02 Poiesis, Mimesis and Memes

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ABSTRACT: This article discusses the philosophical and theoretical bases of architecture using the concepts of poiesis (creation), mimesis (imitation), and memes (cultural transmission). It explores how architectural practice has grown from a mere shelter-building exercise to an expressive, poetic form of human creativity. The discussion extends into biomimicry, the digital evolution of design, and the impact of artificial intelligence on architectural processes. It raises critical questions of whether architecture should imitate nature, evolve through self-generating systems, or respond to cultural shifts. Ultimately, it argues for a balance between artistic intent, adaptive methodologies, and emerging digital paradigms to create meaningful, responsive spaces.

Prologue

Source : Author

It will take, they say, 18 years just to clear the rubble of Gaza. As far as the eye can see, there's nothing but concrete, steel, and dust.
I look at the footage and wonder how we got here. Not the horrific death and destruction, which is too much to bear, but at the hubris of humankind. We appear to have gone from homo sapiens to homo concretus.

Buildings are currently responsible for 39% of global carbon emissions, 11% of that coming from materials and construction. By 2030, we've committed to reduce embodied carbon by 40%, and running energy demand to net-zero performance.[1]

The use of carbon content as an index of where we are is neither arbitrary nor abstract. We are ourselves a carbon-based life form, living in a carbon-based ecosystem. We literally owe our lives to carbon.The balancing of the carbon cycle is a necessary, if insufficient condition for us to continue existing as a species.

Poiesis

Source : ArtsDot.com

The urge to build, to create architecture, is deeply embedded in us. It spans much of human nature, from the need to shelter our furless bodies to the need to be remembered and honored forever. We sometimes use the building/architecture dichotomy to distinguish between these different urges.[2] I find this to not be a useful device. Birds build nests, beavers, dams and so on. Can we consider them to be uncreative? Is poiesis, or poetry, a uniquely human characteristic?

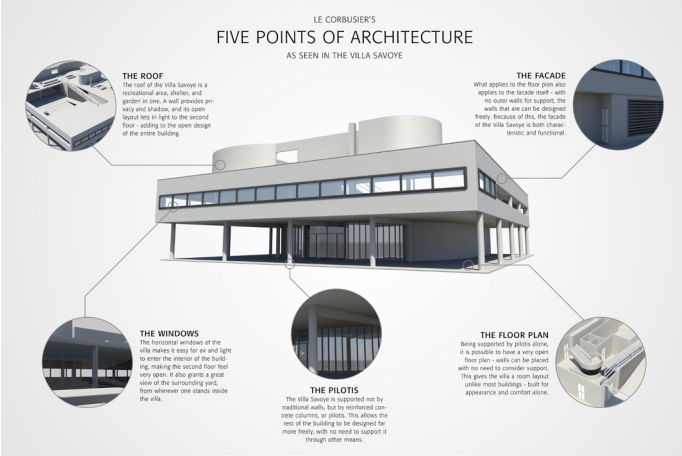
Source : Beijing Bird Nest, Wikipedia

Source : Wikipedia

It would appear that any artistic impulse, if it is to be realized (built) and relatable (understood) needs to have a reference, or touchpoint, outside of its own existence as an idea. Architecture, as a social and public art, has a responsibility to be expressed in shared poetics. While Vitruvius postulated the Urhütte, or primitive hut as the basis of all architecture, Gottfried Semper suggested that it was the space occupied by men gathered around a fire to be the archetype.

Traditionally, architectural poiesis has been based on typological inspiration, and was changed dramatically by the industrial revolution, new materials and structural possibilities, and new functional needs.

Mimesis



Source :Profile Bauhaus movemet, Behance

It is extremely rare that an architectural design situation is so completely defined by a set of requirements or parameters, that there's an obvious 'solution' that everyone 'gets'.

While a competent architect would certainly address the practical considerations, she would still probably have a multitude of approaches, leading to different designs. This requires the overlay or insertion of a larger idea or concept that will both guide the architect during the design process, and help communicate the design intent to the larger public on completion.

Source : worldarchitecture.org

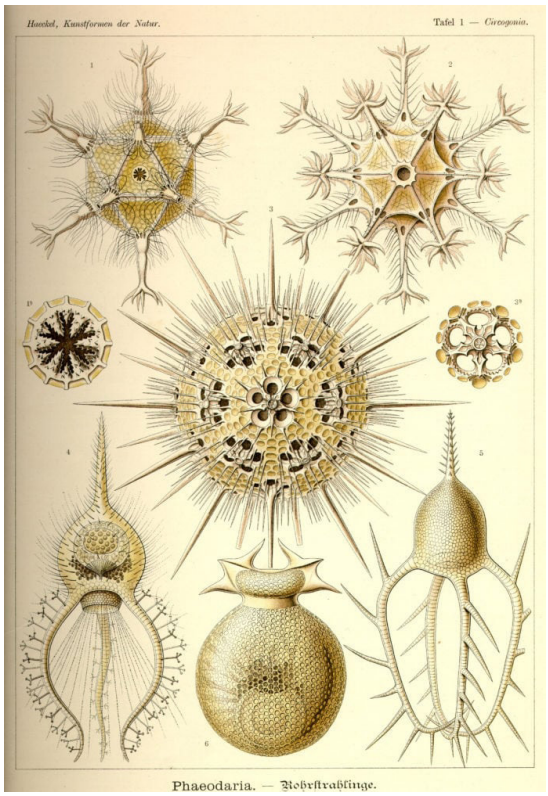
Biomimicry and biophilia are everyday words in architectural discourse now, but the idea of being inspired by nature is not new. D'Arcy Thompson's [3] and Christopher Alexander's [4] books were popular in architecture schools by the 80s.

Frei Otto described the 'self-designed structures' of soap bubbles and sand dunes as the lowest-energy and materially economical states of nature.

Ernst Haeckel's incredible drawings have inspired many.

Source : calatrava.com

Much of taxonomy and typology was concerned with the encyclopedic mapping of natural forms (but rarely spaces!). This became a necessary database to investigate patterns, underlying structural principles, and the evolution of adaptation and complexity.



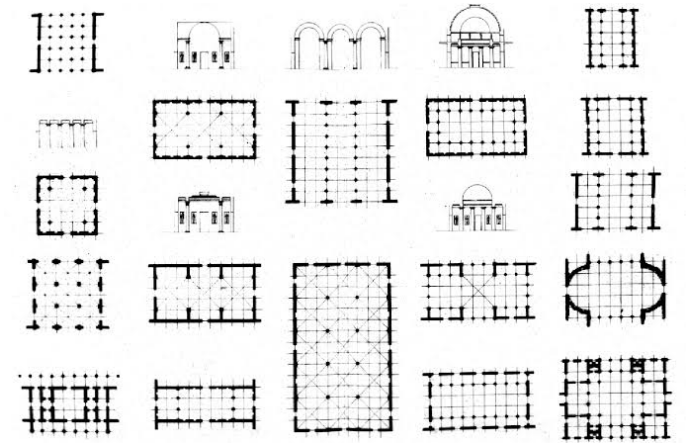
Source : GetArchive

This fascinating journey from what to how to why has great lessons for architects, including:

- Similar situations can manifest in varied responses
- Random mutations can be surprisingly successful
- Specificity can be a weakness of design
- Design must adapt to changing conditions
- Camouflage and flamboyance both work
- Habitats determine morphology

Source : Butterfly Chart, Judy Coates Perez

As an architect searching for a starting point, what determines one's choice of inspiration?
A structural principle?
An adaptive approach?
A climatic response?
An evolutionary path?
A materiality, a texture, a color palette?
A beautiful expression of form/space?



Source : semanticscholar.org

As Juhani Pallasmaa [5] bemoans, we have become globally a visual culture, privileging the sense of vision over all others. What we see is what we love. Or hate.

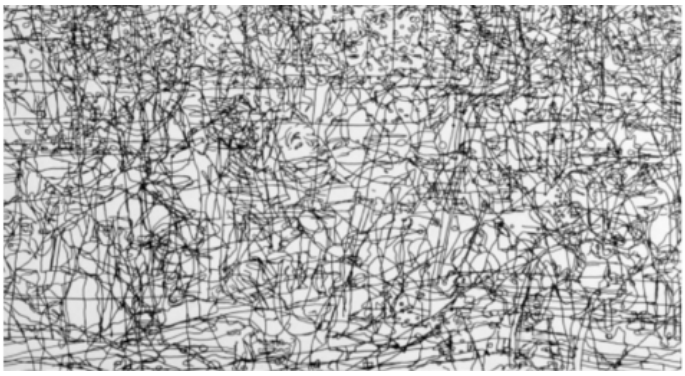
We're seduced by the perfect spiral of a nautilus' shell, the myriad symmetries of a snowflake, the rosettes on a panther, the fractal patterns of ferns. While they add enormously to an architect's design vocabulary, and free us from the tyranny of the right angle [6], is miming this the best we can do?

Source : https://images.app.goo.gl/cycHhmkBdCQB865A7

Source : Laundry Room Portico at Parc Guell, nobedtimesnoborders.com

Source : 3D printed house,Italy, re-thinkingthefuture.com

Or can we parse the relationship between form/space and formative forces?
Vocabulary and syntax are an easy, if reductive way to understand and communicate this relationship. Perhaps we need to think in terms of networks and not objects, situations and not locations, performance and not tectonics, form/space as consequence, not a priori creation.



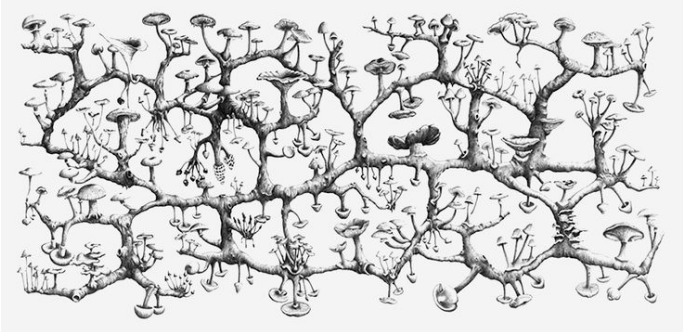
Source : Author

It may be interesting to see this from an AI point of view. Most large architectural practices today use AI design development to speed up their work. Typically, this is done by 'training' the software on the database of their own previous non-AI designs.

New parameters are chosen, and the computers churn out potential designs, which are then culled, modified by real human architects and sent into further iterations, until a satisfactory result is obtained. We could describe this as evolutionary mimesis.
The evolution of the software implies two things:
A movement from poiesis to autopoiesis
A movement from authenticity to mimesis,[7]

We have moved from "creating form" to "finding form" to "breeding form". Digital evolution is closely mirroring biological evolution. Software dreaming is a thing.

Multiplicity, fluidity and non-hierarchical structures, as put forward by Deleuze & Guattari,[8] have the capacity to upturn all of architectural theory all the way up to postmodernism. These, interpreted through the lenses of topological space, temporality, and instability, effectively become 'creative' in and by themselves. The algorithms will generate possibilities that a human couldn't dream of. We still get to choose what gets built, though. So far.



Source : The design of unfinished-Pinterest

Neri Oxman's Eden project is a cutting-edge example of these possibilities[9]. It claims to use data-centered algorithmic generative AI to resolve the typically adversarial relationship between architecture and ecology.

Source : Iryan Prauko

Exciting as all of this is, it's eating up the planet. Data centers already consume 1-2% of all global power. The mining of minerals and rare earth metals is ravaging people and ecologies. We continue to kick the can of sustainability down the road.

The Baubotanik movement holds that it's insufficient to mimic nature, and that we need to 'grow' architecture, rather than build it. This is a fascinating, if niche approach, but is not quick or scalable. The root bridges of Meghalaya are a great example.

Source :Living Baubotanik tree Tower, inhabitat.com

Source :living root bridge, Khasi, Meghalaya-Wikipedia

Memes

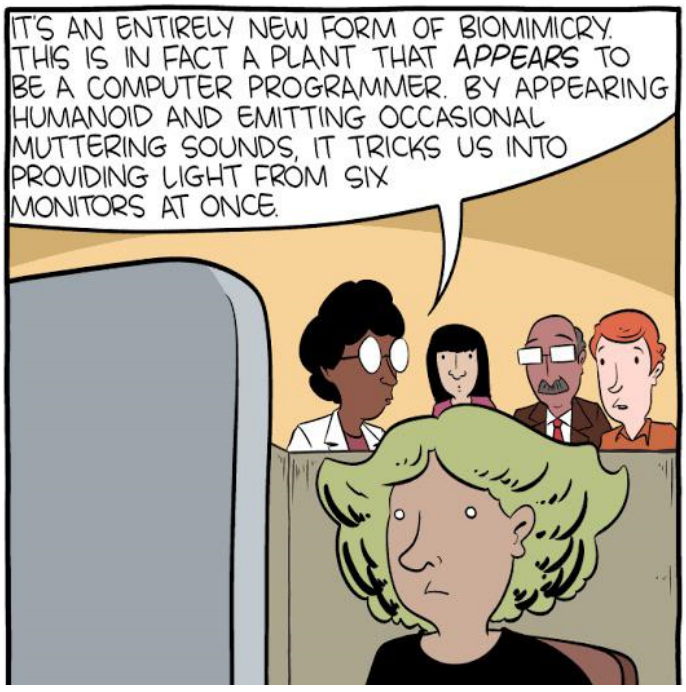
When ideas go mainstream, the surest sign of arrival is their memification. Simultaneous validation and critique, memes are a late-stage evolutionary product of society. They have been through processes of propagation, mutation, natural selection, and transmission, analogous to a biological virus.

Source : Americasbestpics.com

Source : Reddit.com

Source : Is It Green?, inhabitat.com

Source : Author



Source : Reddit.com

Maybe the real function of a meme is to stop us from taking ourselves too seriously.
"*Intelligence and a sense of humor will get you through life*".

Ar. Dinesh Rao

Dinesh Rao is a practicing architect with over 35 years of experience.
He is the principal architect at Monsoon Design, a design firm based in Bengaluru. He studied at the Faculty of Architecture, Centre for Environmental Planning & Technology(CEPT), Ahmedabad, and at the Eidgenossische Technische Hochschule (ETH), Zurich.He has previously worked at Architects' Combine (Mumbai & Bengaluru) and Archipart (Zurich).

He has mentored architectural design students and taught theory at BIT Bengaluru, MCE Hassan, and RVCA Bengaluru for over 30 years.
He continues to be a visiting critic at the major architecture schools in Bengaluru.He has been on the Board of Studies of the SIT School of Architecture, Tumakuru, and contributed to the syllabi & pedagogy of th for theatre, furniture, graphics, naming & visual identity, and professional architectural photography.

1. https://worldgbc.org/advancing-net-zero/embodied-carbon/
2. "Building becomes architecture only when the mind of man consciously takes it and tries with all his resources to make it beautiful, to put concordance, sympathy with nature, and all that into it. Then you have architecture."
Frank Lloyd Wright, 1867-1959
3. Thompson, D'Arcy Wentworth (1917) On Growth and Form. Cambridge University Press https://www.gutenberg.org/files/55264/55264-h/55264-h.htm
4. Alexander, Christopher et al. (1977) A Pattern Language Oxford University Press
https://www.patternlanguage.com
5. Pallasmaa, J. (1996) The Eyes of the Skin. John Wiley & Sons
6. Zaha Hadid: "There are 360, why stick to one?"
7. Katodrytis , G. Poiesis and auto-poesis in Architecture https://papers.cumincad.org/data/works/att/acadia05_048.content.pdf
8. Deleuze, G. & Guattari, F. (1980) A thousand plateaus. Les Editions de Minuit
9. https://oxman.com/projects/eden