

Greg Lynn: Beyond the Blob

Reception Date: June 04th 2014Acceptance Date: June 17th 2014KEYWORDS *digital | archaeology | typology | style | form*

Greg Lynn: Beyond the Blob

Interview by Alejandra Celedón

Realized through Skype on Monday the 2nd of June 2014.

In the late 80s, Bernard Tschumi – Dean at Columbia – invited four studio masters to run what he called “The Paperless Studio”. They had to be computer-literate instructors. One of the guests was Greg Lynn, interviewed here. Since then, discussing architectural form seems ineludibly linked to the real impact of digital technologies on the material possibilities of buildings.

Framed as one of 100 most “innovative” people by *Times Magazine*, one of 10 most “influential” architects by *Forbes Magazine* and winner of the Golden Lion at the 11th International Venice Biennale of Architecture, Lynn has focused his practice and thinking on “form”. It is not chance, thus, that the figure here under interrogation called his own office “FORM” in 1992 as a way to “vindicate architectural form,” a claim yet to be seen.

ARCHAEOLOGY OF THE DIGITAL – EXHIBITION AT THE CCA

In the first phase of the exhibition “Archaeology of the Digital” you have been curating at the CCA in Montreal (Centre of Canadian Architecture), you locate four key projects of the 1980s as inaugural of the digital era. However, there are earlier examples based on similar modes of thinking (despite the lack of the tools themselves) which suggest a longer genealogy of the digital to be traced back as early as the diagrammatic work of Durand. How these early developments might fit within your own archaeology?

The shows at the CCA have followed a trend of exhibitions based on historical arguments and genealogies, but the current and the ones to come have a rather archival. For the “Archaeology of the Digital”, the CCA and I came to an agreement where the shows are not meant to be too interpretative, and the way we have been curating them is against that. For the first show we especially picked four different approaches to make sure we were not presenting a single moment when something emerged, but four independent instances. We did not want to make an argument about origins or firsts digital forms.

I am aware that there are many examples of digital technologies used by architects before the 80’s, but we tried to pick projects which were canonical in some way based on the influences of the digital tools in design processes.

Despite that figures such as Durand would be incredibly interesting to look at within a larger genealogy, the CCA shows particularly where trying to capture material which was disappearing. This is the case of the *Lewis Residence* by Frank Gehry (1985–1995) in which the digital files behind the forms existed, the case of *Chuck Hoberman’s Expanding Sphere* (1992) in which all the work were print outs - no data existed - so we had to re-enter, literally retype, programming codes behind the forms. In the case of *Shoei Yoh’s* roof structures for Odawara (1991) all the digital files were lost but the engineers still had them and we manage to save that set, and finally for Peter Eisenman’s unrealized *Biozentrum* (1987) all the digital material was definitely gone.

The objective was to build an archive: to get that content archived so that future historians and scholars could look at that material. There is a generation of historians now, such as *Mario Carpo*, who understand digital tools what is quiet unique since they were trained in earlier architectural methods, such as perspective, plan and section. Most historians understand these conventional techniques, but the digital ones become more metaphorical for them. What is really interesting about the exhibition at the CCA is that scholars can now have access to that digital material and do research in these projects which has not been done yet.

I know that many historians are upset by the exhibition, people like

★ Jean-Nicolas-Louis Durand (1760-1834) was a French author, teacher and architect. Professor of Architecture at the École Polytechnique, he systematized the teaching of the discipline and the process of design itself under the notion of “composition”. The main publication that summarizes such effort is the *Précis des leçons d’architecture données à l’École royale polytechnique* (Chez l’auteur, 1809).

★ *Lewis Residence*: Designed in a 9 acres forest, this project developed by Gehry for nearly ten years was never built. The project was conceived as a collaboration with artists like Larry Bell, Richard Serra, Frank Stella and also the landscape architect Maggie Keswick Jencks and architect Philip Johnson (Source: www.guggenheim.org).

★ Chuck Hoberman (1956) is an American artist, engineer, architect and inventor of folding structures, most notably the Hoberman sphere, an isokinetic structure that resembles a geodesic dome that is capable of folding down to a fraction of its normal size. Colorful plastic versions have become popular as children’s toys (Source: Wikipedia).

★ Shoei Yoh Hamura (1940) is a Japanese architect who did not studied Architecture but Economics and Applied Arts. He is currently Professor of Architecture and Urban Design at Keio University in Tokyo (Source: www.architectenweb.nl).

★ *Biozentrum* is an unbuilt project for the Biology Center in the J. W. Goethe University, Frankfurt am Main, Germany.

★ Mario Carpo (1958) is an Italian architectural historian and Professor of Architectural History and Theory at University College, London, and Professor of Architectural History at Yale University. His publications include *The Alphabet and the Algorithm* (MIT Press, 2011) and *Architecture in the Age of Printing* (MIT Press, 2001); (Source: Wikipedia).



Jean-Louis Cohen (1949) is a French architect and architectural historian. He is Professor in the History of Architecture at New York University Institute of Fine Arts. His most recent book is *Le Corbusier: an Atlas of Modern Landscapes* (Moma, 2013); (Source: Wikipedia).



Antoine Picon (1957) is Professor of the History of Architecture and Technology and Co-Director of Doctoral Programs at the Harvard Graduate School of Design. One of his best known books is *Architectes et ingénieurs au siècle des lumières* (Parenthèses, 1988); (Source: Wikipedia).



Anthony Vidler (1941) is a British architect, historian, critic and curator. He is Dean and Professor at The Irwin S. Chanin School of Architecture, The Cooper Union for the Advancement of Science and Art, New York. His most well known books are *Histories of the Immediate Present* (MIT Press, 2008) and *Scenes of the Street and Other Essays* (Monacelli Press, 2011).



Alan Colquhoun (1921-2012) was a British architect, historian, critic and teacher. He taught at the Architectural Association and Princeton University. He is author of *Modern Architecture* (Oxford History of Art, 2002); (Source: Wikipedia).



Michael Graves (1934) is an American architect. He is a representative of New Urbanism and New Classical Architecture and formerly designed postmodern buildings (Source: Wikipedia).



Hanselmann House, located in Fort Wayne, Indiana, is Graves's first architectural commission (1967-1971); (Source: www.michaelgraves.com).



New York Five refers to a group of five New York City architects: Peter Eisenman, Michael Graves, Charles Gwathmey, John Hejduk and Richard Meier (Source: Wikipedia).

Jean-Louis Cohen or Antoine Picon, and I feel that is a good thing. I could recognize a longer history of digital modes of approaching architectural form as you suggest, but that is an enterprise which has been attempted already many times, and I would say prematurely. There is going to be a lot of genealogies that will emerge when people access these original digital files that will have another validation and status in comparison with the one that have already been written.

VINDICATION OF FORM

When you opened your office "FORM" in 1992, you wanted both to challenge and to exonerate architectural form. Within that framework, can form be liberated from its historical responsibility (either social utopia or associated to political programmes), or on the contrary, do you see any sort of power or potential inherent in form itself to affect?

My position in that moment was really about the architectural moment which was dominated by La Villette— the canonical project which stands for a polemical battle between Bernard Tschumi and Rem Koolhaas. A lot of people of my generation were very subscribed to this idea that through programmatic analysis form would precipitate. So if you did enough analysis and you layered enough diagrams together, eventually out of these diagrams would come some form or product by accident. I really believe in that at the time, questions of geometry and media would be the most important questions, and there was a lot of work to be done on form and geometry, that is really why I premiated that term.

ARCHITECTURAL FORM AND THE CITY

You have called for architectural forms able to respond to the intensity, density, and fluxes of urban fields vindicating the smoothness, continuity and roundness of architectural forms as a dynamic mode of relationship with the city. What is the potential of forms allowed by digital software regarding city demands?

There would be two answers to this. One is that even while I was a student, the reason why I went to graduate school at Princeton was because people like Tony Vidler and Alan Colquhoun were there, so on the one hand it was a school that had a strong theory and history programme, which other schools frankly did not have. The other reason is I wanted to learn how to draw composite curves under Michael Graves. He had done the *Hanselmann House* (1967-1971) and from of the *New York Five* he was the most sophisticated in terms of compound radio curves. I have always been interested in curvatures rather than grids. When I discovered computer software, splines and compound curves, I also found out that often these were related to simulated physics and animation. When I first got a silicone graphics machine and software for it, the very first thing I started doing was studying simulated physics and modelling urban

projects using conditions like dynamic forces, deforming surfaces where the curves deformation where indexing all these urban forces. After spending a year or two doing that I started going back to more conventional modelling but always with an interest in using forces, fluid dynamics and this sort of tools to inform that modelling, and I am still interested in that today.

Currently there is a renewed interest for the most basic and conventional tools of the discipline, such as the wall, the plan, including the straight line. What is the real potential of these particular forms – based on compound curves that index city forces – to change undesirable dynamics of the city, in contrast to the Cartesian grid? As you explain this, it seems that such curve modelling is a result or reproduction of what is found in the city, as opposed to sharp transformation or the production of change.

Because of my work at the CCA I had to spend more time that I would probably liked reflecting on the last couple of decades. I remember vividly in the nineties saying that what I was doing should not be understood as the new standard. Journalists used to ask me “how this is going to affect the average person house?”, and answered I was not interested in the average person, but rather in the extreme or exotic person. I thought that what I was doing would not be mainstream. I remember **Léon Krier** saying to me “I really like what you do, I think every city should have one”, which for me was a sort of compliment. But what it is really amazing to me is how fast and easy it has become the mainstream indeed. Pretty quick figures such Peter Pran, HOK, Foster, Zaha, and a large number of offices adopted these forms much faster than what anyone ever predicted. It is not a surprise that people like **Pier Vittorio Aureli** are having a sort of flashback; however I find it a little bit nostalgic. You cannot really rewind history and return to the past. New arguments have to come up rather than returning to old ones, especially when it comes to the city.

FORM AND SOFTWARE

Regarding the smoothness and continuous surfaces characteristic of your work, how far is a formal aesthetic you pursue across different projects and contexts, or a result of the software you employ based on differential calculus?

I would say that is the result of personal research, but I would not either underestimate how much the software is tailored to the desires of the architect using it. When I think back to the number of times that people from Rhino, Microstation, Autocad come through my office and spend days here, used to consult for us for free on projects, they would look how we were misusing certain tools to get what we wanted, and that is how we became Grasshopper and all kind of specific tools in the software that were really designed for a handful of architects that were interested in them. There was a time that we were using tools that were not custom-designed for us, but in the 90s and 00s I would say if there was ever

★ **Léon Krier** (1946) is a Luxemburg born architect, theorist and urban planner. He is a representative of New Urbanism and New Classical Architecture. He is the author of *The Architecture of Community* (Island Press, 2009); (Source: Wikipedia).

★ **Pier Vittorio Aureli** (1973) is an architect, theorist and Italian professor. In 2006 he received the international prize for young architects Lakov Chernikov (with Martino Tattara). His theoretical work focuses on the relationship between architecture, political theory and urban history. He is the author of *The Project of Autonomy: Politics and Architecture within and against Capitalism* (Princeton Architectural Press, 2008) and *The possibility of an Absolute Architecture* (MIT Press, 2011); (Source: www.circulobellasartes.com).

★ Lars Spuybroek (1959) is a Dutch architect and artist. He is the sole principal of NOX, an office that creates buildings and artworks (Source: Wikipedia).

something that we wanted, it was pretty easy to get the software companies to build it for us. They were actually asking us what they could build for us more than we were able to give them ideas of what we wanted. In this sense, it is a two-way process of needs and possibilities. Norman Foster, Lars Spuybroek (Water Pavilion, Interactive Media Project), my self, are examples of architects whose projects generated a variety of new digital tools which today are just taken for granted as everyday possibilities.

TYPOLOGICAL

Underlying your practice there is a scalar rhetoric that travels “from teaspoons, to houses and cities”. Would you locate your work as typological in terms of ensuring certain values through the variation of an original theme?

Yes, and I will take that as a compliment.

NON-STANDARD

Your work has also been framed within a shift from mechanic to algorithmic reproduction. This change has allowed the emergence of what has been called “non-standard” series, part of a genealogy which drifts from the idea of the “typical” to the “standard” and eventually to the “non-standard”. Is it truly a radical transformation the one allowed by digital tools, or do you see it more as an extension of the same disciplinary tradition of working through types and series?

What is most important in your question is not the change or the continuity, but perhaps the relevance of the precedent and the canon – in the sense of being aware of history. When I started writing about and using digital technologies I always did it in dialogue with the work of Rudolph Wittkower, Palladio, Le Corbusier or Colin Rowe. These, type and canon, were always really important to me. *Embryological House*, for instance, is a way of thinking in dialogue with Wittkower and Rowe. I would say that I always start with the typological argument being what helps connecting ideology and function to form. The notion of type became rethought with digital tools, but it does not have to be, digital tools have been used a lot also just as a tool for expressionism, and do not get used in general for type. The “Architectures Non-standard” show at the Pompidou (2003-2004) was a very important moment, and very shortly after a series of terms were mistakenly thrown around, especially in the *AD Magazine*. If you follow the titles of the *AD* issues, probably one of the worst was one called “Versatility” (2008), which quickly went and reduced the discussion from the “non-standard” to “variety”. Digital tools can be used for searching “elegance⁽¹⁾”, variety (for the sake of variety) and as expressionism, but that is not my interest on them.

(1) *AD Magazine*, 2007.

★ Rudolf Wittkower (1901-1971) was a German-American art historian specializing in Italian Renaissance and Baroque art and architecture. He was chairman of the Department of Art History and Archaeology at Columbia University. He is the author of *Architectural Principles in the Age of Humanism* (Warburg Institute, 1949). (Source: Wikipedia).

★ Colin Rowe (1920-1999) was a British (American-naturalised) architectural historian, critic, theoretician, and teacher. He is a major intellectual influence in the fields of city planning, regeneration, and urban design. He is co-author of *Collage City* (with Fred Koetter, MIT Press, 1978). (Source: Wikipedia).

★ *Embryological House* (1997-2002), is a born-digital project from Lynn. It was developed with geometrical modeling and character animation software (MicroStation and Maya), as well as digitally-generated physical mock-ups. (Source: www.docam.ca).

★ “Architectures Non-standard” was an exhibition held at Centre Pompidou (2003-2004). It showed completed or experimental projects and prototypes by a dozen international architects, such as Spuybroek, Oosterhuis, van Berkel & Bos and Lynn, among others (Source: www.designboom.com).

LEGACIES

In which ways your work answers, reacts, enhances, or supersedes the ideas of Bernard Tschumi?

I just saw Bernard at a symposium at Yale called "Digital Post-Modernities: From Calculus to Computation" where he stole the show. I think there were two things that were great about his talk. One is that he came to the show and immediately understood the argument behind it: there were architectural tendencies in place that made the digital relevant in that moment. You can go back to the 40s and 50s and see digital tools that could have been picked up by architects, and digital tools that were taught about as being relevant to architects but never had a huge impact on projects. In the 80s, all of a sudden, these projects became very radically influenced by the digital, the reason probably being that there was an appetite for those tools at the conceptual level. Bernard exposed that by showing Columbia University students work before and after the computer lab, and you could not tell the difference, they were almost identical. I agree with his argument that it was not such a radical shift but it was an incremental shift.

The second aspect was to see "The Manhattan Transcripts" again and appreciate what Bernard and Rem were both doing with the use of film and script to influence their design process, and I think that precedent was very important to many of us in Columbia at the time. What we really did was building on and replicating what he was doing with film, in very different ways, but it is absolutely part of his legacy. But the focus on event and the smuggling of a formal argument on the back of the scripting and programming event, was something I reacted to in a confrontational way rather than adopting. I went to Princeton thinking that I was going to study with a group of people which were inventing a new language, but the time I got there, everybody was immersed in history, it was the time of the apex of historical postmodernism. Even though Bernard and Rem were seen as being radical because they were using constructivism, for me it was more postmodernism only using different references. I had a strong reaction to that then, and I still do.

TEACHING FORM

In the academic context, how your teaching of form has changed in the last 30 years from the "Paperless Studios" in the 80s to the latest "SupraStudio" and the involvement of drones and robotic motion.

It is funny how things go absolutely against yourself. When I started using animation software I always got this challenge or assumption which was, that given the way I was using it, then the limit I should be going for is doing animated buildings, and I had this very clever response to this – I thought – which was if you design things that move, like cars and boats, do not actually have form change but multiple orientations and they design fix things for multiple positions and multiple speeds. I used the analogy of a boat that needs to sail with the wind or



"The Manhattan Transcripts" are a group of architectural drawings, plans, sections, and diagrams developed by Tschumi between 1976 and 1981. They proposed to transcribe an architectural interpretation of reality. To this aim, they employed a particular structure involving photographs that either direct or "witness" events (some would call them "functions," others "programs"); (Source: www.tschumi.com).

against the wind but it does not change its shape, it just have different features on its surfaces that accommodates the different orientations. From there to robotics, the difference is that I use the second only for making things, not to conceive them. After my experiences in the ETH (*Eidgenössische Technische Hochschule Zürich*) and UCLA (University of California, Los Angeles), these two places became totally dedicated to fabrication, and it is time to return back to the question of robotics not only from such material point of view.

MEANS OR END

Is FORM a means or an end? Is it for you a device for thought, or a thing or substance?

Means.


THE SITE OF FORM

Where relies the essence of the form of a building, Plan or Section? Axonometric or Perspective?

I have always believed that architecture is in the section, but on the bottom of the screen in my desktop there is always a perspective window at the bottom. I used to be a world class perspective instructor, if you ask Peter Eisenman or people I worked for, the reason I got a job was because I could draw a perspective better than anyone. Perspective communicates space very well, and I do a lot of modelling perspectively than I do on plan or section.

STYLE

Originally the term "stilus" referred not only to intentions or the artist common signature, but also to the tools to accomplish them. If we consider the term in the original sense, "style" would not refer to the signature of the designer but the inevitable trace left by the software (the tools). Would you consider the forms allowed by digital tools as the new style of architecture?

I really respect **Patrik Schumacher**, given the place Patrik and Zaha have placed their office; the fact that Patrik takes the time and focus to produce those two volumes of theory is extremely impressive, and everybody should be celebrating that. But, one of the things that I am suspicious about is whether Patrik needs to make the argument that this is some sort of international style. In a certain way, I would rather have Patrik spent theoretically in a different space than trying to make a claim for a new global style. I am very interested in ideas and in the influences of ideas but I have never been interested in style as such. I would like to think – and I might be wrong – that you would recognize something than I would do because you recognize the ideas behind it, the ideas that drove it, rather than a shape or style. 

★ Patrik Schumacher is a German Architect that studied philosophy, mathematics and architecture. He is Zaha Hadid Architects partner, director and Senior Designer. He is co-director of the Design Research Laboratory at the Architectural Association and author of *The Autopoiesis of Architecture* (2 vols., John Wiley & Sons, 2010-2012); (Source www.zaha-hadid.com).

"I am very interested in ideas and in the influences of ideas but I have never been interested in style as such. I would like to think – and I might be wrong – that you would recognize something than I would do because you recognize the ideas behind it, the ideas that drove it, rather than a shape or style."