably located (and hemmed in) in town.

c) Responsive and unresponsive control are equally possible. Some American town planners have become keen on "advocate planning," one name for the sensible recasting of planning practice as a frankly partisan matter. They recognize that the public interest is plural, sometimes diverse, and frequently competitive; instead of working as an establishment of presumably apolitical planning technocrats, who pretend public interest is unitary and self-evident, and who therefore usually support the prevailing unequal distribution of wealth and development, planners should commit themselves realistically to political goals. Some planners might remain pure technicians, but others would be open advocates representing competing groups on an *ad hoc* basis. Once aligned with partisan interests, planning as competing pluralism would become a comprehensive concern (social and economic, as well as physical), whereas previously physical planning has been artificially separated as a civil service. Most advocates of "advocate planning" are sensible enough to realize that planners would gladly pledge themselves politically as *ad hoc* representation became their duty. Progressing from advocacy to commitment, professional planners would be able to infiltrate party politics with their real planning skills. Perhaps politicians could finally be planners who seek the aid of

lawyers for technical advice, rather than the reverse.

d) How much "control" should people have over the future, even in the name of precaution? Sometimes a heavy-handed control of the future is exercised in the name of idealism. British "new town" planning has established remote towns in the countryside with scant respect for any economic and social basis, following the seemingly irresistible mystique of Ebenezer Howard's Garden Cities. Free choice, however, still seems to run in the opposite direction, towards greater urban consolidation. As is obvious now, except to those still blinded by Howard's city phobia, the new towns in Britain have institutionalized economic isolation while giving the appearance of providing local work; they have blocked opportunities for their inhabitants through the bad sociology of equating worker mobility with rootlessness; and they have attempted to sustain artificially an agrarian population pattern when Britain's economy has clearly become urban centered. People in physically separated communities—provincial communities, in other words—will indeed act like provincials, even if they are culturally connected with the rest of society. Isolation has the semblance of suiting individualism, but in fact dooms all kinds of choice for many who are stuck with it, including those to come. It commits society at large to a fragmented population unused to social diversity, perhaps therefore suspicious of it. As physical reality, the architecture of the new town ranges from pretty to awful, but almost all suffer fundamentally because they are *unified*, restricted designs: there is quite visibly no plural thickness. Also there is no built-in state of contingent change as in real cities, just "staging" towards an all-at-once end state: the completed design, final walls, final population, finished. The new towns reveal not flexible planning but gross control, while they sham responsibility towards the future.

### Contingency planning

The fact that effective control need not include a commitment to hypothetical models or fixed principles, nor indeed have any directions at all within it besides a general sense of alternatives and preferences, may seem surprising. "Planning" has usually meant an over-



weening respect for the fame of Le Corbusier's ideal cities and for Utopians who prefer to ignore local realities. Yet there are vital *ad hoc* modes of planning that proceed within a view of local and present reality as the only constraints in their equations; restraint from fixed principle might be the only principle. At least one such venture had great success:

David E. Lilienthal's account of the Tennessee Valley Authority provides an interesting example of the *ad hoc* approach to system design. Lilienthal reports that visitors to the TVA frequently asked to see a copy of the TVA plan and looked in vain for a Department of Planning on the organization chart. Neither of these existed. Lilienthal maintains [in his book, *TVA—Democracy on the March*] that in a democracy, plans must be based upon "here and now" and "things as they are." He insists that the people must be in on the planning and that their existing institutions must be made part of it.<sup>10</sup>

Planning procedures, whether for towns, regions, economies, production or society, are alike in that three contrasting types can be identified. One might call them *master planning*, *piecemeal planning* and *contingency planning*. The first two are the most familiar methods being consciously applied to date; they are highly susceptible to the four crude excesses of unresponsiveness. The third is the much more flexible (and fully *ad hoc*) method that is sometimes seen applied to small problems but rarely to large ones.

*Master planning*: phase by preordained phase to a "perfect end." But disagreement emerges along the way and conditions change.

*Piecemeal planning*: a laissez-faire approach (practical *ad hocism* perhaps). Attend to urgent problems and let the other ones ride. But the options are found to have been closed on the problems that had to wait.

*Contingency planning*: considering a full model of many branching and sometimes re-joining possibilities, with probable and desir-

able branches given greater weight. Future choices remain open, even the unexpected can be added to the picture, and all courses of action can be evaluated in advance. Neither dogmatically perfectionist nor shortsightedly piecemeal, it is a fully *ad hocist* procedure in its operation.

Behind the idea of contingency planning is a simple willingness to take feedback into account: looking, listening, criticizing *en route*. Feedback (especially from the community) makes it possible to develop new rules that recognize earlier successes, to improve already existing but less successful things, and to verify a well-tested model for the future. Cities, language and other complex systems of human organization respond the same way. Recognizing earlier success and verifying traditional models is not a recipe for stagnation, unless new intentions never intrude. The introduction of new desires or values into the feedback mechanism automatically changes the process from a piecemeal operation, with traditionally determined rules, into a contingency operation with both traditional and intentional rules. Typically, the *ad hocism* is of a higher grade, since new values come into it as well as the earlier successes. Society thus can consciously foster some kinds of development while ignoring or suppressing others.

When master planning overlooks the contingent development of cities and leaps at once into the *de novo* addition of housing developments, districts, or new town schemes without testing and adapting each change bit by bit, the planners are gambling at high risk not only with the new parts but with the welfare of the whole population. Large-scale and long-term plans, isolated from an integral feedback principle, subject everyone to a long period of inconvenience in *post hoc* trial (transportation systems or traffic rules embody this risk). Master planning was not inflicted on towns before recent times, but it is akin to the introduction of an entire body of foreign elements into a language all at once, as in England after the Norman conquest. Whatever the advantages of assimilated French many generations afterward, the stresses that conquest placed upon language must have been as real to Englishmen of the time as anything they had to experience in politics—in fact, like "urban re-

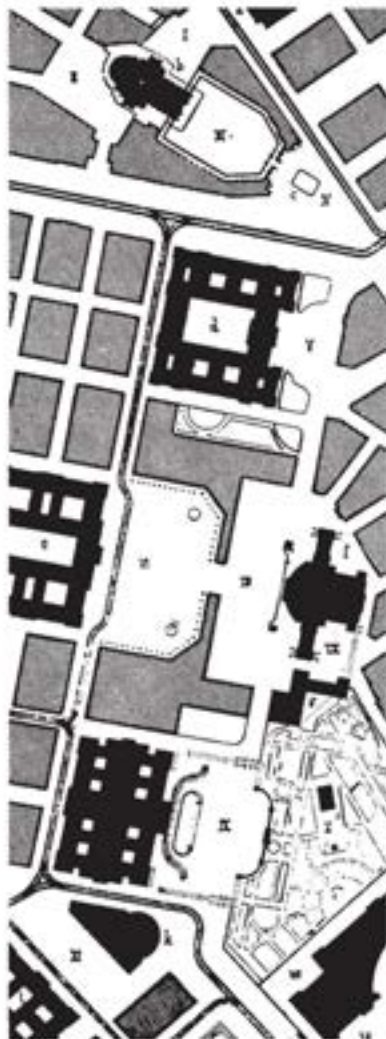
10 Boguslaw, *The New Utopians*.

newal," for many it was the central political experience.

Apart from the nuisance and potential for error, upheaval is costly. Keeping old things running can waste less energy and cash, and sometimes brings extra benefit in a sense of cultural continuity. The two standard methods for maintaining good use of old things (such as a city's buildings) in changing situations are often thought of as alike. Preservation is mainly a non-*ad hoc* policy of master planning or piecemeal planning, whereby handsome or historically important buildings are maintained for their own sake. Conservation is an *ad hoc* policy of contingency planning, where the building is not kept for itself, but for its good use. Both are essential, not necessarily interchangeable strategies to ensure that resources are used with sensible thrift; but in conservation, where continuous effort uses the present building stock to best advantage, rewards need not be gained only by last-minute editorials and wielding power unfairly to hold back change.

Many people stand to benefit from conservation, so it needs to be a part of public policy. From a preservation standpoint there is the risk that such maintenance for good use may require the building to change over time, in adhocist fashion—but this simply shows that a decision must be made about whether maintaining continuity is essential for historical/aesthetic reasons, so it remains a monument of fixed appearance, or for complex reasons relating also to need, where it would be advantageous for visible changes to occur. In this context, squatters are radical adhocists who try to impose their notion of changed use or flexible use on a relatively unresponsive system of planning control.

When the usual result of master plans is large-scale redevelopment, with its attendant problems of upheaval, the most familiar "conservative" response is to try to avoid it. In 1889, Camillo Sitte suggested *ad hoc* methods of improving squares and streets of existing towns "according to artistic principles"; by which he really meant the humble spirit of the place (227).<sup>11</sup> Gordon Cullen's and the *Architectural*



(227) Camillo Sitte's proposals for the Ringstrasse, Vienna. I to XII are new spaces suggested by Sitte, surrounded by existing landmarks and new building wings in local style based on his analyses of successful *ad hoc* urban arrangements (as well as planned Baroque forms)

*Review's* British "townscape" movement of the '50s suggested endless mini-improvements to existing places, frequently illustrated with Cullen's convincingly lifelike drawings or doctored photographs of Before & After (228). Many of the townscapers' suggestions were compromising, whimsical and anecdotally pretty-pretty, but their approach was in a great *ad hoc* tradition of British attention to matters of relationship (like the landscape designs of Capability Brown and Humphry Repton). It some-

11 Camillo Sitte, *City Planning According to Artistic Principles*. Translation. New York, 1965.



times worked and it sometimes helped. The contempt they have been paid by more sophisticated British architects is a measure of the sophisticates' disregard for the importance of cosmetics when only cosmetics can be economically applied.

At the purist master-plan extreme is Le Corbusier's vast destruction-and-rebuilding schemes for Paris and New York ("a city which will be replaced by another city"); at the other is "natural" Soho and New York's East Village. But one way to achieve puristic change while conserving the *ad hoc* city consists of developing a new city in the air above the old one. Proponents have been a diverse lot of architects and non-architects: some of the Japanese "Metabolist" group, John Johansen in New York, Yona Friedman in Paris (229), Norman Mailer. Cities-on-stilts ideas commonly ignore the risk of overcrowding and the problem of the loss of light and air caused by overshadowing, not to mention the nuisance of rainwater dripping from a million elevated eaves and casements. Yet we must see such a city built before we can be sure of its relative disadvantages.

Meanwhile, small-scale adhocism in planning seems to be growing. "Infill" has been championed as city strategy by many. Modern bathrooms are dropped through the roofs of old houses in Zurich<sup>12</sup> and New York; ready built "home improvement" annexes are reaching a wider and wider market. In England one of the old commercial ideas of Georgian times is being revived as previously mentioned: houses built as elegant façades along streets and around squares are sold to owners who add their own buildings on behind (see 55).

What of the basic problem? Large-scale redevelopment must be faced since it can't always be averted. A consolidated building program is often deemed economically necessary to maintain a reasonable flow of cash return to the private developer, by drawing rents over large areas as soon as possible. And it has been argued that, after all, a jump in the scale of building should be recognized and appreciated as one of the natural characteristics of our age. The difficulty of contrasting redevelopment

with adding-on as a concept in city building is that both are extremes of a continuum which includes changes of every size. But if redevelopment is merely the same process of change as usual, applied to a larger area, it is hard to understand why the results should be so different. Something crucial seems to be missing in redevelopment; must we resign ourselves to that loss in building on a large scale? Jane Jacobs is convinced that the answer is yes, and points to diversity of use as the missing thing.<sup>13</sup> Architects like Johansen, Victor Christ-Janer and Ralph Rapson have read the problem as a loss of texture: many of their designs for large buildings have been relentlessly fragmented.

Adhocist convictions lead me to suppose that the great flaw of large-scale redevelopment is its lack of diversity in design choices and differential rates of change. A sensibility of practical adhocism would help by offering choice: more elements included, with *ad hoc* appropriateness, would thwart a consolidated design method and suit actual purposes. Immediate and continuous changes, normally banned by timid landlords who won't risk *ad hoc* alterations by the real users, would begin at once to reconcile the new project with its old surroundings (230).

13 *The Death and Life of Great American Cities*, pp. 222-38. New York, 1961.

(228) "Existing" and "proposed" in a doctored photograph: Gordon Cullen's image-improvement for the Barbican area of Plymouth, England



12 *New Scientist*, 5 December 1968.





(229) Yona Friedman's "Spatial Paris" with a new city in the air over the old

Reconciliation is central, while economical and purposeful choice is after all what any good shopper expects. *Ad hoc* change is a necessity of creative existence, leading forward from the past. One of the implicit themes of this book is the forgotten relation between unconscious vernacular (tradition by virtue of necessity) and conscious direction (tradition's role in Eliot's *Next Thing*). Both appear to curtail the quirks of individual choice, but the greater the past, the more one can discover in it for "making do": letting the past play a role in one's choices. Opportunities for the future depend upon everyone's access to all the choices. Adhocism is a way of seeing how many choices there are.

(230) Nathan Silver: Architectural Association School competition design, 1968. Regulations made new zoning setbacks and detachments from the pleasant street a necessity with complete rebuilding, so this approach left enough of the existing buildings (especially at street level) to preserve the appearance of a mere renovation, while the façades were arbitrarily blitzed and new forms added to meet ambiguous requirements—an intentionally adhocist proposal. The solution, however, violated the competition rules. Zoning setback regulations had to be observed





## 4 Appendix: Miscellaneous Adhockery

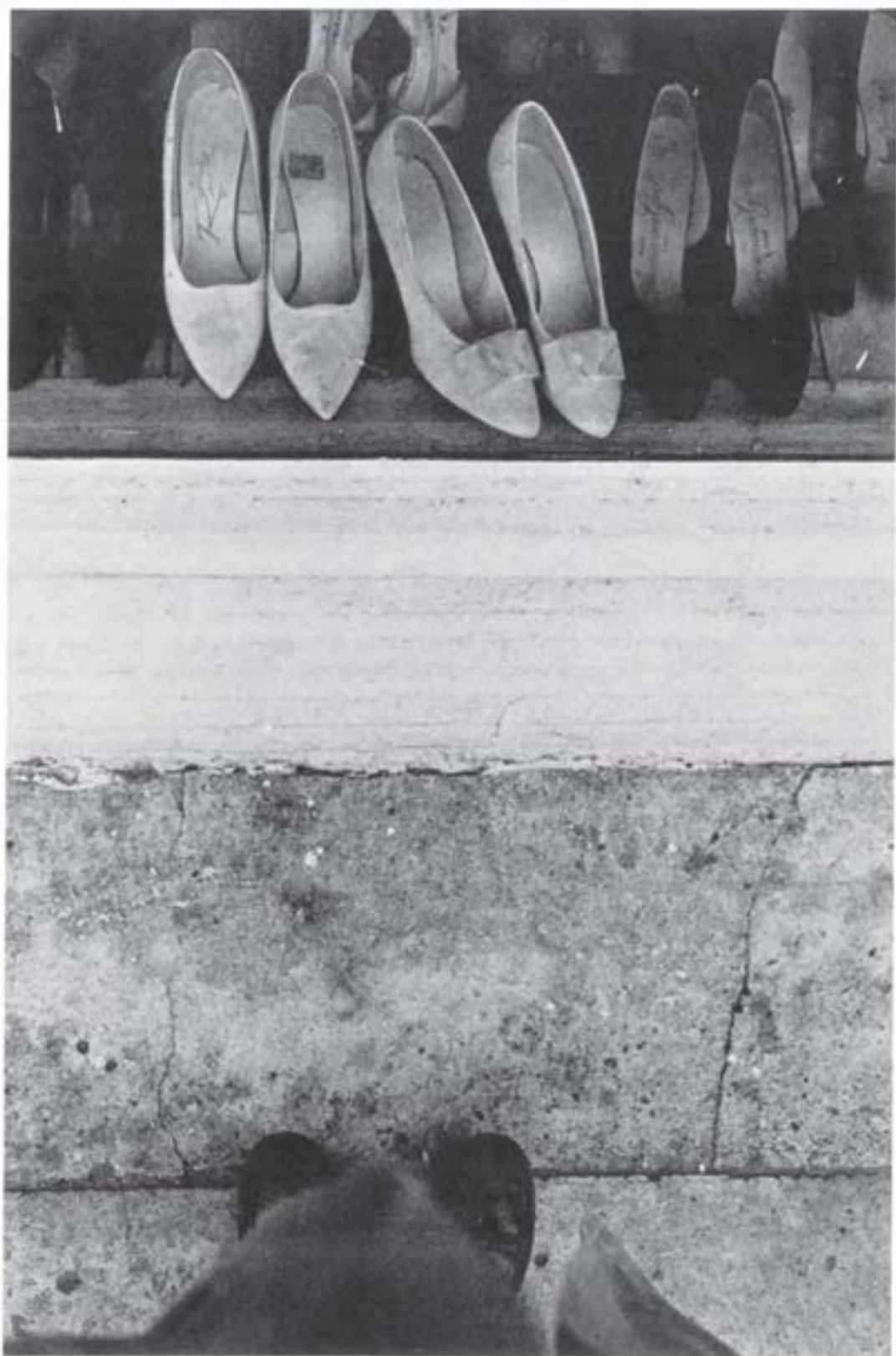
### Photography

A photograph and a painting both have edges, and edges are responsible limits; the apparition works only within them and it stops with them. Lately both arts have settled mostly into a pattern of explorations in selection. Nevertheless, new concepts of naturalism have created new design principles in photography. The fundamental impact of photography (or at least its exclusive preserve) is its sense of authenticity; the ring of truth, fact, "givenness." This authenticity need not be only composed, or caught at rest. It can also be captured, or programmed, in a different way; a way more characteristic of cinema. Through movement, cinema makes it clear that the camera is explicitly *ignoring* some things in preference for others. The recent work of a few still photographers also shows that there can be quite different ways of exploring the environment's *ad hoc* potentialities.

Lee Friedlander, an American photographer formerly active in advertising, has been using the grammar of candid photography to suggest not the magic of exquisite selection but its opposite: the randomness of things *ad hoc*, to be looked at and then possibly ignored. The old trick of running content off the edge to demonstrate continuity beyond the frame (taken up by Degas, and turned into new modes of composition) is used by Friedlander right across his pictures—the edge could come in the middle, or six inches off the film for that matter. Friedlander's content is not banal, certainly not random, but always seems *expedient*—like the low-demand pictures that would be clicked off in a hurry to finish a roll of film. Friedlander pictures have a disturbing habit of looking like amateur photographs: a picture taken from a bed of a television set in a dark room with a baby crying on the screen, the photographer's naked foot in the foreground; the interiors of vacant shops, with the photographer reflected in the dark glass, or in a slip of mirror at the rear; a still self-portrait (or a directed self-portrait of someone else) with the camera held

(231) Photo-Fit "wanted criminal" assemblage, Scotland Yard, 1971. A photo of a face that never lived, to identify a man never photographed





(232) Photograph by Lee Friedlander

at arm's length, a big arm coming forward off the edge of the film (232).

Bruce Davidson uses a totally different method to achieve what can be read as a similar result. For his book of pictures taken in East Harlem, New York,<sup>1</sup> Davidson used a heavy view camera on a tripod to produce impressive images of tiny rooms with ceilings and floors included, and posed photographs of people stiff with anxiety. As a Friedlander photograph seemingly lacks any composition, and demonstrates by restraint that one must always choose to "make" pictures, a Davidson photograph is nothing *but* composition and a "made picture," implying somehow that the subject within the frame may compose, but there is much more outside that won't get organized until the camera turns on it. For all the focal sharpness and stiffness, the edge of the picture limits nothing and only calls attention to what lies beyond. The pictures smack of arbitrary photography: the lights and tripod and camera gear must be just out of sight, the lens pointing at the unstageable being staged.

The photographs of both Friedlander and Davidson are a kind of mimetic adhockism, because they reveal and imitate the *ad hoc* arbitrariness of the environment by uncovering its authentic, diffident multiplicity: in one case through a seemingly artless banality, in the other through evoking the anxious stillness of nature, intruded upon here, but edgeless and seamless beyond.

### Ad hoc politics

In *The Prince* (1513), Niccolò Machiavelli suggested political methods that were partly adhockist. Machiavelli was much interested in the lessons of history and thought he could reduce the dominion of chance over human events, and both attitudes point to puristic rather than adhockist orientation. Nevertheless his book implicitly upholds adhockism as a major principle in acquiring and exercising power.

Machiavelli recognized the fact that things often need to be bad before they can get better; as he mentioned, the people of Israel had to be enslaved and oppressed by the Egyptians before

they could be disposed to follow their "Prince," Moses, and be delivered out of bondage. In spite of the perverse causality, Machiavelli's implications for contemporary rulers were clear: chance situations were to be used to advantage. Machiavelli wasted no time on planning for ideal states like republics, but concentrated on the acquisition and holding of power among tyrants. The Prince's state described by Machiavelli was the original *ad hoc* unstable state; new stratagems, shocks, and plots were constantly required to maintain it. Its tyrant depended only upon short-term manipulations (e.g. the chapter entitled "That One Should Avoid Being Despised and Hated"), and only practical objectives, not distant goals.

Another maligned theorist, the Marquis de Sade, can be defended<sup>2</sup> as an existentialist philosopher. Every innovative torture his characters devise is proof to de Sade that man can act in unpredictable, apparently unmotivated and therefore free ways; yet de Sade always appeals to reason—he refuses to attach the amoral impulses he expresses to madness. To the extent that de Sade is an enemy of psychological and philosophical determinism, he is an adhockist.

Among the Marxists, as Jencks has shown, Rosa Luxemburg's argument that revolution had to be carried forward from large, otherwise amorphous groups of workers was a modern *ad hoc* political policy. Her thought that ideas thrown up from such groups were at least as valuable as considered theory parallels Régis Debray's suggestion<sup>3</sup> that revolution ends as soon as any stable state can be defined; then it is just another bureaucracy. The revolutionary state should always be *ad hoc*.

### Not measuring

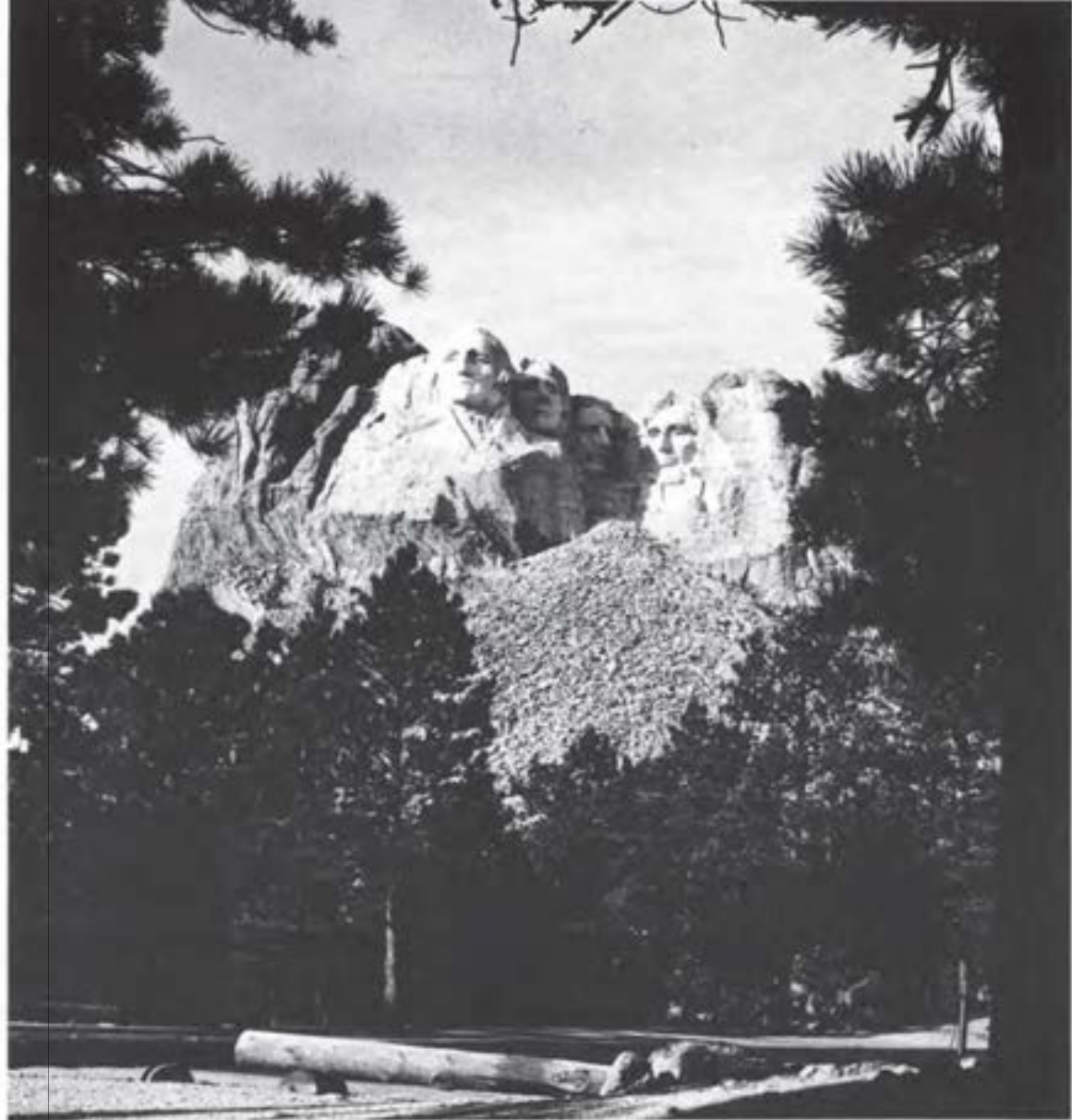
Swift's pedantic Laputans found a puristic way of doing everything. When Gulliver was to have a suit made by a tailor,

... he first took my Altitude by a Quadrant, and then with Rule and Compasses, described the Dimensions and Out-Lines of my whole Body; all of which he entered upon Paper, and in

2 By Simone de Beauvoir and others.

3 Régis Debray, *Revolution in the Revolution*. New York, 1967.

1 Bruce Davidson, *East 100th Street*. New York, 1970.



(233, 234) Mountain-shaping offers opportunities for dauntless adhocism of the grossest scale, whether taking material away or adding on. Mount Rushmore, South Dakota, and Bruno Taut's Alpine Architecture fantasy (1919)



six Days brought my Cloths very ill made, and quite out of Shape, by happening to mistake a Figure in the Calculation. But my Comfort was, that I observed such Accidents very frequent, and little regarded.<sup>4</sup>

Accurate measurement for its own sake is an arrogant and usually error-ridden attempt to control the complexities of life. Swift may have had measurement particularly in mind, not just the pedantry of the Royal Society. Most people take measurement of things for granted, but measurements have not always been taken for making things, and they are not actually necessary. The foot-rule came in use after 1683 in British building, but not into general use until about 1769,<sup>5</sup> which places its adoption exactly in time for Swift's satire.

Nowadays one still ought to distinguish between *measurement*, which implies the not always necessary transferring or abstracting of size; and *gauging*, which, despite modern dictionary definitions, means something like the *ad hoc* estimate of a greater or lesser quantity required for a particular purpose. This meaning survives in the construction term *gauging-plaster*, which is the necessary quantity of Plaster of Paris used with common plaster to accelerate its setting. Gauging instead of measuring is still the method of most vernacular building, and in sophisticated building also when a foreman may measure, but workmen fill in with "the necessary quantity" of tile, cobbles, shingle, and brick. A non-Laputan bespoke tailor similarly may take measurements at the outset to transfer sizes to cloth needing to be cut; however, his accurate fitting is not done by means of more exacting measurements, but directly on the human figure to be fitted. The cloth is marked with pin and chalk gauge-lines.

Gauging has to do with large allowable tolerances where accuracy doesn't matter. The pre-occupation with introducing "modular" building materials (i.e. those manufactured in multiples of a given dimension, like four inches) fares ill in practices where gauging is customary and necessary, such as in brickwork (and

typesetting), where unit widths are adjusted to make the work come out even at the ends. Demanding an exactly regular mortar joint in each case to keep the work on the module throughout would be a time-consuming, Laputan business.

### Cooking

The exasperating Laputans served Gulliver a dinner as follows:

In the first Course, there was a Shoulder of Mutton, cut into an *Equilateral Triangle*; a Piece of Beef into a *Rhomboides*; and a Pudding into a *Cycloid*. The second Course was two Ducks, trussed up into the Form of *Fiddles*; Sausages and Puddings resembling *Flutes* and *Haut-boys*, and a Breast of Veal in the Shape of a *Harp*. The Servants cut our Bread into *Cones*, *Cylinders*, *Parallelograms*, and several other *Mathematical Figures*.<sup>6</sup>

This time Swift's satire has an unintended effect. As another example of work carried out "according to principle" rather than simple utility, it should come under the same category as Laputan tailoring. Yet such geometric cooking has a somewhat alluring mimetic adhockism about it as well, as nature (food) is shaped idiosyncratically into art. This is not inconsistent with the purist ideals and fixed forms of *haute cuisine*.

6 Swift, *Travels*, Part III, A Voyage to Laputa.



(235) Cake produced by the British National Association of Bakers, 1922

4 Jonathan Swift, *Travels Into Several Remote Nations of the World* (Gulliver's Travels). Part III, A Voyage to Laputa etc. London, 1726.

5 According to Gordon Rattray Taylor.

*The Accomplisht Lady's Delight* (London, 1677) didn't stoop to crude measuring in the *ad hoc* recipes given,<sup>7</sup> as this one for "Macaroons":

Take Almonds, blanch them, and beat them in a Mortar, with serced Sugar mingled therewith, with the White of an Egg and Rose-water, then beat them altogether till they are thick as Fritters, then drop it upon your Wafers, then bake it.

The recipe assumes that the cook knows how to gauge almonds, sugar, egg white and rosewater to another approximate standard, the thickness of fritters; and also that she has some wafers lying around. Compare this with my mother's best recipe for cookies:

#### *Chocolate Acorns*

Grind coarsely and reserve:

1/2 lb. blanched almonds

1/2 lb. unsweetened chocolate

Combine in a large bowl:

3 egg whites

1/2 tsp. salt

1 tsp. vinegar

Beat until egg whites are stiff.

Gradually add 1 cup sugar until

meringue forms in stiff peaks. Fold in

1 tsp. vanilla, almonds and chocolate.

Drop by teaspoon about 1" apart on

greased cookie sheets and form into

ovals. Bake in 250° oven 30 mins.

Remove and cool on wire racks. Melt

1/2 lb. semi-sweet chocolate. Dip half of each cookie in chocolate.

Written recipes remain *ad hoc*, though always less so than the traditional cooking they replace. Even in modern recipes measurements vary wildly. The cookbook writer Elizabeth David complains that because recipes don't have copyrights, her "inventions" are "plagiarized." But you can't copyright a recipe because all recipes are recombinations of similar parts in similar ways. Only exact wordings can be protected by law.

7 However, the artistic vocabulary of carving transforms the act into numerous pure and discrete tasks. One would allay a pheasant, chine a salmon, culpon a trout, mince a plover, rear a goose, dismember a heron, display a crane, disfigure a peacock, lift a swan, tine an egg, splay a bream, splat a pike, spoil a hen, string a lamprey, tame a crab, etc.

In cooking, as in architecture, the most thoroughgoing adhocism (and purism) lies in the vernacular. Regional cooking is *ad hoc* in the sense that it uses available materials. In Toulouse, use *confit d'oie* in the cassoulet; in Marseille, add *rouget* to the bouillabaisse. An extreme case of availability is Chicken Marengo, said to have been produced by Napoleon's chef from what he could forage after the battle. Cooking with leftovers is pure adhocism, throwing in what you have and hoping for the best, as is the classic regional stew, soup, and the French stockpot.

#### Games

Not all games are *ad hoc*. A game is usually even more ritualized and ordered in form than life.<sup>8</sup> Yet according to Piaget, play itself is a mode of intellectual investigation involving the assimilation of reality to the ego, which compared to other modes is more spontaneous, differently organized, and freer from prefigured conflicts and frustrations.<sup>9</sup> Therefore, play is an essentially adhocist mode within the context of intellectual investigation.

Advantages coming out of play's adhocist liberation from *usual* rules are well recognized in educational circles. Students bad at English need to learn that they can actually produce strings of words on paper, never mind "errors." One teacher of English composition thus improvises writing games where errors are ignored. He says, "We think of a game as 'play' rather than work, accept its conventions without argument as provisional and temporary, and concentrate our energies on participation instead of perfection. Furthermore, we all accept that a game is primarily something to *do* (and to learn by doing) and not something which has to be elaborately justified and explained."<sup>10</sup>

Childhood experience is a sequence of games in which *ad hoc* transformations are improvised; there seem to be no criteria for boredom in endless narrative games ("and then . . . and then . . .") or endless questions (the "why")

8 See John Huizinga, *Homo Ludens*, Boston, 1955.

9 Jean Piaget, *Play, Dreams and Imitation in Childhood*, London, 1951.

10 William Bernhardt at Staten Island Community College, New York, 1972.



(236) "House of Cards" toy by Charles and Ray Eames. Picture and pattern cards can be selected or combined to build and simultaneously decorate *ad hoc*

game). Good toys are things made from other things: macaroni into necklaces (literalizing the meaning of "macaronic," a jumble of languages), newspapers and rags into dolls, cardboard into houses, walnut shells and matchboxes into boats, blocks of wood with wheels drawn on for cars. Adhocist re-invention takes place in terms of a child's view of what is most important. A word game played for comedy among English schoolchildren is Boggles. The idea is to compete by putting together bogglingly mismatched nouns and adjectives: "clairvoyant carrots," "Arabian Eskimos," "left-handed whales."

Among adults, *ad hoc* games have similar exploratory purposes. There is the "surprise" game



(237) An "Exquisite Corpse" game of the Surrealists, ca. 1926, by Tanguy, Miró, Morise and Ray (see text, p. 24). The bizarre assemblage unfolded at the end is a version of Heads, Bodies and Legs in children's books and blocks

(238) Drawing reversal game played by Lady Antrim in England. In its first state no model or palette was in the drawing, and the man was a scornful bristly buffoon without smock, beard, or transcendental look

(239) Three person add-a-line game. The letters of the title were added one at a time too, starting anywhere and working forwards and back

of cleaning out a closet, emptying out pockets in old suits, or sorting through the contents of a handbag after six months and saying, "My God." *Ad hoc* games can be social experiences, such as parties. A party is a selection of people for the purpose of intended confrontations that never turn out quite as expected. Certain games-as-social-experiences are institutionalized: the cruise, the get-together dance, the computer dating system, the mystery tour popular in Europe (at least two films have been made about *ad hoc* discoveries inherent in the latter).

Some talented players enjoy a sort of drawing reversal game. Two players decide on a contradictory pair of attitudes or emotions, such as Selflessness and Greed. Each draws a picture of a person depicting the first attitude. Papers



are exchanged, and, without erasing, each then turns the drawing of the other player into the opposite attitude by adding an economical number of additional lines *ad hoc* (238). Allied to this, a more open-ended add-a-line game has two or more players take turns adding one unbroken line to a developing collaborative picture. A sequel, or a game itself, consists of titling the picture, or writing a message by putting together letters one at a time (239—this recalls the collaborative principle of the Ouija board). The Dictionary Game consists of inventing plausible definitions for an obscure word. Botticelli is an *ad hoc* associative word game.

Charades (or "The Game") is an acted-out rebus, where a whole phrase or sentence is presented as a collection of performable parts. This is the familiar adhocist phenomenon of invention by adding or subtracting parts, and success in the game is scored with the most economical use of time (as well as with the most creative use of the format: a memorable rebus-dissection of Salvador Dali was *saliva-tore-doily*). A doubly *ad hoc* version of Charades was played in New York by Stephen Sondheim. It called for someone's advance preparation of a list of phrases. Each phrase, acted in turn by a member of each team, would contain one word that bore a concealed relationship with other words in other phrases, and as the list became revealed, the key word associations would help, or confuse. Thus "the yellow rose of Texas" would be followed by "green grow the rushes-o." A sequence of colors? But it might also be plants. In Sondheim's game, the true relationship might well be concealed further in puns (Texas, the Russias). Sondheim has invented many satirical board games, based on familiar dice-throwing and counter-moving principles. *Ad hoc* board games could give new social or political meaning to an old pastime; one could, for example, create a Vietnam game out of a Monopoly set.

There is a fascinating game called Strinnon, played by English actor Trevor Peacock and his friends. It is a sort of home Olympics, and each participant takes on extra gamesmanship stature by representing a country or region. Points are awarded by the group on a scale of 10 but it is rare to be given more than 2 or 3. The group assembles, and each "goes" when he

says he thinks he is "ready." The player then performs some brief act which is a phenomenal use of the premises, the occasion, and himself, *ad hoc*. On one occasion, a player ran into the room, slid across a table, and managed to open a drawer on the far side, inserting his head in it before crashing to the floor with the drawer. He got 3. Another player brought with him a tube of toothpaste. He seized a ceiling beam and hung from it in a ball while squeezing a white line over himself with the toothpaste.

Actors are not the only ones who are good at the game. A lawyer said he was ready to begin. He crawled under the carpet. This seemed to be the end. But then he stood up, and then, with the carpet still over his head he walked upstairs!

### Practical jokes and fiendish contraptions

Adhocism is a basic factor, if not *the* factor in joke construction, since jokes depend on disjunction, economy, surprise, mismatched pieces, a punch line as a contingent part. As for practical jokes, they harness diverse means to secure certain ends. The equipment of practical jokery is what seems, but is not: a plastic turd, false body parts, flies imbedded in plastic ice cubes.

The "blunt instrument" of detective stories and news articles is generally some normally innocent or harmless object suddenly pressed into service *ad hoc* as a cosh (240). Police museums are full of diabolical adhocism. There are zip guns made of toy pistols, tubes, tape and real bullets; pipe bombs made of gelignite in an iron pipe; bombs from alarm clocks with dynamite and batteries in a cigar box. In *Bad Day at Black Rock*, Spencer Tracy, cornered behind a jeep in the wilderness by Robert Ryan, who was trying to shoot him, disposed of Ryan with an instantly improvised Molotov cocktail. He found a bottle behind the jeep (!), turned on the car engine and opened a valve in the fuel line to fill the bottle with gasoline, then stuffed his handkerchief inside the bottle, lit and threw it. Guerrilla handbooks give instructions (as if one couldn't improvise) for making Molotov cocktails, using celluloid toothbrush handles through a cork as the fuse. A make-do missile of the



(240) Confiscated murder weapon put on display by New York City Police, 1971. According to the description, the horseshoe was supposed to make the victim look as though he had been kicked by a horse, but the murderer failed to take into account that a horse kicks back with the open part of his shoe up



(241) The canonical adhocist weapon carrier: New York City Police exhibition, 1971

French Resistance was a potato (or a bar of soap) imbedded with razor blades; and recent insurrectionists in Belfast have been making bombs out of dynamite packed round with nails.

In the army I read with great fascination a manual on rendering military equipment useless to the enemy. The book told how neatly and easily to disable every infuriating machine of war. There were two secrets to adhocist sabotage: damage the same part in every weapon and device (so no complete one could be assembled *ad hoc* from available parts), and use whatever method you can that is both workable and quick. A suggested method of ruining

a typewriter lest the enemy capture it and turn it fiendishly against you, was first to center the carriage, then strike the roller in the middle with a sledge hammer and cold chisel so the carriage couldn't move. If such esoteric tools weren't available, you could move the carriage to the left or right as far as it would go and simply drop the typewriter on the floor so the roller assembly bent.

#### The news

The accusation of "faking news" that occasionally is levelled against the media hardly needs to be verified—it is poetic truth anyhow. As

seen in television reports, newspapers or magazines, news is—if one can ever look at it objectively—a freakish juxtaposed collage of described events. But it is almost impossible to get a perspective on the fact that all news, from any source, at any time, is also an assemblage adjusted to the market for sensational or interesting disclosures. The proof lies in the fact that what little “news” there may be at dull times always expands to fill the space available, *ad hoc*. News is always there regardless of “importance.”

Not all public events are *ad hoc* (they sometimes have pure aims and fixed causes and effects), but when they become information, all are made pieces in a journalistic scheme of practical adhocism. Selection, dissection and compression begin, and the real world is reduced to “news.” One generally realizes this only at the rare times when one participates in “news-worthy” events that aren’t reported; or, when in circumstances one knows, the effects are reported but not the causes; or, when in other appreciable situations, peripheral details emerge but central issues are left out.

Rarely is the phenomenon of grim events milked for news entertainment actually described in a newspaper, as below (and, understandably, only in reference to newsreels):

... in the Thirties the newsreels found all foreigners, including their Royal families, comical; and that included Hitler (“Germany’s popular Chancellor”), and his soldiers dressed up like hock bottles who were preparing to annexe the whole world. Nazis were novelty items for the end of the reel. ... It was in the reporting of what fundamentally was *not news at all*, but different kinds of national celebration, that five newsreel companies between the wars achieved a level of head-cracking competition to match the robber barons. [Italics supplied.]<sup>11</sup>

“Not news at all”? But unfortunately it was “news” indeed. Our usual reliance upon news for a basic conception of reality means that during newspaper strikes and the like, life seems



## Asians' strike threat | Marriage

(242) News as an unelucidated *ad hoc* assemblage. This photograph in the London Times, 27 May 1970, was described in entirety as shown, with the “Diary” item not pertinent. The same moonmen suits appeared in a new photo printed in *The Times* on 24 August 1970 with a signed story. It bore no relation either to the picture or information appearing 27 May

to stop happening. An adhocist assemblage has replaced unedited reality to an amazing extent. But the relationship of news to events is not very different from, nor its influence much odder than, the relationship of language to events. The picture is hanging in a frame, whether or not we choose to see the frame. The news is not the event; the two are not isomorphic, and one is made from tissue that may tell an unreal story about the other.

## Acronyms

Action on Smoking and Health (ASH) is a group formed by the Royal College of Physicians in England. A women’s group in America is called NOW (National Organization for Women); a one-woman organization is SCUM, the Society for Cutting Up Men. Such word formations (acronyms) planned to make sense in their initials too are designs embodying an uncertainty principle, like a simultaneous equation with two changeable ends heading towards an optimum selection from possible solutions. The name can change and the initials can change, provided both in the end produce a satisfactory rhetorical result.

11 From “The Newsreel Boys,” *Sunday Times Magazine*, London, 10 January 1971.



## Ad hoc medicine

An old recipe that cures everything worth curing:

Wine, Ginger, Seeds, and mixed Bouquet. Put it all together into the Wine, and let it stand to twelve hours, stirring it divers times. This Water comforteth the Vital Spirits and helpeth the inward Diseases that come of Cold, as the Palsie and contraction of Sinews, it also killeth worms, and comforts the Stomack, it cureth the cold Dropsie, helpeth the Stone, and Stinking-breath, and maketh one seem Young.<sup>12</sup>

Vitamin pills today are similar *ad hoc* collections of ingredients which vary according to notions of good health. To pursue the moment's ideal of beauty, the entire body can serve as an *ad hoc* playground. Princess Luciana Pignatelli recounts her adventures having her nose bobbed, breasts filled with silicone, thighs tightened, etc.; with yoga, affairs, make-up, weights attached to her feet, and cruises for relaxation in between.<sup>13</sup> Less fortunate bodies than the Princess's need crutches, false teeth, eyeglasses, lenses, supports and other *ad hoc* prosthetic devices to keep them functioning.

## Sex

Sex is *the* mode of social adhockism.<sup>14</sup> Adhockism in sex arises from the obvious *ad hoc* possibilities of fornication, since "making the beast with two backs," as Iago revoltingly describes it, is after all the putting together of a purposeful hybrid. Sex is a human relationship entered into by design. As such, promiscuity is practical adhockism, because contingencies of availability and fancy determine the means, and who cares about ideal ends. The subtleties of adultery display intentional adhockism. Adultery like promiscuity consists of contingent relationships, but generally more careful ones whose primary purpose is to alter or at least deny the fixed ends of marriage.

12 *The Accomplisht Lady's Delight*.

13 *The Beautiful People's Beauty Book, or How to Achieve the Look and Manner of the World's Most Attractive Women*. New York, 1971.

14 A less important mode is pretension, bluffing, "coming on."

Incest can be mere coping (making do with what you have).

Prudes accuse authors of putting in sex scenes *ad hoc* to sell their books. Whether or not that is a fair charge, the literary form of "hard core" pornography is usually adhockist, for reasons of relativity: the taboo details are set out within a formally puristic, conventional writing style. Similarly, the pornographic design of sex as literary *content* is often very successful because of the exciting dialectic between the socially unsanctioned *ad hoc* nature of events (or positions) and a familiar setting. It's no accident that the more familiar and banal the surrounding form, whether in text or context, the more thrilling the pornography—as Nabokov and Humbert Humbert knew.<sup>15</sup> A poignant scene in another book was set between intruders and willing schoolgirls in one of the girls' parents' suburban dining room, with the tablecloth serving as an essential adhockist prop.<sup>16</sup> Without the stylistic clash of vivid scenes in a mundane (or earthy) text, and also the moral clash of values with sexual liberties reducing social norms to a mangle, the special designation "pornography" doesn't have much meaning. In contrast to the above books, *The Housewife's Handbook of Selective Promiscuity*<sup>17</sup> is not pornography but just a classic description of intentional adhockism (the heroine's deliberate promiscuity is "selective," the adhockism coming in the ambiguous beautiful experiences she is after), and *The Adventures of Don Juan* is only a classic description of practical adhockism (he seeks a variety of women, for the usual reasons). Both authors skip juicy descriptions of a middle-class morality completely undone. Their adhockism doesn't fight purism, but works within it.

The clash of "loose" vs. "tight" occurs too in sexual jealousy, which is the expression of stresses coming out of a similar infringement, this time upon the notion of a puristic relationship. For a lover, attempts at consistent adhockism in sexual love can become encumbering because a series of free *ad hoc* commitments

15 In Vladimir Nabokov's *Lolita* (New York, 1958), where Humbert Humbert, not necessarily the author, is the pornophile.

16 *Two Girls and Two Boys*. New York (?), n.d.

17 Rey Anthony, *The Housewife's Handbook of Selective Promiscuity*. New York, n.d.



Between 1972 and 2012 one of the greatest contributions of adhocism has been in architectural conservation. The Dominican Church (building begun 1266) in Maastricht, the Netherlands, was converted to the Selexyz bookshop in 2006 (interior architects Merckx + Girod, Amsterdam). By the end of the eighteenth century, the church had lost its ecclesiastical function; over the next two centuries, it housed stables, a concert hall, a marketplace, and a bicycle store. In 2001 the Dutch Cultural Heritage Agency collaborated with the municipality and ordered a thorough restoration. For its definitive bookshop usage, the independently structured multi-story black metal bookstack

starts below in the former crypt, incorporating an elevator and public toilets: what was formerly the church apse (left, in the distance) is now a café. The resulting space has been called “a bookshop made in heaven,” sustained by the maintenance of the restored 15th-century frescoes and memorial stones in the floor surface. (In Maastricht a second redundant monastic church has been turned into a luxury hotel with former monastic rooms becoming new guest bedrooms, and the restaurant occupying a dining mezzanine in the church nave.) Photograph by Nathan Silver





# THE BEST TURKISH KEBAB

Quality TAKE AWAY Food

125

12



## Afterword to the MIT Press Edition: ISM or Is It?

Nathan Silver

Making the case in print that a conceptual label helps to clarify something culturally pervasive is like trying to win over the driver with an argument in a taxi. The short time span makes it end inconclusively, and when the cabbie drives away, it's usually forgotten. Our argument wasn't. It's been more than 40 years since that taxi dropped us off, but it seems that our case for improvisation still rides—which has made it enjoyable to take the trip and spin the argument again.

One reader not long ago said that some parts of *Adhocism* (1972) seem utterly up to date, and other parts of the book couldn't possibly have been written recently. So it's best to use the Afterword to add comments about some aspects of adhocism where we initially said nothing or we should have said more, and also to point out where adhocism has lately developed or changed. I'll end by considering what adhocism has possibly wreaked (not to mention our *Ism* label), and—taking a different route than Charles in the Foreword—say what I think it still means.

### 1.

#### Late entries to *Adhocism* (1972)

Charles and I didn't give Jane Jacobs her full due in *Adhocism* (1972). I'm happy to fix that. In the early '60s I moved to New York's West Village where Jane was a neighbor, then a good friend. That was lucky for me. Jane Jacobs was already influential as a planning critic and she was gaining power on the street.

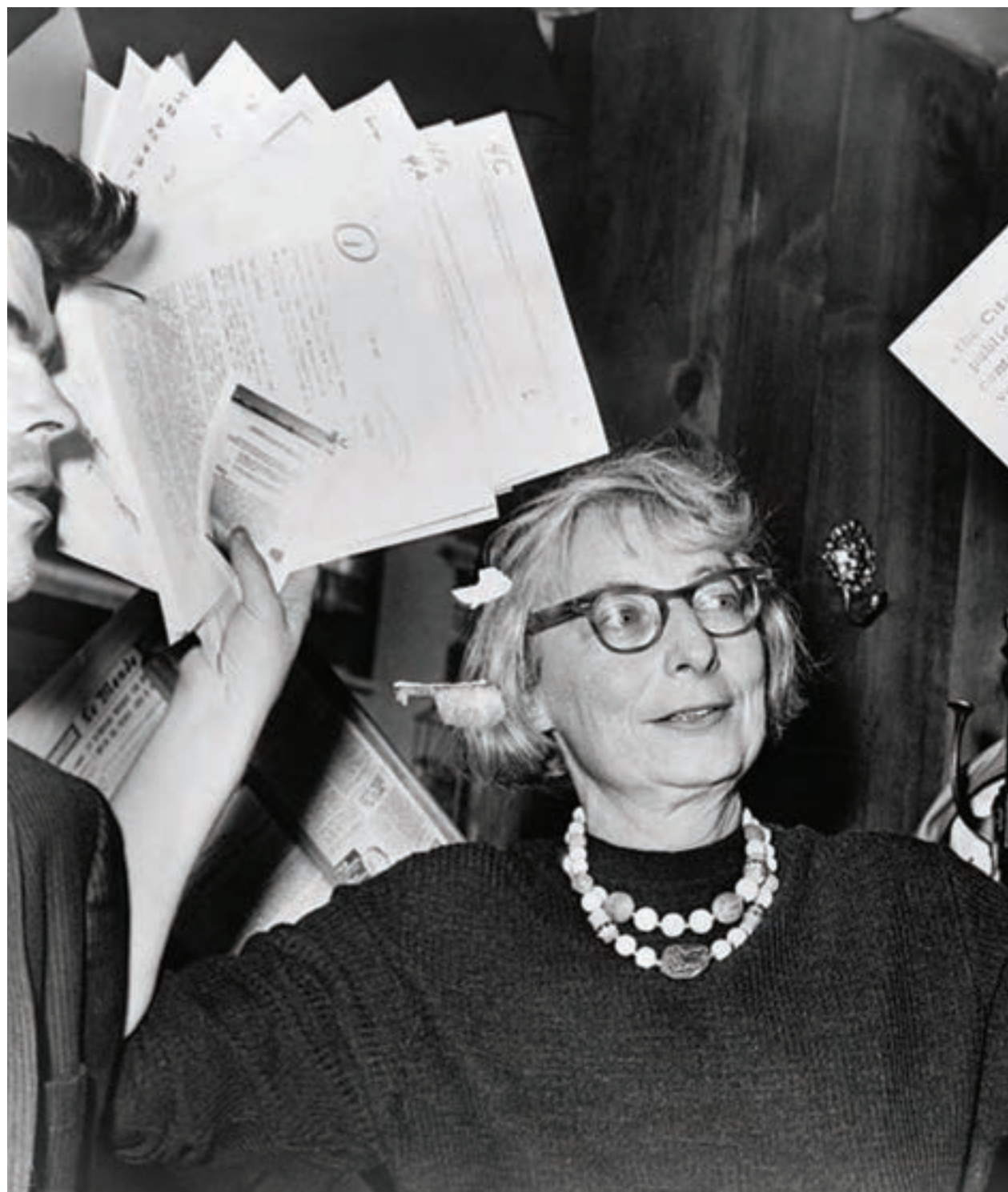
As much an activist as a writer, Jane educated her admirers and us would-be apostles about the life and economy of cities and how and why they go wrong. It's been my private view (private until now) that she had limited faith in design as a force for change. The reciprocal benefit was that Jane thought designers should essentially work with what they have. She had clear vision about policy and social attitude, and she attacked problems like a whirlwind. The planning policies of the day were her problems, and pragmatism and contextualism were the only *Isms* she trusted. That kind of grounding was—still is—good news for incipient adhocists needing to understand the context in order to improve it, question it, and creatively clash with it.



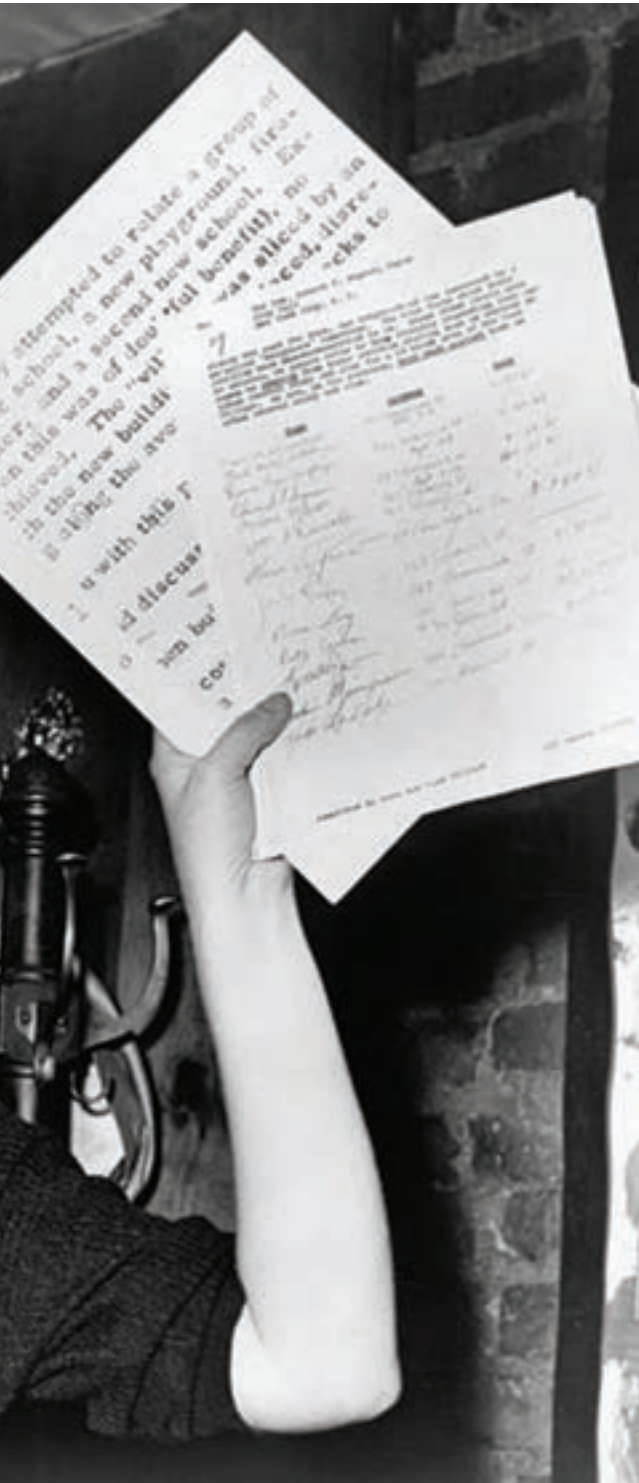
Singular adhocism in the Amazon Basin: decorated faces expressing custom and tribal membership. Photograph by Nathan Silver

#### Far left:

Singular adhocism in London: Grayson Perry in drag, expressing personal shape-shifting. In his artworks Perry's ceramic pots are also heterogeneous, incorporating graffiti, embedded bits, and fastidiously drawn images. Photograph by Mark Read







Calamitously, city planning in New York in those days—a simplistic urban renewal determination that ignored urban culture and destroyed neighborhoods—had brought the innocent idea of constructive Clashes with Context into severe disrepute. In the policy that prevailed, radical Jane had to operate as a great conservationist. There was nothing fuddy-duddy about it. Her resourceful leadership showed us how to campaign successfully so that if we got arrested on a demo against Robert Moses's Lower Manhattan Expressway (we stopped it), our enlightened motives would probably get the charges dropped.

Jane Jacobs is rightly celebrated for her influential attack on urban renewal in *The Death and Life of Great American Cities* (1961), the framework for which was her perception of a vigorous public domain as essential for urban vitality and safety—with the support of sustainable *ad hoc* provisions including old and new buildings together, mixed uses, high urban density, and small city blocks that favor more public interaction. But in her later books she went on to present even fuller adhocist explanations and support for why and how successful cities thrive, with a multitude of living examples. On the tricky question of how new kinds of work evolve, she believed they most productively grow out of the old:

Many of the most economically creative [job] breakaways have this sort of history: individuals, or a few colleagues together, leave their jobs in a large organization and independently reproduce the same fragment of work they had been doing there. ... To put old goods and services to new uses, or to employ them in new combinations of work instead of jettisoning them, might well be called a “conserving” tendency in an economy. Another expression of this tendency is the “backward” application of new techniques to goods and services that would otherwise be obsolete.<sup>1</sup>

Jane Jacobs, chairman of the Committee to Save the West Village, New York, in her activist prime, holds up documentary evidence in a meeting at the Lion's Head Restaurant, 1961. Left, partly visible, her sometime editor Erik Wensberg. New York World-Telegram and the Sun Newspaper Photograph Collection, Library of Congress

1. Jane Jacobs, *The Economy of Cities* (1969), pp. 67, 68.

As she saw it, the success of an urban economy depends on a continual extension of its entrepreneurs' and workers' capabilities to meet new challenges. Like an engine on a spiral, the city's culture progresses largely through the creative *ad hoc* assimilation of the existing skills and qualities of its people, who make it run and rise. On account of her refined understanding and her political activism as much as her planning critiques—call it her remedial urbanism—I reckon Jane Jacobs to be the sovereign urban adhocist.

## Revivalism

*Adhocism* (1972) overlooked revivalism, the *ad hoc* re-use of historic architectural forms as the best means of expression of enduring values and purposes. It effectively began with Leon Battista Alberti's treatises in the 15th century. (Vitruvius's *De Architectura* in the 1st century BC couldn't be called revivalist. His design aid treatises for Augustan Romans mainly extrapolated from Hellenic origins.)

Alberti saw art and architecture as constructs improvised by man that should aspire to stand alongside nature, seeking all the beauty their makers could employ—which as design history shows, actually meant *could bring*—to their work. His expression of desire for harmonic integration within a work sounds the opposite of adhocism, but he shows us where to get it. In *De Re Aedificatoria* ("The Ten Books on Architecture," 1452), Alberti proposes that noblemen and their craftsmen should take beauty from the designs of Roman antiquity (see right). In sum, the aesthetic ideals of the Renaissance were wholeness, totality, and achieving the beauty of nature, which seemingly abjures the *ad hoc*. But Renaissance architects' borrowing and assimilation of the antique silently embraces it.

After the Renaissance, revivalism carried on unquestioningly for centuries. The preference for Gothic style became a matter of bitter controversy in Ruskin's Victorian day; revivalism itself was a trigger for rebellion by modernist architecture students in the late 1920s and early '30s; and it remained an issue still subject to lively debate in the course of postmodern design.

The giddy principles of design decorum in revivalism constitute a kind of adhocist mannerism. (Likewise in the more particular matter of eclecticism. See the Adhocism Tree on p. 209 for a view of adhocist categories.) They included esoteric mandates about Classical design being the principled choice for banks and



Palazzo Rucellai, Florence (ca. 1450). The opening salvo in the *ad hoc* revival of the antique: Leon Battista Alberti's articulation of pilasters, beams, and ashlar blocks are as plain as ink lines on the Rucellai's unmodeled, almost flat facade—like a diagram of the classical antiquity that Alberti upheld as the stylistic exemplar for the early Renaissance. Photograph by George Tatge for Alinari Archives, Florence



Classical columns, proportions ignored, available in a contemporary online catalogue. Barnet Plaster Mouldings

learned institutes; Gothic design for publicly responsive institutions such as high courts and houses of parliament. The aromatic distinctions among such choices, ostensibly based on history and reason (as Ruskin and Pugin argued), were contingent, subject mainly to taste, and in further remove from the polemics of revivalists were little different from modern catalogue choices. Indeed, perfect, if not proportionally accurate, classical columns can now be shopped in catalogues (p. 204).

## Advertising

Advertising is another subject we neglected in *Adhocism* (1972). Then and now, advertising sometimes provides a canvas and display for adhocism that is like nothing else.

As was merely hinted by the examples of posters altered by graffiti (107, 108, 109), the copy and graphics of advertising itself frequently employ singular adhocist elements that astonish, jar, or seem risible. Provoking those emotions is a fundamental way to attract attention, which is the first principle of selling something.

It's incongruity that does it. From the subtlety of a girl covered with jewels in an ad in the *Financial Times*'s Saturday magazine of conspicuous consumption, *How to Spend It (...Oh my! Flaunting all those rocks, yet she looks about 17. Could that be me? Unsettling inner voice: Nah, it's your husband's mistress, sister)*, to the blatancy of a German housewares company's magazine ad picturing plumber's cracks transformed by witty T-shirts<sup>2</sup>—incongruousness, whether played for pangs or laughs, is a supreme show-stopper.

In perhaps the most famous series of ads in advertising annals, the original car design produced by Volkswagen was sold to Americans in the '60s and '70s by the advertising agency Doyle Dane Bernbach with black-and-white car photos, razor-sharp copy, and Helvetica headlines that turned one small-car metaphor or cliché after another into a sequence of sales pitches. In each ad the photograph comically illustrated the literalness of each metaphor-cliché with *ad hoc* abandon that was direct and purposeful. "Will we ever kill the bug?" was the headline over the car upside down, wheels in the air. In ad after ad, the car design was relentlessly objectified as an *ad hoc* plaything.

Patent medicines are famously sold with the use of pictures of victims suffering aches and pains that conceptualize, via paste-up, with literally depicted pitchfork-prodding demons or red-hot barbed wire. Markus Müller has used the contemporary collage tools of Photoshop to lay on the barbed wire as a torment to well-being, and to show that the ordinary drudgery of a washing day could relate—well, if you're a bit simple—to the natural grandeur of a sun-streaked forest (p. 206). He isn't working alone.

Like repeated jokes, singular adhocist ads start to lose power as soon as the novel juxtaposition is identified and understood. The Volkswagen ads managed to play the game for years with successive punch lines, but typically, the effect in advertising is most potent the very first time. This fosters my suspicion that overt, creative, self-conscious, intentionally noticeable singular adhocism (see the Adhocism Tree, p. 209) tends to work elsewhere as it does in advertising: diminishing fast unless it keeps moving, keeps changing.

## 2.

### Adhocism since 1972

*Adhocism* (1972) covered *literature* with a contribution inserted *ad hoc*—for necessary expertise—by Helen McNeil.<sup>3</sup> As an update, she points to adhocism's burgeoning, usually disruptive, often exploitative role in contemporary communications:

Language will always throw up new expressions *ad hoc*, but since 1972 there have been significant shifts from the honed phrase to the instant message, from the verbal to the visual, from signification to object, and away from individual authorship.

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2. Markus Müller, a Berlin photographer, was kept from allowing publication herein by his client, Handwerk.de, after the images went viral and the company was accused of sexism. The top of the T-shirts said in German, "More attractive than you think," and the company name. The bottom had head-and-shoulder color images of glamorous women printed so bending-over workmen would supply *ad hoc* cleavage. Actually the T-shirts were pan-sexist.

3. Helen McNeil taught American and English literature for many years at the University of East Anglia. Her publications include *Emily Dickinson* (1986).



Unquestionably the greatest current impetus to *ad hoc* creativity has been the explosion of electronic and social media. Having sprung up spontaneously in 2011, the now-worldwide Occupy movement remains flexible and anti-institutional, employing social media as guerilla political discourse. In one photo, an Occupy Wall Street protestor holds up a—deliberately?—raw, uneven-edged cardboard placard (use what you have). “JUMP! You Fuckers!” it declares, its obscene wit assaulting the flag-draped neoclassical façade of George Post’s 1903 New York Stock Exchange building.<sup>4</sup> As the need has arisen, the Occupy movement has morphed into numerous groups and sub-groups, websites and blogs that proliferate and disappear. At the moment, Occupy Boston publishes the Boston Occupier, has a webpage ([occupyboston.org](http://occupyboston.org)), a YouTube page, an internet radio station, several twitter feeds and hashtags, live meetings and socials, but the real daily communication takes place on Facebook.

Facebook and Twitter users notoriously invent *ad hoc* personalities. Like the haiku, the 140 character tweet limit has inspired feats of compression: phonemic, as in **182**, “I hate you”; visual, as in **<3**, “I love you”; the emoticons **:)**, **:|**, **:(**; and hermetic, as in **420** for pot smoking.<sup>5</sup> The playroom and dorm-like common room environments of the Apple, Google, and Facebook HQs encourage inventive

group play, an experience mimicked in immersive narrative games series such as the *Super Mario Bros*, *World of Warcraft*, *Game of Thrones* (from a novel series), and *The Sims*. Built-in options give the (usually male) player the sensation that his *ad hoc* avatar is making resourceful *ad hoc* choices according to immediate narrative circumstance.<sup>6</sup> If you want your *Sims 3* narrative to have parents or pets, however, you must purchase the Generations or the Pets Expansion for an extra fee. Your narrative pleasure is Electronic Arts’s profit, even if the paywalls of your playpen are located far enough away that most players no longer bother to make them out.

4. For which the pediment sculpture by John Quincy Adams Ward seen in the photo is, appropriately, an allegorical representation of Integrity Protecting the Works of Man. In pictures, see [ranker.com/list/the-best-occupy-wall-street-signs/pilgrimsprogressive](http://ranker.com/list/the-best-occupy-wall-street-signs/pilgrimsprogressive).

5. 420 derives from code used in the late ’70s by San Rafael, California, teenagers referring to a marijuana-finding event in their lives. It spread by word of mouth to Grateful Dead followers, and thence worldwide. April 20 (4/20) has since become an underground national holiday. See Ryan Grim: “420: How ‘Weed Day’ Got Its Name,” *Huffington Post*, 20 April 2012.

6. *Sims 3* promotional text on Amazon.com, September 2012.

The sun-dappled forest feeling you ought to have when doing laundry. Photograph by Markus Müller



## The Centre Pompidou

The winner of the competition for an arts building in Paris was announced in 1971, and a six-year design development of a building for the *plateau* Beaubourg began. The Centre Pompidou, as it was finally called, is a wide-span megastructure with a comprehensively designed and settled framework, and most of the rest is capable of variation. In its design development an adhocist strategy called a performance specification, not usually employed on buildings, was used by the architects for many parts of it<sup>7</sup> (see right).

Appropriately, there is a neat French saying that illustrates the principle: *le chemin se fait en marchant*; the path is made by walking it. A path is an informal course but never a random one. It is an *ad hoc* construct made by people, ants, chickens, and other animals that embodies economic or available means—that is, shortcuts—toward an objective.

For many architects and designers, the building of the Centre Pompidou in the mid-70s was an indelible lesson: an assured and overwhelming demonstration of performance specifications in architecture. For everyone else as well as designers, despite its settled megastructure it was a building that gained its prestige and much of its architectural appreciation through its adhocist look—a prince dressed as a gypsy. When the Centre Pompidou opened in 1977 architecture achieved its first polemical adhocist design of worldwide interest and importance. We later ascertained that Messrs. Piano and Rogers hadn't read our book, but some of their assistants had. They didn't all need to. Adhocism was in the air, in its full Zeitgeistiness.

## The resource-full computer

Things that we did notice earlier have been transformed. To an extent unrivalled even by advertising, the “resource-full computer,” the phrase used by Charles in *Adhocism* (1972) while discussing new adhocist techniques of consuming (p. 63), has now of course captured our entire existence. The computer began turning into a public resource a decade after our book was published with the Internet Protocol Suite. It was gradually improved through the development of email, the World Wide Web, and efficient browsers through the late '80s, fully coming into its own in the late '90s. (Not that we can say with any confidence that “fully” has arrived.)



The Centre Pompidou, Paris. Piano and Rogers (1977). Despite its conception as a wide-span megastructure, the partial reliance on performance specifications where appearance wasn't uppermost in importance and its *tripes* on the outside made the Centre Pompidou a bomb-shell, giving it an adhocist look that registered worldwide. Photograph by Nathan Silver

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7. The cause of performance specifications is advanced by me in *Adhocism* (1972) (pp. 175–77 and 179), mentioning that they were beginning to be used in defense and education. In truth I deliberately rushed the strategy in order to promote it. Performance specs at the time were almost exclusively employed within contracts for engineering works such as nuclear power stations and offshore oil rigs. It was usually believed, erroneously, that they were advantageous only where looks didn't matter. A detailed account of the Centre Pompidou's design process appears in my book *The Making of Beaubourg: A Building Biography of the Centre Pompidou, Paris* (1994).



On the same page Charles suggests the future development of computer capabilities by the FBI or CIA. As later history relates, its form was actually determined following a proposal in 1989 by Tim Berners-Lee and first implemented by an almost as powerful body at CERN. The scissors that cut the tape to open the “information superhighway” (the phrase Al Gore used in touting it in 1993) was its 1995 commercialization after NSFNET was decommissioned. But in truth it wasn’t hard to predict that something big was coming. Everyone was hoping that personal computers would be pervasive and revolutionary, apart from a few deep thinkers who said their cost would prevent it.<sup>8</sup> And revolution may still be an underestimation in upheaval. In 2012 as this is written, nearly every computer user is familiar enough with Google search terms, mostly by trial-and-error experimentation, to achieve the research capability that required the rigor of university training in 1972. “Only connect,” as E. M. Forster said in his epigraph to *Howards End*—better than a lucky foresight in 1910.<sup>9</sup> Inventories are now searched, prices checked, and purchases are made by millions of individuals and hundreds of thousands of corporations. The management and security of payments alone has become a colossal internet endeavor.



*Shower* (1984), Richard Wentworth. Wentworth’s provocative work—a model ship’s propeller in front, the lopsided balance of the table keeping the chain taut—exemplifies a virtual school of contemporary British adhocist sculptors who should have a book to themselves, among them Anthony Earnshaw and Tom Sachs. Tate Gallery. Courtesy Richard Wentworth

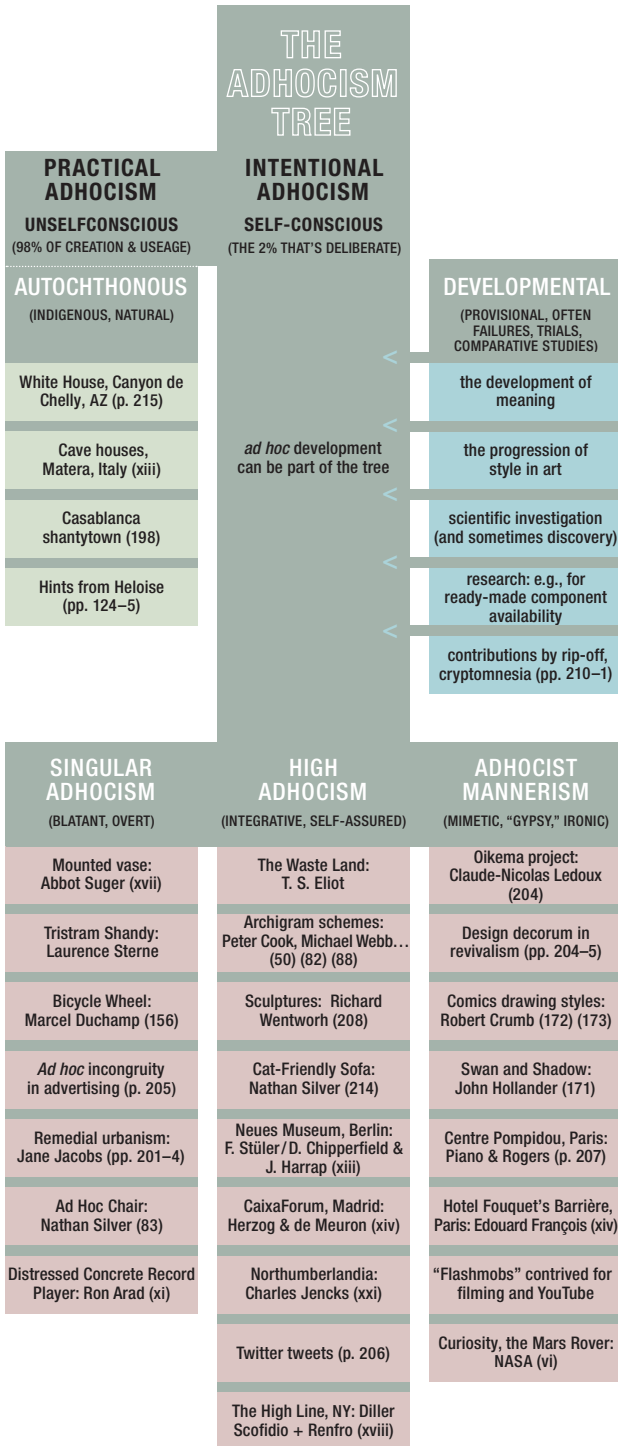
Moreover, as gratifying as the story is to ordinary lives enriched by information provision and electronic shopping, the effect of the communications revolution has been of colossal macroeconomic importance to capitalism. Commerce and trade have been transformed over the past several decades by what is called “supply chain management.” My apologies for using what sounds like a phrase off a jargon bingo card, but supply chain management (SCM) is the least unsatisfactory all-encompassing term for a new class of functional controls and procedures that is entirely adhocist in principle, and didn’t even have a name in 1972. SCM in efficient practice was inconceivable before specialized computer software applications were developed to implement it, but *autre temps, autre mœurs*—its global importance is now plain. The giant software companies Sage, Oracle, SAP, and many smaller ones arose as its mothers.

SCM is the deal that advances effective management and control over all the linkages in a business process. In its main applications, that might include trade-offs concerning the distribution or combination of goods, the management of inventory, and the logistics of location and availability. The just-in-time supply of components fostered by SCM has minimized warehousing requirements and shelf obsolescence, and is now central to the efficiency of companies like Apple that use it in combination with performance specifications to meet targets and increase profits. (The just-in-time inventory strategy isn’t so new. Toyota is credited for it in the late ’40s when scarcity ruled. Toyota supply communications then relied on *kanban*, paper tickets between different points in the manufacturing process.)

8. For example Ken Olson, the president, chairman, and founder of Digital Equipment Corporation, who said “There is no reason for any individual to have a computer in his home.” That now-famous comment was in a talk given to a 1977 World Future Society meeting in Boston. Olson later said he was quoted out of context.

9. Connection has its unready victims. From Seeking Alpha, an online stock market commentary magazine, 21 August 2012: “Brick-and-mortar retail nightmare: A study from research firm GroupM Next indicates that 45% of shoppers at a physical store will walk out and complete their purchase online if they can find price savings of 2.5% or more. At 5% savings, the number jumps to 60% of shoppers. The Amazon (AMZN) Effect continues to rev up as the numbers of shoppers who check product pricing on-the-fly with their mobile devices now stands at a whopping 44%. Pass the aspirin: SPLS, OMX, ODP, RSH, HGG, CONN, DKS, TGT, WMT, GPS.”





## NOTES

To generalize, Charles Jencks's view of adhocism is as a broadly associated continuum containing all sorts, with initial archetypes that have *ad hoc* attributes typically losing them in the process of development, becoming more and more integrated, and finally "seamless."

I think it's more complicated. As I tried to show in *Adhocism* (1972), I see adhocism as having different streams or branches. This chart is to provide further elucidation and clarity. (But it's only a chart.)

Adhocism is shown as a Tree of Heaven, i.e., growing from the top down. The examples in colored boxes don't signify that they are the most important, they are to help clarify the categories.

**1 Autochthonous adhocism** concerns indigenous and natural behavior. By a large measure most *ad hoc* creation and usage occurs for lack of anything better than the *ad hoc*, in resource-poor places where ideal solutions are unavailable.

**2 Developmental adhocism** is functional employment of the *ad hoc* in a provisional, usually investigative, way. It isn't necessarily part of the Adhocism Tree—often it is more like a separate symbiotic plant growing mutualistically (as diagrammed here), feeding the adhocism expressed further on. Sometimes it is integral within the tree.

**3 Singular adhocism** in a work is blatant and overt, unashamed about incongruity, sometimes confrontational. See the examples.

**4 High adhocism** in a work is confident, well adjusted, self-assured. Works may have very plain or quite subtle adhocist characteristics—confrontation isn't necessarily sought. See the examples.

**5 Adhocist mannerism** denotes works that are less *ad hoc* than they look. Expression of the manner is what matters. Actual *ad hoc* methods are token or absent (so it isn't "mannerist adhocism"). The work's main preoccupation could be antiquarian, mimetic, ironic, or just generally "gypsy." Adhocist mannerism isn't a negligible branch. Talented usage achieves power and obtains value from its *ad hoc* expression.

**3, 4, and 5** don't mean early, middle, and late. They are defined by motives and intentions.

**3, 4, and 5** could conceivably be considered elements of a continuum along Jencksian lines, but different motives and intentions usually separate them as distinctive branches. As a committed adhocist, my view is that when a work lies so far at the end of a category as to become "seamless," it's outside the canon.

In less open ways, SCM now facilitates analysis-based choices on the flow of money, the sharing—or secrecy—of information, and, with often fatal efficiency, staffing requirements. The key to effective SCM is allowing the greatest flexibility toward goals, using paths solely or preponderantly determined by time and cost savings. It's pure adhocism.

Of course it isn't always desirable to employ SCM purely. SCM has been responsible for the huge contemporary growth of outsourcing and "offshoring," often with grievous immediate effect as expensive homeland labor is shed for cheaper workers in poorer places. But the former domestic labor force's beef that it has been a socially disruptive process has to contend with the economic counterclaim of crafty capitalists that it helps the neediest and is the right course to take for eventual wealth equilibrium. In concurrence with that, the astounding economic rise of most Asian countries in recent decades is largely owed to benefits flowing to them through SCM, benefits sure to flow away again when labor costs in the lowest wage offshore countries start to rise and employment is successively redirected as it has been from Japan to Taiwan and South Korea to China, and now to India, Vietnam, and Indonesia. The unrestrained adhocism of SCM helps some of the neediest while dumping many of the needy.

As seen, the happy new day of electronic communications for individuals has given them (that is, given us) power, but it is very unequal, and will be for the foreseeable future, against multinational corporations in a cybereconomic arms race. The takeaway lesson of electronic communications on society is that it has raised *ad hoc* connective possibilities all right—beyond irresistibility. It's become our world, and if we don't welcome it, we'd better have the temerity and heroism of Jane Jacobs to change it.

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10. The altercation appears in letters in the *Architectural Review*, September, October, November 1975. Our letters followed an extended preview in the magazine of their forthcoming work.

### 3.

#### Memory, property, and *ad hoc* creation

As I resentfully recall, I have been a serial rip-off victim.

In the otherwise happy course of my work, an unpublished text of mine was gutted as research material for his own book by someone unprincipled, who adopted my insights as his own without acknowledgment, and even pinched my jokes. And a different book with the same title and subject as another of mine (though crummier) was published while the one by me was still in print, evidently to be passed off to unwary buyers.

Then there was *Collage City*, 1978, by the architectural theorists Colin Rowe and Fred Koetter. I won't use the word rip-off—quite—about that, but I had a cantankerous public exchange with Rowe and Koetter about the nonacknowledgment of *Adhocism* (1972) in their book, which, appearing several years after ours, made many similar observations and used some identical illustrations.<sup>10</sup> I was correct about their nonacknowledgment being ungracious and unacademic. Rowe/Koetter defended themselves by saying that *bricolage* had been around for a long while before we discovered it (Reyner Banham chimed in saying something similar), which was perfectly true—we repeatedly said so ourselves, as you've noticed in this book—but beside the point.

I raise the subject of rip-offs because in *Adhocism* (1972) we endorsed the wisdom of perceiving the inevitability of every creator's dependency on predecessors; and as a subjunctive but also vital proposition, we piously stated a difference between fair swiping with I.O.U.s and underhanded stealing (see pp. 70, 129). Today we know more about the difficulties, and steamroller breadth, of the attribution issue.

For Colin Rowe, an estimable architectural thinker now sadly deceased, his superego may have battled unsuccessfully with his id. Even small failures to acknowledge intellectual property can be embarrassing if not costly to the borrower, as well as painful to the borrowee. But recent research has also suggested that the greatest problem area may lie in the brain's obfuscating narrative when absorbing original thinking, upon which it says "That brilliant idea was mine, wasn't it?"

The science writer Matthew Hutson describes his concern about *cryptomnesia*, the recently revived

early psychiatric term for a formerly opaque internal process that has lately been undergoing fascinating scientific study owing to the growing experimental ability to investigate the mind and brain:

Our inability to properly monitor the sources of our ideas leads to the common phenomenon of cryptomnesia—thinking that what is really a memory is actually a new idea—and in some cases inadvertent plagiarism. In brainstorming tasks, people will often repeat others' ideas without realizing it. To counter cryptomnesia while researching my book, I make note of when I come across an idea that surprises me so that I can accurately attribute it later. It's easy to absorb an idea and then believe honestly that it was generated by yourself. (Or, more subtly, to remember where one first heard an idea but later find it no longer surprising and in fact so obvious and intuitive that it doesn't deserve explicit attribution—a type of hindsight bias.)<sup>11</sup>

There is a bigger arena that embraces adhocism and the question of intellectual property. In the last 15 years patent and copyright litigation has become the attribution-steamroller's steam whistle. A battle has been raging between Apple and Samsung—one of Apple's main component suppliers, and likely to remain so—over fine details, such as the corner radius of smartphones, that seem logically impossible to settle by court appeal-following judgment-following appeal. (\$1 billion in damages was awarded to Apple against Samsung in August 2012 by a San José jury, but how much money will eventually move in which direction currently remains unknowable.) Giant software companies are now in constant courtroom contention over the proper ownership of finely drawn differences in machine code, with huge compensation or damages sometimes at stake. Hordes of dubious mercenary claimants have arisen, characterized as "patent trolls" by the tormented. On the battlefield of jurisprudence patent trolls sometimes win, and even plausible contestants have often had indecisive outcomes. Borrow-or-steal adhocism is full of legal bullet holes, but it keeps coming on.

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11. Matthew Hutson, "Inception Is Easier than Extraction," in *Psyched!*, 20 December 2010. My thanks to the Australian journalist Elisabeth Wynhausen for drawing cryptomnesia to my attention, and to Helen McNeil for noting that unconscious disingenuousness was called "paramnesia" by Freud in his casenotes on "Dora."

12. See Jean Piaget: *The Origins of Intelligence in Children; The Child's Development of Space*; et al.

13. For example, Walter Gropius's folkloric pre-Fagus factory architecture.

In sum, my rip-off and near-plagiarism experiences, the new understanding about cryptomnesia, and the recent history of patent and copyright lawsuits, suggest that the appropriation of others' ideas may be less a fastidious moral question than an unstoppable functional one. Leaving aside the torts of exact textual plagiarism, overt patent thefts, and unauthorized copyright appropriations, we all may be lifelong innocent connectivists and assimilators no less than the infants and children that Piaget studied in the 1950s and '60s in his work on cognitive development.<sup>12</sup> We all swim freely in an intellectual plasma, the only world we know, where connection apparently requires no more than consciousness.

It would be naive to suppose that the swim we're in is random and value-free because Piaget's work with infants and children indicates otherwise. Evidently a governing regulator quickly emerges that puts an experiential premium on utility and value. Well, if so, eureka: randomness controlled by value-seeking would appear to be the first definitively *ad hoc* process of intelligent life. Or to put it another way, the quest for contextual connection, association, and meaning must be a regulated developmental process governed by the reward of success, somewhat analogous to the Darwinian mechanism of survival. Semiotic and linguistic theory prepared us for this, but the theorists may now be receiving some worthwhile experimental confirmation. Overall, a full-on conflict has probably begun between, on the one hand, free use, and on the other, the resistant defenses of intellectual property that have been devised to protect company profits, authors' livelihoods, and biotech companies' cost of research. In 2012 it still isn't easy imagining an ideally transparent sphere that's big enough to hold memory, property, and *ad hoc* creation.

#### 4.

##### ISM or is it?

The Bauhaus has been rightly admired for the scourging purism of its famous designs, but the designers' brilliantly simple teapots, door handles, and factory facades emerged after a process of struggle with tradition, usually ignored by admirers, that is at least as instructive.<sup>13</sup> It's a fair guess that design purism probably gained its prestige through flattering analogy with other presumed puristic effusions, such as outbursts of *de novo* genius and the concept of sainthood. Such unanalytical admiration appears to have disappeared in the 21st century.



In architecture it was felt as the beginning of a new way of thinking prepared to venture beyond the purist doctrines, formal models, and Radiant Cities of modernism—anticipated before 1972 by, among others, Jane Jacobs’s 1961 demand for mixed uses and the historic city’s rich display of old and new buildings in *The Death and Life of Great American Cities*, and the Archigram group’s influential pamphlet architecture in the early ’60s (they didn’t build any of their lashed-up, rigged-together-looking designs until years later). The Centre Pompidou was designed and built in the 1970s. Venturi, Scott Brown, and Izenour’s substantially adhocist *A Significance for A & P Parking Lots, or Learning from Las Vegas* was published in 1972, and Rowe and Koetter’s *Collage City* in 1978. And it went on. At an uncertain date Adhocism made it into the *Shorter Oxford English Dictionary* (which defines it as “the policy of improvisation”). In July 2011 there was even an adhocism installation at the Museum of Contemporary Art in Chicago, called that, but uncontributed to by us.

Recent words deriving from popular music production that have sometimes been used synonymously for constructive adhocism are “remix” and—with possibly more precision—“mashup.” Kirby Ferguson gave a TED talk in Edinburgh in June 2012 entitled “Embracing the Remix” that he outlined as “copy, transform, combine,” making familiar observations about the law and creative people (“everything is a remix, so steal like an artist”). The spirit of adhocism is not only still in the air, it might be the nitrogen.

*Adhocism* (1972) was criticized by some for pointing out the obvious, which indeed is what we set out to do. Our excuse is that the obvious, like the new clothes absent on the emperor, was by no means acknowledged, and there was a conspiracy of silence or even widespread collusion against the naked truth. As we saw it, democracy, design, urbanism, the concepts of originality and innovation, and the methodology of scientific inquiry had been (often still are) in tendentious denial about an important aspect of the obvious. We counter-tendentiously provided a frequently overlooked glimpse of that aspect, critically handicapped, of course, by the truism that a denied obviousness once revealed can only seem obvious. Our view preferred recognition to cryptomnesia.

Some reviewers also supposed us to be promulgating an adhocist “philosophy.” It was generous of them to

effectively put adhocism on a plane with Bentham’s utilitarianism, probably the nearest particularity that has been called such. But fain would I say so myself. Our interest then and now in making the case for improvisation was to discover and recall the perennial vitality of adhocism. We wanted to make designers more aware and others less dismissive about—to pinch Cole Porter’s metaphor—the gypsy in us.

Stowe School in England has a didactic curiosity designed in 1734 by William Kent: a monument called the Temple of British Worthies, with niches for 16 busts (*inter alia* at Stowe, they include Shakespeare, Milton, Pope, and four monarchs). If, with similar didactic intention, some successor to Simon Rodia was to receive a commission for a Temple of Adhocist Worthies—to be built on an ironic site, such as a place where permanence is taken for granted but is realistically quite unlikely, like above a nuclear waste



The Upcycle Robot, London (2012). ROBOTS>>>> is an art collective that makes humanoid sculptures, usually large, mainly from scrap wood. This sculpture featured at the Canning Town (London) Festival of Upcycling, 2012, an event for the design and manufacture of new products out of waste materials. Photograph by ROBOTS>>>>



*Camera Obscura Image of Santa Maria della Salute in Palazzo Bedroom, Venice, Italy (2006).* A preoccupation of Abelardo Morell's art photography that revives the great optical discovery of the 13th or 14th century. He brings the outside in through a tiny pinhole, and the natural projection of optics produces a sharply focused upside down image on the opposite wall of the room with all its hangings becoming part of the screen. He then

photographs the room and projection with an 8 x 10 view camera. This palazzo bedroom is on the Grand Canal directly across from the projected Santa Maria della Salute. Working worldwide, Morell's striking *ad hoc* juxtapositions of dramatically tumbled cityscapes in attendant darkened rooms magically capture historic, memorious coexistences. Photograph by Abelardo Morell

cache—my nominations for the Worthies would be: L. B. Alberti, J. Jacobs, M. Duchamp, C. Eames, L. Sterne, J. Joyce, R. Rauschenberg, B. Goff. Some great but inconsistent adhocists could be deemed quasi-worthies: I. (that's Inigo) Jones, A. Gaudí, T. S. Eliot, P. Picasso. W. Shakespeare might put in an appearance in our alternate Worthy league as a quasi-worthy adhocist since he frequently pinched plots, but that wasn't unusual for Jacobean playrights.

I adhere to Charles's Adhocist Manifesto (p. xix), but quibble about a few particulars: (item 3), adhocism doesn't always appear hybrid or heterogeneous at the start (cf. chemical reactions; *Hamlet*); (item 5), the *ad hoc* isn't always "the best subsystem," it's often an expedient bodge (cf. entertaining children; guerrilla warfare); (item 7), adhocism is "first cousin" to plenty of things short of full-on eclecticism—for example, redecoration with a different color of paint.

For a more provocative title, I favor "Adhocism: The Dark Matter of Design and Invention" rather than Manifesto. Dark matter is thought to account for a large part of the total mass of the universe. The borrowed metaphor strikes me as Jencksian, it correctly pings at around the googol  $1.0 \times 10^{100}$  scale, and it might annoy some stuffed shirts in cosmology.

### Adhocism lives

In 2012, it comes to this. Though I believe that puristic effusions haven't survived strongly in the 21st century, adhocism hasn't shed its cloak of near invisibility yet. At the opening of the Centre Pompidou in Paris on January 31, 1977, I felt sure its future fame would lead to many more buildings being built with their *tripes* on the outside, just as the similarly winning, built, and influential design of the Boston City Hall competition in 1961 was followed by many towns in America soon getting little Boston City Halls to grace their civic centers and shopping centers.

Not exactly. Adhocism continues to live now and it is extremely healthy, but the Centre Pompidou in particular has no more branching descendants in the architectural tree of heaven than the platypus has in the biological one. Both still cause onlookers skeptical amazement: one by seeming a laid-back nondesign, though its design is considered and powerful; the other looking an impossible beast, though it scampers around Australian streams chomping crustaceans and looking cute.



Cat-Friendly Sofa, Nathan Silver (2004). My cat Tupac had tattered the sofa's upholstery. Creatively challenged, I designed a slide-over carapace for the sofa frame, covered with cedar shingles that could be individually replaced when they got clawed. The cedar material recalls beach houses of my summer holidays when young. The zorchy angles respond to the shaped painting by Richard Smith above. Disappointingly, Tupac now ignores the sofa and sharpens his claws elsewhere. Photograph by Liberty Silver



Propstore, South Bank, London: Nick Murray, Emma Morris (2012). Rear view of a summer nonce-café on the riverside pedestrian promenade adjacent to the National Theatre, created *ad hoc* from redundant production scene pieces used in *The Comedy of Errors*, pseudo trees from *She Stoops to Conquer* and seating from *The Cherry Orchard*. Elements of *Frankenstein*'s lighting design help the atmosphere. Selected props integrated include a crocodile from *Peter Pan*, a polar bear from *His Dark Materials*, and a goose puppet from *War Horse*. Photograph by Nathan Silver



So *Ism* or *izzit*? There is nomenclature negativity. With adhocism, the naturally adhocist craftsmen and *bricoleurs* are often the people most likely to scorn any poncy art historical-type label. They and some others would doubtless deny that adhocism was an *Ism* in the first place: things just happen; you work with what you have; “true originality is merely development” (Eliot); “[I] created *Maidstone* out of the given” (Mailer), etc. They are right.

At the same time, they are wrong. The label explains something—call it instead, if you like, the deathless component of nostalgia, or cryptomnesia without shame—and was intended to encourage it. It seems vulnerable because adhocism is so ecumenical that the *Ism*’s usage, its sometimes polar-opposite valid interpretations, and its critical dispensations are usually optionally capable of being noticed or ignored, like the irritating prayers of well-meaning religious friends for your deceased atheist parent. You may say that flashmobs contrived for filming and YouTube are adhocist events, or deny it (because they aren’t really improvised; most people can’t tell what they are; or who cares?). Your prayers may or may not be appreciated by the grateful dead and those living, and there is no proof they can help.

Nevertheless, for me adhocism is the most vital of *Isms*, with a recorded history going back as far as we can go. It is precisely the sense of it that fills us with wonder when looking at the sunlit view of the so-called White House in the Canyon de Chelly, Arizona, in Ansel Adams’s classic 1942 photograph (see right).

We see the cataclysm-shifted, striated cliff that has its overhanging, reverse-sloping face broken by a cave that is just a jagged fissure in the rock. On the rim of the cave, under an S-shaped line of beauty in the brow that Adams captures in the hour’s shadow, there is the ruin of a consolidated dwelling that was built about 1200 AD, as close as anyone can determine.

Unlike Stonehenge, whose materials were dragged from a far-away quarry (constituting a determined assemblage more shleppist for obscure purpose than adhocist), the canyon builders worked with what they had: a defensible position in a schism of stone. Only their long ladders had to be made of timber poles brought from far away.

As we can see from color photos or if we visit, the coursed stone blocks of their dwelling are split from the same stone of the cliff. Human endeavor, working with what they have. That’s all. What is *ad hoc* here expresses only the most simple thing: the difference between nature and art.

Built at the time of transition when shelter by design began to supplant shelter by nature, it is a work of unselfconscious practical adhocism at its most elemental, autochthonous, and awesome. If you close your eyes, you can just see people living there and textiles hanging to dry over the edges of the windows. And the beauty of what they achieved was an *ad hoc* consequence of what they set out to do.



White House ruins, Canyon de Chelly, Arizona (1942). Photograph by Ansel Adams, U.S. National Archives and Records

# Photo Credits

## 1972 EDITION

Frontispiece Burk Uzzle, Magnum, New York

- (1) Women's Liberation Camera Press, London
- (2) Boat from trees Duhamel du Monceau, 1753
- (3) Carved Staff British Museum, London
- (4) Japan Assembly Line Japanese Embassy, London
- (5) Spain Doorhandle Charles Jencks
- (6) SOM Air Force USIS
- (7) Drop City Drop City, Arizona
- (8) London Shed Charles Jencks
- (9) Athens Church Nathan Jerry Maltz, New York
- (10) Park Avenue Charles Jencks
- (11) Arcimboldo Collection Cardazzo, Venice
- (12) Picabia Collection Simone Collinet, Paris
- (13) Heartfield John Heartfield
- (14) Kurt Seligmann Agence Images et Textes, Bazainville, France
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- (38) Cugnot's Car Science Museum, London
- (39) Bug-Eyed Monster Sam Lambert, London
- (40) Homologous Stru. after *Life, An Introduction to Biology*, by G. G. Simpson
- (41) CAM General Electric
- (42) Skulls after D'Arcy Thompson
- (43) Marsupials after A. C. Hardy

- (44) Homo Monstrosus from Liceti's *De Monstris*, 1665
- (45) Madonna Charles Jencks
- (46) Ski-Messer Mehrens Pressbild
- (47) First Autos After Eco & Zorzi, *Pictorial History of Inventions*, Weidenfeld & Nicolson, London, 1962
- (48) Car Evolution Encyclopaedia Britannica
- (49) Future Car Gabriel Bouladon, L'Institut, Battelle, Geneva
- (50) Mobile home Archigram, London
- (51) Flow Chart Environmental Systems Group, University of California
- (52) *Ad hoc* Radio Charles Jencks
- (53) Unimate Unimate
- (54) Gen. Electric General Electric
- (55) Regency Charles Jencks
- (56) TV Tom Murray & *Sunday Times Magazine*, London
- (57) Dog-Fire private collection
- (58) Table-legs Charles Jencks
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