**Mei JIN -- Blobitecture - Blob Architecture**

**Thesis paper 02-present**

**Abstract**

Blobitecture, also referred to as "blob architecture" or "blobism", refers to modern structures with an amorphous, blob-like shape. "Blobitecture" is an expression actually coined by New York Occasions Magazine author William Safire, who utilised it to sardonically describe the sudden increase of amoeba-like buildings. Contrary to his intention, architects fortunately adopted "blobitecture" to illustrate a new and interesting architectural movement.

**Past**

Blobitecture arose in the course of the nineteen nineties when CAD methods have been first being designed for architects and interior designers. Soon a range of architects and furniture designers began to experiment with this "blobby" software to create new and unusual forms. Despite its seeming organicism, blob architecture is unthinkable without this and other similar computer-aided design programs. Architects derive the forms by manipulating the algorithms of the computer-modeling platform. Some other computer aided design functions involved in developing this are the nonuniform rational B-spline or NURB, freeform surfaces, and the digitizing of sculpted forms by means akin to computed tomography.

One precedent is Archigram, a group of English architects working in the 1960s, to which Peter Cook belonged. They were interested in inflatable architecture as well as in the shapes that could be generated from plastic. Ron Herron, also a member of Archigram, created blob-like architecture in his projects from the 1960s, such as Walking Cities and Instant City, as did Michael Webb with Sin Centre. Buckminster Fuller's work with geodesic domes provided both stylistic and structural precedents. Geodesic domes form the building blocks for works including The Eden Project. Niemeyer's Edificio Copan built in 1957 undulates nonsymetrically invoking the irregular non-linearity often seen in blobitecture. There was a climate of experimental architecture with an air of psychedelia in the 1970s that these were a part of. Frederick Kiesler's unbuilt, Endless House is another instance of early blob-like architecture, although it is symmetrical in plan and designed before computers; his design for the Shrine of the Book (construction begun, 1965) which has the characteristic droplet form of fluid also anticipates forms that interest architects today.

Also to be considered, if one views blob architecture from the question of form
rather than technology, are the organic designs of Antoni Gaudi in Barcelona and of the Expressionists like Bruno Taut and Hermann Finsterlin.

**Present**

Blobitecture is a dynamic kind of architecture nevertheless extensively in use today. Blobitecture is not like any other architectural type since it entirely originates from pc-aided layout (CAD). In software package architect jobs, architects use CAD to manipulate buildings’ outlines to almost any form. Whilst they do this, the software program automatically calculates mathematical equations that instill structural soundness into the style. Before CAD’s growth, architects adhered to mainstream geographical shapes given that they were self-assured of these shapes’ structural stability. Now, thanks to CAD software program, a building’s shape has boundless possibilities.

In 1992, Zappl research project pioneers glass as a structural element. In 1993, the 1st blobitecture creating was erected: the Drinking water Pavilion in the Netherlands, which was totally developed in CAD.

First coined in 1995, the term Blobs, or blobitecture, is used to refer to amoeboid, fluid designs that are created using digital modeling software. By manipulating the algorithms of the modeling program, architects are able to create new, previously unthinkable shapes and forms and streamline the design-to-production process. The innovations in technology such as computer programs, industrial adhesives, and connectors can produce infinite free-form and sculptural designs that can be made by spraying mortar over malleable reinforcing mesh. Corners and angular beams give way to curvaceous shapes that draw their inspiration from nature. Blobs are sculptural, protoplasmic structures that completely redefine the language and possibilities of architectural design.

Other large-scale tasks adopted in rapid succession, the most well-identified of which is probably the Guggenheim Museum Bilbao. This museum, positioned in Bilbao, Spain, was developed by distinguished Canadian-American architect Frank Gehry. Opened to the public in 1997, it consists of a variety of concave and convex curves. Because it is situated on a port, it glass and titanium curves replicate the mild from the two the sky and h2o. Additionally, its curved
silhouette resembles that of a ship. This contemporary-artwork museum firmly contributes to making Bilbao a Spanish vacationer attraction. In 2001, Karel Vollers publishes Twist & Build.

**Foreign Office Architects Ltd.: Yokohama Port Terminal, 2002, Yokohama**
In 2002, Development of Liquid Designed Buildings and complex 3-D design programs. A dynamic wavelike structure, the Yokohama Port Terminal creates a branch between urban and aquatic space. The design challenges previous linear structures by using looped and continuous throughways, sculptural forms, and a reduced color palate that encourages fluidity and movement while maintaining multifunctional and differentiated spaces.

![Yokohama Port Terminal](image)

**NIO Architecten: Bus Station at Spaarne Hospital, 2003, Hoofddorp, the Netherlands**
The bus station at Spaarne Hospital is a long, fluid, and graceful design that makes innovative use of negative space. Composed of factory-cut polystyrene foam with a polyester skin, the design forms a sculptural roundabout that allows a free flow of activity.

![Bus Station at Spaarne Hospital](image)

The United States has its own 'blobitecture' buildings. Seattle has the Experience Music Project museum, another Gehry-designed building, opened in 2000. Like the Guggenheim Museum Bilbao, this museum consists of seemingly random curves made up of sheet-metal. The building’s undulations give it a fluid silhouette, perhaps as a tribute to the museum's musical exhibits. While the
Guggenheim museum's shape reflects its port vicinity, the Project's shape can be summarized as "form follows function. "In fact, Gehry directly attributed the building's shape to that of a smashed Stratocaster electric guitar, made famous by Jimi Hendrix. Unlike the Guggenheim, the Experience Music Project also incorporates more colors into its exterior design, though its metal reflects as much light as the Guggenheim.

Future

What will the architecture of the future look like? Well, technological advances will inevitably affect the way architecture looks, but technological progress does not have a direct relationship with societal progress, and it's societal change which most deeply impacts architectural form. There will be an eventual shift away from relentless steel and glass (basically Victorian technology) towards new materials. But the way things are made will be the biggest technological change. The first 3D printed house is being designed by the Dutch Universe Architects; they say it will be ready in 18 months. This will be the first of many, meaning a shorter distance between ideas and eventual physical building. Which in some ways will be good, but it will lead to a tendency to emphasise shape, rather than object or function. Better technology does not equal better architecture.

The medium of design always influences the final product, from pen and ink, through photography to film and 3D animation. So one way of guessing what the future of architecture looks like is looking at the tools architects are starting to design with. 3D scanners, 3D printers, laser-cutters, 3D computer screens... When I worked the night shift at the laser-cutters (a place that fabricates architectural components from computer files), I suppose I had a Ballardian glimpse of the custom computer fabricated future of architecture. But these machines were only ever as promising as the architect behind it.

Conclusion

Nowadays, most architects implement blob architecture for glass-and-metal constructions. Seldom is it used for personal household homes, simply because the glass and metal supplies tends to make "blob buildings" fairly clear. Instead, it is considerably more often utilised for tourist sights, such as museums, theatres, and live performance halls. It is also more and more utilized for scientific buildings, this sort of as geodesic domes utilized for weather conditions observatories and greenhouses. Finally, a increased variety of professional buildings are blob structures, this kind of as London’s Metropolis Corridor and the Future Systems architectural firm.

Reference


4. http://www.architecturetoday.co.uk/?p=28687