PROJECTED SPACE: CHARACTERIZING THE "CYBRID ARCHITECTURE".
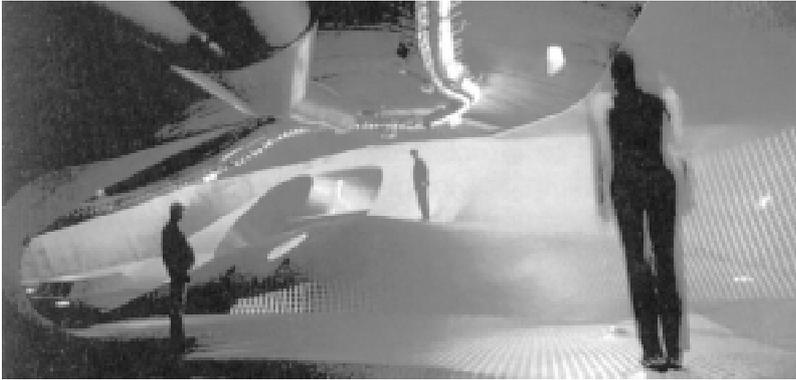
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Figura Sintesis:
Fresh Water Pavilion, Nox Architects.

Abstract
The "cybrid architecture" has been defined like integration of physical and digital spaces. Based on the capability of electronic media to generate virtual environments (cyberspaces) which could be related to buildings. However, theoretical studies and contemporary works reveal a more complex relationship between media and constructions. Expressed in architectural characteristics that constitutes a new spatial quality, named here projected space. Hence the paper argues that "cybrid architecture" is not technological, but is a modification of conventional architectural space due to cultural evolution.

Development

The concept of "cybrid architecture" has been diffused mainly by Peter Anders ['97], as well as in LatinAmerica by Gonzalo Velez ['95]. Both authors defined this term as the integration of physical and digital spaces. Suggesting to create hybrid constructions composed by cyberspaces and real rooms. Based on the capability of electronic media to generate virtual environments which could be related to buildings, in order to expand the possibilities of architectural design and to reach some economic advantages in the construction industry. However, this univocal relationship between material and electronic surroundings has been realised only temporally in artistic installations or entertainments. (Fig.2)

On one hand, a research carried on by us [García et al, 00], and others around the world [Fencott, 99, Isdale, 00; Huang, 01], have demonstrated that design of virtual environments requires a different approach than buildings. Although the development of digital spaces could be a labour opportunity for some architects, they must be aware that several issues of the design process are distinct. The lack of materiality involves a change of composition of elements, but also a different interaction of the user with the surrounding. And most important, the studies assert that cyberspaces are based rather than an activity on the time, instead of a spatial organisation. Such means that a virtual experience must be dynamic and diverse and rarely matches with an architectural situation to conceive a joined facility to both.

Besides, several architectural thoughts about possibilities of virtuality in buildings shows a more intricate relationship. For example, Marcos Novak ['99] coined the term "eversion" (inverse to immersion) to express the physical projection of electronic media, developing material constructions based on digital data. Bermudez and Hermanson ['96] refuted the dualism between real and digital in architecture (and in life), based on the symbiosis of body (although they also tried to define a hybrid state). Elizabeth Grosz ['97] challenged to architecture to understand the cyberspace like a transcendental notion of design instead of reproduction of reality. To conceive virtuality in architecture as an entirely new way of seeing, inhabiting and designing space, instead of a technology

Fig 2. Freemont Street Gallery, Las Vegas

incorporated in buildings. Suggesting for example, that walls can have new possibilities of being otherwise.

Two recent analyses of reputed buildings mentions "virtual" qualities produced with traditional constructive materials. Josep Quetglas ['01] argues that Barcelona Pavilion of Mies Van Der Rohe is not composed by a formal or structural order, but an experience of reflections (a virtual mirror). Christian Groothuizen ['00] rejects the novelty of virtual reality, telling that the Chartres Cathedral and Soane Museum has a controlled use of light that gives sublime spatial meanings, similar to those which are describe with digital systems.

On the other hand, an extensive essay about influences of electronic media in the city [Mitchell, 1999], remarks the re-configuration of architectural functions and public places. And a comprehensive study of cultural evolution of society through information technologies [Castells, 1998], concluded about to develop processes expressed in new spaces of fluxes.

A possible source to review concrete examples of these thoughts could be some contemporary architectural projects that involves application of electronic media, like the Water Fresh Pavilion of Nox Architects built in Holland, or the Cathedral for Year 2000 designed by Peter Eisenman for Rome. These buildings proposes new architectural experiences through electronic devices and material constructions. Also the Moebius House of UN-Studio (Van Berkel and Bos) and Yokohama Port of FOA (Foreign Office of Architects) creates a new spatial quality developed by computer studies of the activities. Some public sites, like Times Square in New York, the Freemont Gallery in Las Vegas, the Sony Center in Berlin or the Millennium Dome in London combine digital media with physical buildings, generating places with an intensive urban life. (Fig. 3 and Fig. 4)
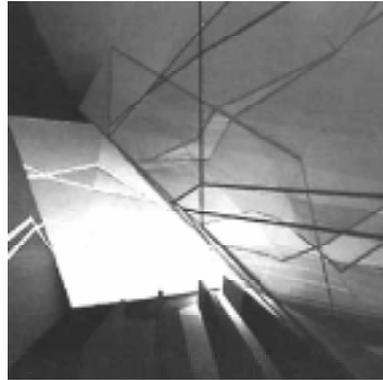
Fig 3. Cathedral Year 2000, Peter Eisenman.

Fig 4. Interior of Moebius House, UN Studio

A core concept of these places is the electronic enlargement of activity, due media involves a long-distance transference of information and images, usually by light projected on the enclosure. Such the space acquires a local and global reaching, a physical environment and a digital horizon interlaced in the events. The living of the place get a heterogeneous and undetermined configuration.

This folding of space can be better understood by the fact increasingly frequent of answering a mobile phone call inside a room plenty of people. Usually it motivates the search of refuge in a corner to get a temporal privacy. That involves a quick sub-division of space, but also an extension of activity further its limits. The threading of these situations is reflected in a twist of

physical enclosure and in the diffusion of surfaces.

The term of "projected space" could represent this quality of place. And it could be basically synthesised by a L-shaped room, where the space is sub-divided but mainly get a dynamic condition. In comparison to a square room that could represents the traditional architecture, where the space is clearly limited and stable (the space of modern architecture can be synthesised by a room with separated walls, with the fluidity of open corners, although maintaining the local definition). (Fig. 5)

In that way the concept of "cybrid architecture" is interpreted here rather than a technological addition to buildings, by a material and corporal quality of rooms. A modification of conventional
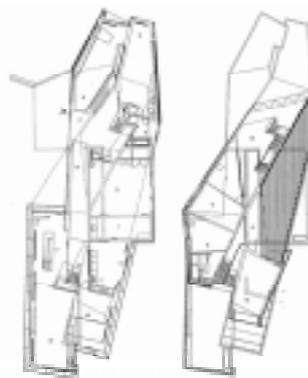
Fig 5. Plans of Moebius House, UN Studio.

Fig 6. Virtual Exhibit, U. Bio-Bio

architectural space, mainly due to cultural influence of media in the social life. Generating a new building configuration (named here "projected space") that according to the analysis and examples mentioned could be characterised by;

- extended shape: one dimension of the ground plane is major than other (such means a directional space instead of central, suggesting movement instead of stability).

- folded form: the central axis is broken in some degrees (which produces a partial division of space and diversity of interior situation)

- diagonal or curved enclosure: that can be related respectively to deconstructivist style or bio-morphism (blob-architecture)

- homogenous organisation: general composition by addition of spaces, without hierarchies of sizes, positions or axis (some order is given by a sequence of meanings or activities, not by geometry)

- heterogeneous structure: constructive lines arranged without regular continuity, parallelism or modulation.

- enlightenment contour: use of reflexive, translucent or electronically controlled surfaces, which produces changes of appearance by the climate, movement of people or media broadcast.

- diversity of materials: separation of constructive elements without identifying roles like structure, partition or finishing, even mixing roof, wall and floors, indoor and outdoors. (Fig.6)

An experimental work on these characteristics we carried on for an exhibit of a virtual environment to diffuse national news. It remodelled a university room using several computer projectors, lights, ramps and plastic partitions to create a progressive tour into the cyberspace, involving two young attendants, also reproduced like avatars. This work allowed exploring the architectural quality that probably will configure increasingly our culture of media.

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