Junk Jet 3
flux-us! flux-you!

Junk Jet n°3 asked for fluxing architectures, boogie, buildings, rolling rocks, flying architectures, provisory pyramids, and temporary eternities; for all kinds of practical concepts and conceptual practices, for stable happenings and unstable thoughts, for lifted cellars and dug-in landmarks, for curtains, mobiles, house boats, bubbles, zeppelins, flying saucers ...

... it received fantastic forms of material, immaterial, physical and mental flux. Not only were immovables made movable, but also were put forth moving ideas of aesthetic, social, and political concern.

We recognize that it is in microarchitectures, where architecture resides today, that speculations cannot be hilarious enough, and that the post-digital is the era, we already live in.

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previous spread: NOWHERE–EVERYWHERE by Claude Closky last spread: SOMEWHERE–ANYWHERE by Claude Closky

The Flying House

Flying Bus
Future Cards, 1900

„A look to the future: The boy of the present has a glimpse of the twentieth century boy." from Minneapolis Journal, December 29, 1900 by Charles Lewis

A Card Picturing Futuristic Visions of Ballooning, 1795-1846

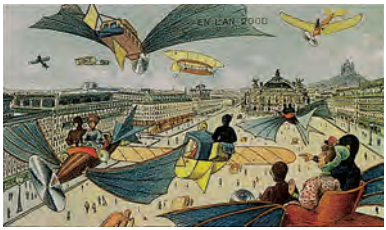
Flying Firemen: A vision for the year 2000, Villemard, 1910

Swinging House, Russia

FLY!

Flying Police: A vision for the year 2000
Villemard, 1910

Flying Bus



The Avenue of the Opera: A vision for
the year 2000, Villemard, 1910

Mobile Home (Farm)
Image by Peter Garfield

Flying Car

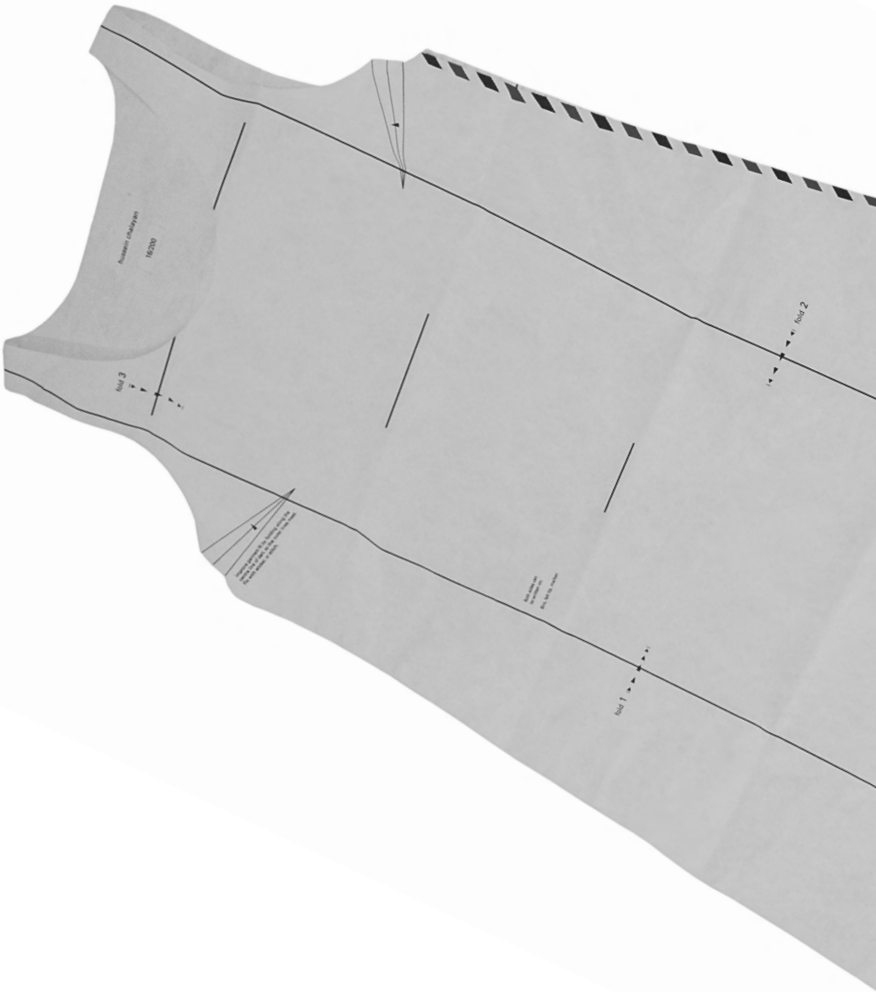
Propeller-Driven Car Hanging
from Monorail

„Fusion Man“ Flying
Over Alps with Jet
Propelled Wings

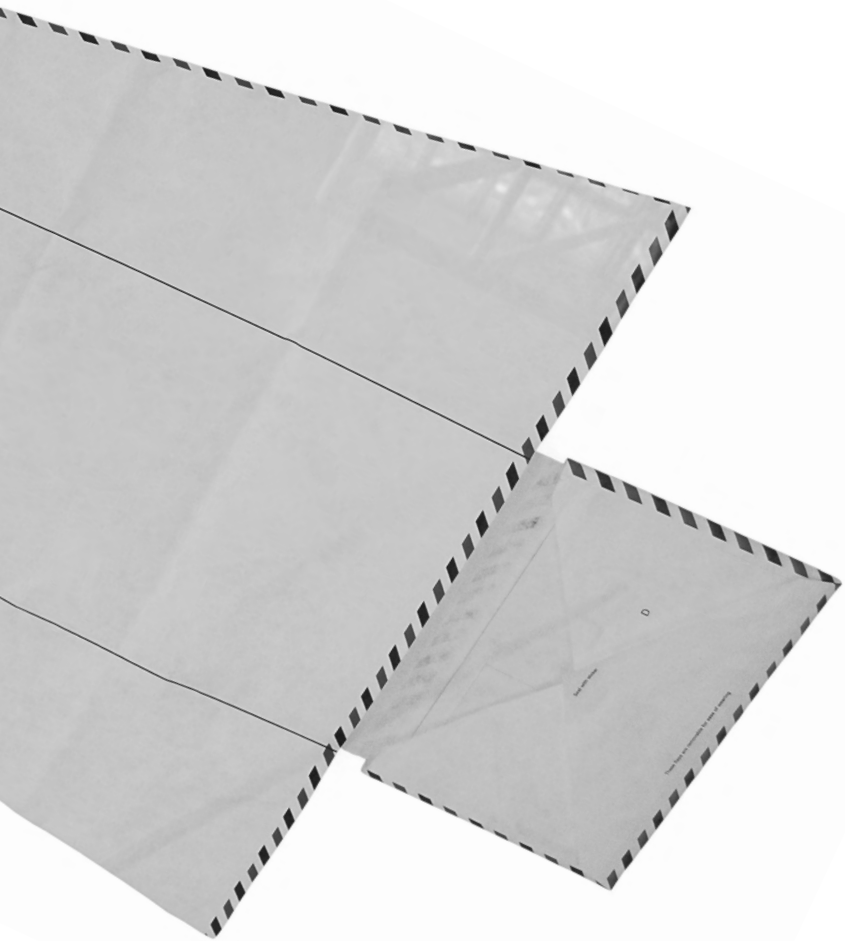
Norman Bel Geddes‘s Mo-
del for a Flying Car, 1945

Flying Saucer
Home Futuro, Matti
Suuronen, 1960s

Hussein Chalayan
AIRMAIL DRESS



Photography Matthew Pull



YOU:

An Airlock Lexicon

Greg J. Smith

Once you start thinking about kinetic architecture, the distinction between structure and vehicle becomes hazy and difficult to define. So while architecture might move or "operate", space doesn't. Space is static, the void within which architecture happens—that which is compartmentalized.

One of the most performative architectural assemblies ever devised is the airlock, a mechanism that permits passage between regions with different air pressures or gases. Airlocks provide a buffer zone between incompatible environments and are a perfect example of how architecture can function as a spatial interface.

Airlocks are extremely important to maintaining a habitable environment within spacecraft so it is not surprising that they have become a key site of negotiation and conflict in science fiction—what happens in the airlock seldom stays in the airlock. This is an enclosure where we confront the otherness of deep space, not necessarily the "other" of an alien species but that of the postspatial void, a frictionless vacuum that is completely inhospitable to life as we know it. An exercise in precision-engineered xenophobia, the airlock is the threshold between architecture, technology and the unknown.

The following lexicon provides a quick overview of all things airlock.Boyle's Law—The inversely proportional relationship between the absolute pressure and volume of a gas if the temperature is kept constant in a control environment. This law guides gradual pressure transitions that minimize stress on air seals and bodies.

Diving Bell - A cable-suspended chamber that is lowered underwater to transport divers. This enclosure is lowered slowly into the water while oxygen is pumped into the volume from the surface. This oxygen and a slow descent provides air for divers to breathe and maintains air pressure within the space. Diving bells have been widely used for more than 2,000 years.

Explosive Decompression - A sudden drop in pressure in a sealed system where the speed of decompression is faster than air can escape from the lungs. While explosive decompression can lead to lung trauma the phenomenon is often hyperbolized as "Hollywood science" whereby rapid depressurization leads to exploding heads, eyes and grotesque swelling (see "Total Recall", "Event Horizon", "License to Kill").

Flight 243 - A real-world example of explosive decompression that occurred on April 28, 1988. In this near-disaster the cabin of Aloha Airlines Flight 243 was blown open. While 65 individuals were injured there was only one fatality - flight attendant C.B. Lansing, who was blown out of the airplane.

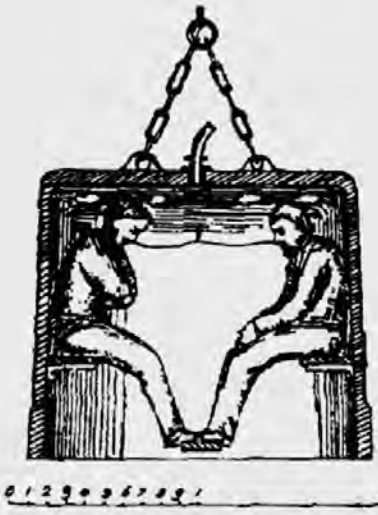
Glovebox - A micro environment that operates similar to an airlock where objects in a sealed box with a separate atmosphere are manipulated by an outside user. These enclosures have three characteristics: they are airtight, partially transparent and equipped with gloves that maintain the volumetric seal. Gloveboxes are regularly used to facilitate working with hazardous materials.

Interface Aesthetics - In speculative fiction, the emptiness of the airlock is almost always accentuated with a control panel that can modulate architecture and the environment. A fight or minor catastrophe is not complete without a carefuly cropped technological fetish shot that frames interaction and registers a shift in the storyline.

Quest Joint Airlock - The main airlock for the International Space Station since July 2001, the Quest facilitates collaboration between Russian and American astronauts. Equipped with fixtures for various spacesuits and equipment, the enclosure provides a zone for congregation prior to a spacewalk.

Spacing - A favourite means of homicide or execution within science fiction where an unlucky individual is tossed out of an airlock into the indifferent vacuum of space. Notable examples include the climax of the first two films in the "Alien" franchise and the death of Hugo Dax in "Moonraker". Spacing is to sci-fi as "walking the plank" is to nautical piracy and defenestration to architecture.

Voskhod 2 - A Soviet space mission that took place on March 18, 1965 in which Alexey Leonov became the first human to execute a space walk. During the walk, Leonov's suit inflated and stiffened and on returning to the Voskhod 3KD spacecraft he could not fit into the airlock. Miraculously, Leonov was able to release some of the pressure in his suit and squeeze back into the ship.



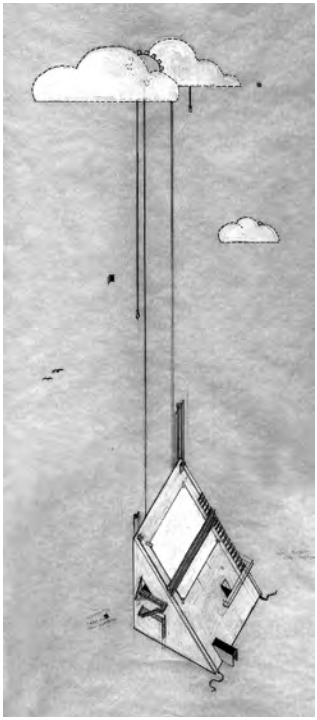
Tom Ngo
ARCHITECTURAL ABSURDITY

Common sense and conventional practice prohibits the evolution of architecture. Through reproducing past models for efficiency and economy, routine thinking preserves the flaws of the standard model. Using different frameworks of thought, architects can create new solutions, which rectify the faults of the norm, and distance themselves from making habitual design decisions.

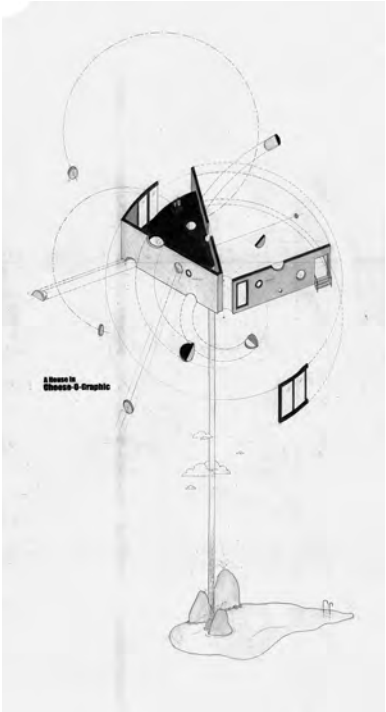
Built on the foundations of Victorian Nonsense, Alfred Jarry's 'Pataphysics, and Absurdist Theatre, Absurdity expands the limits of human reason by presenting a paradoxical solution. By allowing solutions which would normally have been ruled out due to irrationality, absurdity provides non-linear alternatives which interrogate contemporary logic.

Thus, absurdity is a rhetorical device aimed at questioning (architectural) conventions. Architectural absurdity playfully transgresses within the rules of building formation to create valid alternative assemblages while scrutinizing regulation. The resultant architecture redefines the rituals of program and questions the notion of typology. Unbound by strict conformity to logic, the liberated architect breathes new life into architecture.

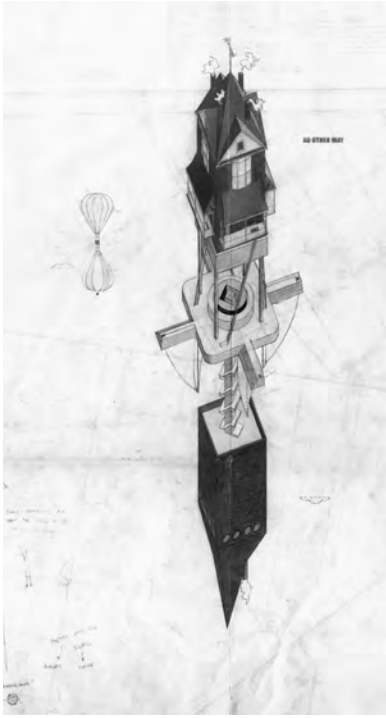
Coloured Pencil and Graphite on Paper



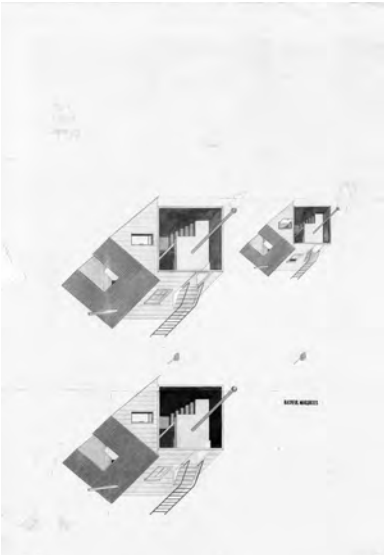
In Its Time it Was the Largest Drafting Board in the World
There has always been an urge to obtain large-sized drafting boards in order to draw on larger paper. This particular one grew unimaginably big, utilizing an entire face of a building and counter-weights anchored into clouds.



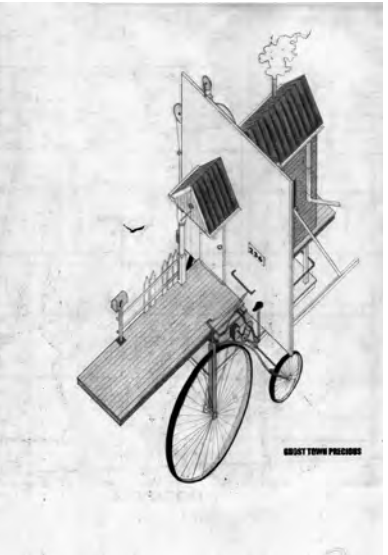
The Cheese House
This is an exploration into a radially exploded axonometric drawing. Counter to most exploded axonometric drawings which project orthographically, pieces of the structure are projected radially leaving a swiss-cheese like building.



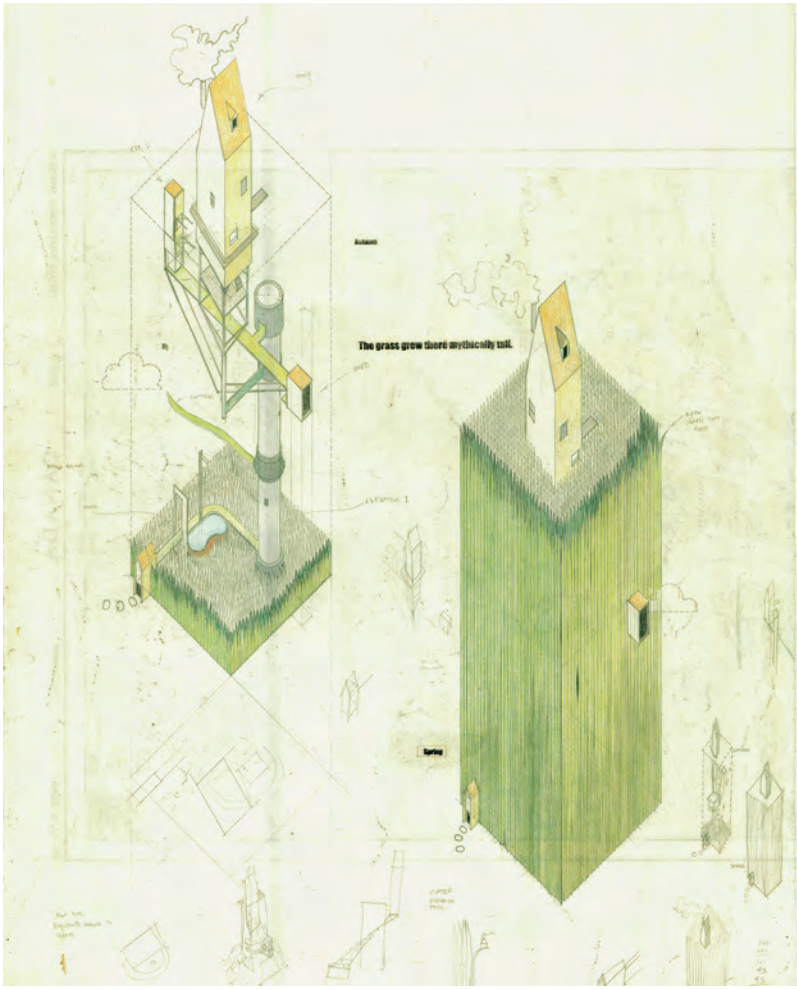
No Other Way
A dream house for a meat grinder collector. The above building is constructed of four like facades presenting him a new home every time he arrives by balloon. The structure below is a mental retreat from his constantly changing everyday.



Bashful Mailboxes
The illogical repeated.



Ghost Town Precious
This construction combines the themes of permanence and the ephemeral. Shoddily constructed with hints of integrity, the structure has a ghost-town quality.



The Grass Grew There Mythically Tall
This drawing was constructed on the premise of altering the properties of grass and exploring the architectural implications. In the spring when the grass grows long, the house peaks through the top of the greenery. As the grass recedes in the winter, the underlying structure is revealed.

Jim Venturi
SAVING LIEB HOUSE

A film of Robert Venturi and Denise Scott Brown's building during flux

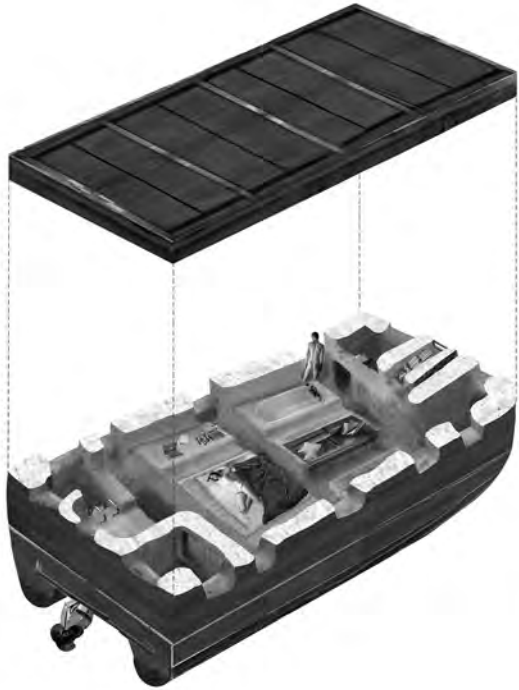

9
NORTHSTAR MARINE Inc.

Aristide Antonas
THE FLOATING ROOM

[A catamaran designed as a single room. Its top forms a platform that, at the same time, protects the interior from the sun and serves as a small mobile beach.]

The floating room is proposed as a way of working within the space of image archives. It shows a systematic attitude to interpret disjunction. We have to firstly confess that there are three elements in this strange archaeology of the floating room that are not immediately obvious to the viewer.
The first element is a precise warehouse door photographed in Crete in 2005. I worked on this door and presented it already in 2004 Biennale di Venezia as a no foundation building. The second is the paper "emballage" interior of a NOKIA cell phone, model of 2006. I photographed it and started a work of distortions and virtual deformations of the images I had. The third element is a typical catamaran boat photographed in the port of Volos in May 2008.

The floating room work represents a meeting between those three images that do not belong to the same family. The idea of assembling together disjointed elements... Can we put together everything with everything else? How does a meeting of this kind could become meaningful? We search for a sophistication of the „mises en scene" of possible elements. Interesting assemblages probably lead to strange, particular, heterogeneous units. From a structural point of view, we do seek the linguistic depth of images. The German language very clearly presents the assembling capacity of putting notions together. What about images treated as notions? We may not be allowed for instance to put together a fire and a kitchen in the frame of this assembling. The fire is already included in a kitchen. Putting together a stone and a monument, we will get a boring, obvious result. But maybe we can try to join the NOKIA box, the distorted warehouse door and the catamaran. The condensation of these three elements seems heterogeneous: the elements involved do not participate in common family groups. However, we need this difference in order to proceed to an assemblage. Just as with cooking and its recipes, but this time the result would be a collage. Out of this collage we will get a united simple form. The collage becomes a conceptual function; as such it can be read as coming from the idea of an archive. The result is a binding, a unification, a cementing process. We create out of the three elements of an archive a new

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one, posing as important rule that the elements we chose do not participate in same categories.
We may at first specify and then generalize this concept.
We have to specify, because the type of difference is crucial here: the rolling door of the rural warehouse is contrasting vividly to the carton NOKIA box. The catamaran is an empty receptacle. If the NOKIA box was in plastic, if it included air in it, then we could say that this could be an interesting object in terms of narration. It could float too. If we design a closing system we would have this object provided with a rolling door that suddenly could be called to function in a horizontal surface; then we will have another surprise and one more happy narrative paradox. Narration is structurally depending to paradox.

We can also generalize and think about contemporary works of assembling. The architectonic move of combining three separate elements, found in an image archive, actually gives us an idea about what thinking might be in the next era. Differently than intellectual investigations of the past, we may rather find thoughts' future dynamic closer to abstract irrational assembling processes. Assembling images may form the paradigmatic field of this future intellectual inquiry. Thinking would become a structural transformation of images. Such a treatment of this image potential is performed in the Floating Room project. Carrying in its single form a door, a box and a boat, it structures a kind of narration that needs neither linear argumentation, nor the rational subordination to any concrete, particular logic. This move of assimilation forms the mythological origin of an object without any objective presence. This may show a future rationality. Architecture could possibly replace a part of thinking. Aesthetic priorities could substitute the function of logic. Walter Benjamin would understand this as a big loss. Vilem Flusser already wrote about this possible future gap. After an assemblage as this one is done, we may accept it or not, build it, or leave it, adopt it, or refuse it. Adoption or refusal may show the limits of any thought proposed today. An assemblage is not proposed to be controlled within the context of any traditional, rational elaboration. It can be accepted or refused without reasoning. In the archive era this may be a possible framework for the future of thinking. •

Houseboat, Surat Thani, Thailand.

Houseboat, Koh Tao, Thailand

Floating Automobile Trailer Cruises Lake

Luxury Yachts Moving

Chinese Junk Boat

Interior of a Badeschiff by Jean-Jacques Poitevin, Spree, Berlin, 19th century

FLOAT!

„Das Welpersche Badeschiff an der Langen Brücke“ from 1803

Floating House for two Ducks, Istanbul

Noah's Ark, oil on canvas painting by Edward Hicks, 1846

„Cars can either drive over the 4.4km bridge to the island and park in order to admire the view or drive straight through to the tunnel entrance where they will be taken under the water for 9.5km until they reach Kawasaki.“

Floating Chapel

The Floating Church of Our Saviour... For Seamen, New York, 1844

David L. Hays

SENTIENT ARCHITECTURE
EMBRACING THE NATURAL VOLATILITY OF FORM

Embedded computation and smart materials (e.g., shape memory alloys, ph-sensitive polymers) have recently opened new horizons for so-called "intelligent building" or "sentient architecture," but functional, dynamic response can also be achieved using traditional materials and without dependence on discrete sensing technologies or electromechanical actuators.

This alternative (and arguably more authentic) understanding of sentient architecture – not buildings with sensors but buildings as sensors – critiques the age-old static ideal in architecture by embracing the natural volatility of form. Good performance in architecture has conventionally meant resistance to change, including environmental impacts. In contrast, sentient architecture gauges performance in terms of responsiveness to change, building on a model of navigation borrowed from the theory of landscape architecture. Like landscapes, buildings are not static entities but situated events. Inflected by energy, their components are constantly moving, and the forces involved are considerable. To defuse the impact of dimensional shifts, buildings are assembled with minimum restraint according to principles of structural design. Sentient architecture inverts the logic of structural design by exploiting deformations, exaggerating their implications, and projecting new outcomes.

Energy is an inalienable aspect of materiality, and, therefore, form is a dynamic middle ground between object and environment (e.g., form follows temperature). Architects usually discount that condition, arguing that the scale of deformations is below the scope of ordinary perception, and deferring responsibility for management to engineers. However, when structured and compounded, as in a building, small dimensional changes can produce significant and even startling kinetic effects, and the forces involved are often astonishing.
Through structural design, architects and engineers have collaborated to defuse the impact of inevitable, environmentally motivated flux. That operation is fundamental to what architect Greg Lynn has called „an ethics of statics" in architecture, a pattern of thought in

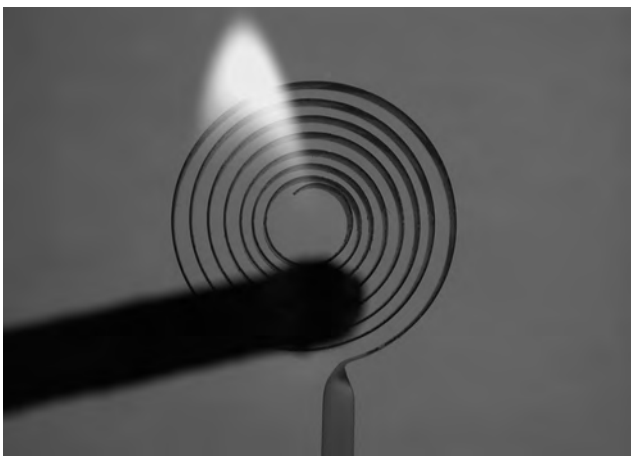
which the truth of natural dynamics is suppressed for the sake of a static ideal.[1] Lynn continues by suggesting that, „[b]ecause of its dedication to permanence, architecture is one of the last modes of thought based on the inert."[2] Yet, the inert – which, in thermodynamics, is designated by equilibrium – has only nominal relevance to reality: "equilibrium is by definition the last state arrived at by an unperturbed system; it is a universal rarity. It is important only as a guide to behavior, that is, as an indication of the direction in which natural events move."[3]

The „ethics of statics" in architecture is grounded in three ideas: that matter and energy can be disassociated, that the relationship between them is antagonistic, and that the role of design is to defend the former against the latter. But all of those positions fall apart when one understands that matter and energy cannot, in fact, be separated.

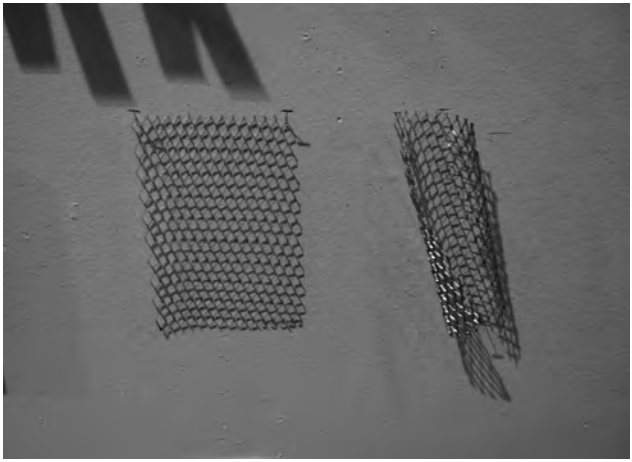
According to structural engineer Peter Rice, „The search for the authentic character of a material is at the heart of any approach to engineering design."[4] Rice suggested, furthermore, that „the most powerful way [...] an engineer can contribute to the work of architects is by exploring the nature of the materials and using that knowledge to produce a special quality in the way materials are used."[5] The nature of matter is to deform in response to shifting environmental energy. Sentient architecture embraces that natural volatility, conceiving built form in terms not of resistance to energy but of responsiveness to it. Acknowledging and exploiting the natural dynamics of form liberates architecture into a richer range of performative possibilities, with manifold practical and theoretical implications. An architecture of dynamic form abandons rigid ideals – the paradigm of architecture abstracted from reality – in favor of elastic exploration open to radical transformation. •

1 Greg Lynn, Animate Form (New York: Princeton Architectural Press, 1999), 9.
2 Ibid., 11.
3 John Wulff, Jere H. Brophy, and Robert M. Rose, Thermodynamics of Structure (New York: John Wiley and Sons, Inc., 1964), 2.
4 Peter Rice, „The Role of the Engineer," An Engineer Imagines (London: Artemis, 1994), 78.
5 Ibid., 77.

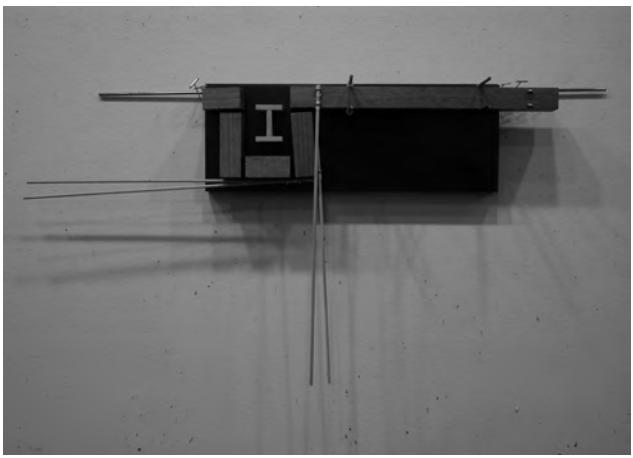
Bimetal Fanfold



Bimetal Coil and Flame



Mesh Samples - Cold and Hot



Modified Expansion Joint

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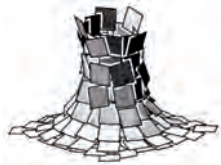
corner extensions

933



panel geyser

934

excavated cantilever

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slab trail

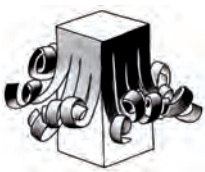
936

grid bulge

937

fillet tower

938



panel locks

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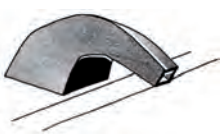
whirling pillars

940

continuous facade

941



bridge tower

942

marble block

943

street settling

944

joint corner

945

column heap

946

histogram circle

947

grid sleeve

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vertical skyline

949

introverted frame

950

thick portholes

951

peeled cone

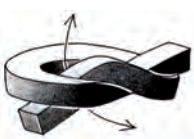
952

alternate facades

953

pixel pitch

954



locked circle

955

hatched tower