Francesca Serrazanetti
One hundred ways of playing with space.
The educational architectures of Giancarlo Mazzanti

#### Abstract

Giancarlo Mazzanti sees architecture as a game, in the broadest and most versatile sense of the term, as something that one plays. It is a space that can be shaped and transformed, and the more it is open to manipulation, the more fully it can be understood by its inhabitants. Mazzanti "plays" with composition as an open and participatory process. If this term cuts right across all the work of the Colombian office, it receives its particular application in the creation of educational spaces. Malaguzzi's pedagogical approach guides the project: the space is a "third teacher" that forms a relationship with the children's activities and their "hundred languages", sharing in the educational processes. Drawing on the projects for some kindergartens built by the office, the article deals with the theme of educational spaces conceived as devices fostering growth. The value of educational spaces, especially in emergency contexts such as that of Colombia's outer cities, leads to the conception of architecture itself as a discipline that seeks to create environments that are educational in themselves. Keywords

Play — Co-creation — Performativity — Modularity — Relational architecture

### Relational architecture

«ART [...] Art is an activity that consists in producing relationships with the world through signs, forms, gestures or objects.

[...]

CO-EXISTENCE CRITERION. All works of art produce a model of sociability, which transposes reality or might be conveyed in it. So there is a question we are entitled to ask in front of any aesthetic production: 'Does this work permit me to enter into dialogue. Could I exist, and how, in the space it defines? A form is more or less democratic. May I simply remind you, for the record, that the forms produced by the art of totalitarian regimes are peremptory and closed in on themselves (particularly through their stress on symmetry). Otherwise put, they do not give the viewer a chance to complement them.

[...]

RELATIONAL (AESTHETICS). Aesthetic theory consisting in judging artworks on the basis of the inter-human relations which they represent, produce or prompt» (Bourriaud 1998).

The theories systematized by Nicolas Bourriaud in his "relational aesthetics" have become, in the first two decades of the 21st century, a reference point for many artistic and design practices<sup>1</sup>. In their openness between art and design, between aesthetics and society, Bourriaud's principles effectively introduce the commitment of El Equipo Mazzanti in the design of educational spaces, both in its theoretical premises and its design manifestations<sup>2</sup>.

Architecture understood as "action" guides the work of Giancarlo Mazzanti, who considers architecture itself as a form of learning, and the project as a tool that aims to promote and facilitate socialization. The "performativity" of space is then a fundamental principle: a performativity that denies



the *performance* in terms of performance, to instead enhance its primary meaning of "activity".

Architecture is, therefore, also play: in the broadest and most versatile meaning of the term *play*, it is something that is enacted<sup>3</sup>. It is a space that can be shaped and transformed, and the more it is open to manipulation, the more it can be understood by its inhabitants. Giancarlo Mazzanti "plays" with composition as an open and participatory process. Play becomes a device structured by an immediate (but at the same time complex) set of rules that have the capacity to control the evolution of spatial systems and the interaction between them and people. It is a tool for composing and expressing the project, for presenting it and modifying it, based on open-ended systems and relationships between the parts. Architecture, like play, is made up of elements that, when mixed and reorganized, can function differently, within predefined parameters.

The principal tool of play consists of modular systems which, in the compositional practice of the Equipo, become a veritable means of design. These are open and flexible systems, made up of single elements that can be composed and adapted to different external conditions. In architecture, they give rise to projects capable of growing, changing and being shaped in keeping with topographical, programmatic and urban parameters, based on particular circumstances or evolutions that occur over time. These are strategies conceived more in terms of method than in relation to a permanent formal outcome: they exist only by virtue of their ability to change. The architecture that arises from this approach is therefore based on versatile systems and unfinished elements, which evolve as molecular aggregates. Once again play can be a tool for controlling them. By adding one piece after another, the system can grow even outside the architect's control.

If this approach traverses all the work of the Colombian office, it finds its particular application and importance in the creation of educational spaces. It is important to add that, for Giancarlo Mazzanti, educational spaces have been a field of experimentation that is useful for defining his way of thinking and practising architecture, apart from their specific function. The opportunity to work on many projects of educational spaces<sup>4</sup>, especially for day-care centres and kindergartens, have led him to experiment with the fundamental principles of the firm's work in this sector, principles which then proved valid for the broader areas of the project.

### Co-creation: educational spaces beyond their function

Underlying the projects for educational spaces by El Equipo Mazzanti is a radical criticism both of functionalism and the idea of surveillance derived from the space of the factory as a model.

A fundamental reference in this regard is the concept of *device* proposed by Michel Foucault, and even more the models and mechanisms of control and surveillance identified in his *Discipline and Punish* (Foucault 1975). Mazzanti distances himself from a traditional approach to the design of educational spaces based on functional efficiency: a trend that has implemented strategies of control and discipline by using typological systems common to schools, prisons and hospitals.

Mazzanti opposes the *homo faber* of the industrial era with the *homo ludens*. Hence play becomes a tool for using space in an unexpected way and establishing an active relationship with it, going beyond functional efficiency. Apart from the function of the educational program, the spaces therefore become educational in themselves, and their impact becomes much wider.





Fig. 1
Toys exemplifying the compositional systems of the Equipo Mazzanti projects.

Schools and kindergartens become part of a broad socio-educational project that comprises children, teachers and families. The influence of play is still very clear. Mazzanti sees playful culture as a useful tool for delivering to communities an architecture that is an instrument for learning and open to transformation.

The users' active participation renders them creative and active subjects, capable of transforming, modifying and occupying space in different and unexpected ways. The architect and the users are both responsible for the creation of the architecture.

Starting from the premises outlined so far, the Equipo has built dozens of schools, especially in Colombia, identifying modular growth models and creating architectures that have as a requisite the potential to be modified by their users.

The value of educational spaces, especially in emergency contexts such as urban peripheries in Colombia, leads to the conception of architecture itself as a discipline that seeks to create spaces that are themselves educational. The role of play is not linked so much to compositional principles intrinsic to the architectural language, as to a participatory and inclusive relationship with society and its users.

A particularly significant project in this respect is the Atlantico Kindergartens (2016), a series of thirty-one kindergartens designed following the flooding of the Atlantico region, due to the breaching of the Canal del Dique. After the flood, the need to build various structures rapidly led El Equipo Mazzanti to define an open and participatory system. Thus three typologies were defined (elongated, open and star-shaped) by which, through co-planning seminars, the communities were able to define the configuration of the individual kindergartens to meet the needs of their specific contexts.

The project was guided by a modular system, where the enclosed spaces were independent and autonomous and could be built to a simple and rapid





Fig. 2
Atlantico Kindergartens: aerial views of some kindergartens made according to the three types (open, elongated, star).

construction process. The individual modules were connected by a circulation system that went beyond its distributive function, introducing another key aspect of Mazzanti's work: it is a space that can be used for community activities supplementing educational ones.

# Space as a third teacher

Going beyond the physicality of the project and its formal execution, architecture plays a leading role in the transformation of the city and the construction of citizenship. In Giancarlo Mazzanti's design methodology, the architectural space becomes, we can say, a learning mechanism in itself. Again starting by superseding a concept of space controlled by the logic of function and surveillance, the design intentions of El Equipo Mazzanti are translated mainly into two strategies. The first is the importance of empty space, linked to the cancellation of the corridor understood as a tool for organization and control. The relationship between spaces is not conceived only in functional terms of circulation, but is mediated by the void. The empty space is of central importance because it can be filled with meanings, adding the more important sense of discovery to the sense of connection. The second is the flexibility of the environments, the ability to shape and modify them according to the needs of pupils and teachers. The pupils thus become the constructors of the space, because they are free to choose what type of relationship to establish with it. The possibility of looking and being looked at, the transparency, spatial continuity and the permeability of the interiors are other consequences of these principles.

The centrality of the relationship and the freedom left to users (in this case children) to move in space highlights a concept of "relational" space that brings us back to the principles, mentioned at the beginning, associated with "relational" aesthetics: «When we speak of relational spaces, we understand the place as an integrated space. The place is not made up of functional areas, but rather of teaching environments capable of defining atmospheres and relationships of play and learning»<sup>5</sup>.

The relational space is the cornerstone of the Baby Gym project (Barranquilla, 2013), which involves the dissolution of the idea of the limit between



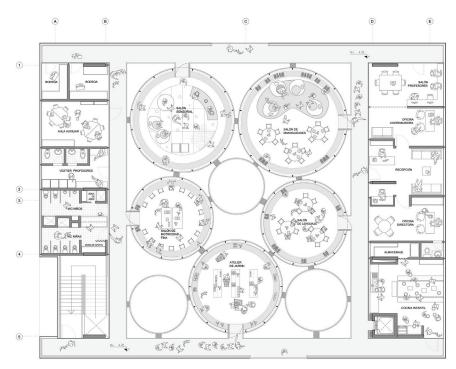


Fig. 3
Baby Gym Barranquilla, plan of the main level.

the classroom and the distribution space, which enter into relationship and continuity. The classrooms are glazed elements with circular bases, which remain as if floating and suspended in a broader connecting environment, which unites them without separating them. Eliminating the limits between interior and exterior thanks to the transparency of the walls and making the circulation space a void that favours contacts between children stimulates their freedom to move in space and form relationships with each other.

In all these projects, before defining the compositional and functional aspects, it is important to understand the teaching method. The pedagogical frame of reference seems to be more important to Giancarlo Mazzanti than the architectural reference. Loris Malaguzzi's pedagogical approach is the one that most often guides the project<sup>6</sup>, as in the case of the Baby Gym in Barranquilla: the space is a "third teacher", a formative agent that enters into a relationship with the children's activities and participates in the educational processes.

The space has to foster relationships and behaviours and open up new forms of use of space through the dissolution of the limit. The recent La Ilusión kindergarten project (Cajica, Cundinamarca, 2020-), whose construction has been slowed down by the suspension of the start of work due to the spread of COVID, is another important step for Mazzanti's research into these issues. Here as elsewhere, we find a rhizomatic concept of growth that has no end or beginning and that will enable the project to be replicated in a similar way to the Atlantico kindergartens. The project works as an open-ended modular structure capable of growing. The corridor is also reinvented here, and becomes a "millipede" device, which allows children to move and enter into relationships with each other. On an oriented path that makes for a quick and efficient connection are superimposed other more tortuous circulations, which enable them to traverse the space not functionally but experientially, as a form of discovery. Outside the classroom, conceived as flexible, open and indeterminate, various thematic and cognitive spaces are articulated, which offer different interpretations of the space as a "third teacher" capable of stimulating interaction, experience and growth.



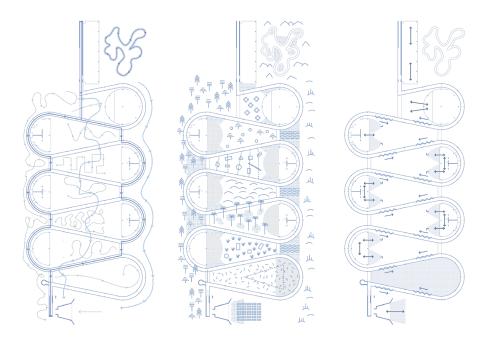


Fig. 4
La Ilusión kindergarten: open circulation systems, thematic and cognitive spaces, flexibility and diversity.

## The educational space as an open work

We have already seen that modularity is the basis of a design strategy resting on growth, which is fundamental to the El Equipo's design practice. Rather than a finished and closed architecture, Mazzanti's architecture is a practice open<sup>7</sup> to the development of adaptive systems, consisting of modules and models of aggregation, capable of adapting to the most diverse situations, whether they are topographic, urban or programmatic.

The diagram as the DNA of the project, together with the adaptive modules and systems, is the fundamental strategy of this operational practice. Particularly significant in this regard are the materials that document the design process, the maquettes used, the sketches, the juguetes used to construct and represent the project, and which demonstrate the flexibility of the geometric systems from which it developed. While the project for Pies Descalzos (Cartagena, 2014) is based on a sequence of three intersecting hexagons, the perimeter of which defines the circulation and contains the functional program, in the case of the Porvenir kindergarten (Bogotá, 2009) the oval building-enclosure intersects with square-based volumes that are grafted onto it, inside and out, flexibly reworking the typological figure of the courtyard as an archetype of school architecture. Both projects are examples of the way educational structures can offer opportunities for urban and social regeneration, being defined as veritable social condensers. The Pies Descalzos school seeks to consolidate the neighbourhood and improve the lives of the residents by generating alternatives for personal and community development as well as an environmental transformation of the area. The Porvenir kindergarten is also a visible structure and reference point for the neighbourhood, and its function goes far beyond the educational, extending to take in a much broader social sphere. Interaction here becomes a compositional and social principle, defining a reference that returns in various other projects by El Equipo Mazzanti<sup>8</sup>.

A final example that strikes me as fundamental to cite as an example of Mazzanti's modular and open strategy is the Timayui kindergarten in Santa Marta (2011). This project was created with the aim of improving the conditions of early childhood and access to education for the most vulnerable groups of the population living in the outer perimeter of the city. An open and adaptive architectural system, made up of flower-shaped modules adaptable to

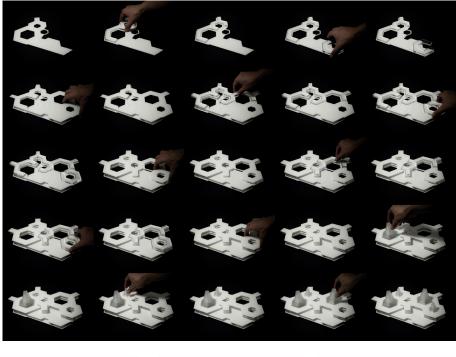


Fig. 5 Pies Descalzos School, aggregative models.

**Fig. 6**El Porvenir, project simulation toys.

Fig. 7

El Porvenir, design process.













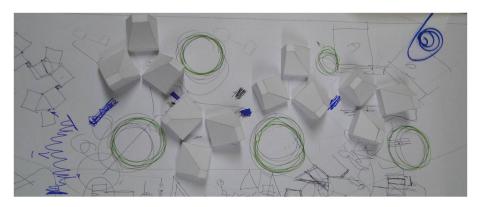


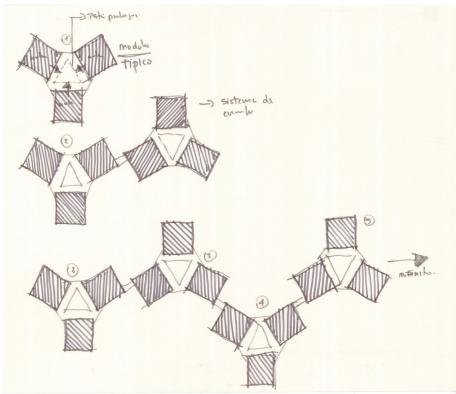




**Fig. 8**Timayui Kindergarten, design process.

**Fig. 9**Timayui Kindergarten, growth system sketch.





different situations, generates buildings capable of growing and transforming to suit particular or temporary circumstances. The project consists, as we have now seen in various cases, in a method strongly linked to its modifiability, rather than to a permanent form<sup>9</sup>.

If Mazzanti's work is undoubtedly influenced by those design approaches that work by modules and growth devices, the most marked influence is recognized in pedagogical and educational theories<sup>10</sup>. In keeping with the concept Loris Malaguzzi expressed in speaking of «children's hundred languages», space has to be capable of expressing their hundred ways of thinking, playing, speaking, listening and discovering.

Reflecting this intention, the design principles embodied in the work of El Equipo Mazzanti aim to mark a transition that, starting from research into educational spaces, can be applied to all areas of the project. A transition that marks the fundamental passage from the device of disciplining to the device of freedom.



#### **Notes**

- <sup>1</sup> The criteria for the quality of public space and the encounter between bodies have been drastically questioned by the spread of the COVID pandemic in 2020: but if the means and terms of this relationship (porosity, fusion, interaction, contact) will probably require, at least temporarily, to be recodified, the ultimate goals of these aesthetic theories do not seem to change.
- <sup>2</sup> Many of the contents formalized in this article derive from my personal conversations with Giancarlo Mazzanti in particular in 2017, when I edited the volume with Matteo Schubert, *Giancarlo Mazzanti*. *Inspiration and process in architecture* and in February 2021, for the preparation of this essay.
- <sup>3</sup> For an in-depth analysis of the subject, in terms close and partly complementary to that is dealt with in this article, the reader is referred to number 51 of FAMagazine "Del 'gioco' e del 'montaggio' nella composizione" (2020).
- <sup>4</sup> One of the first projects that the practice worked on, and which later became exemplary and referential for many others, was the El Porvenir project (2009). Between completed projects and competitions, the office has dealt with dozens of projects of educational spaces for children, primary education and universities.
- <sup>5</sup> From a conversation of mine with Giancarlo Mazzanti, February 2021.
- <sup>6</sup> Also particularly significant, for comparison with this pedagogical theory, was the project for the competition of the Loris Malaguzzi international centre (Reggio Emilia, 2012), an opportunity to explore anomaly, play and heterotopy as opportunity to multiply use and encourage diversity in the use of space.
- <sup>7</sup> Another important reference for this approach is Umberto Eco's *L'Opera Aperta* (1962; English translation *The Open Work*, 1989).
- <sup>8</sup> In the competition La Enseñanza in Bogotà (2020), the device was applied with the reverse strategy, the modules of the classrooms and other functional spaces being inserted externally to the distribution ring.
- <sup>9</sup> Again in this case the spatial configuration starts from the understanding of Loris Malaguzzi's educational philosophy, which led to the idea of creating an element that suggests three interrelated centralities, and that creates situations and experiences between children, teachers and families.
- <sup>10</sup> In recent years, Giancarlo Mazzanti has been interested particularly in the work of the educationist Beate Weyland.

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Francesca Serrazanetti, Ph.D. in architecture, since 2011 she has been teaching and carrying out research activities at the Milan Polytechnic. Alongside her academic commitment, she collaborates with architectural firms, publishing houses, museums and cultural institutions. Since 2018 she is part of the editorial staff of the magazine "Casabella". She directs the editorial series "Inspiration and Process in Architecture" (ed. Moleskine), in which she edited several monographs dedicated to the creative process: this, together with the relationship between space and performing arts, is a central theme of her research, also presented in articles and conferences in Italy and abroad. She is co-founder and editor of the peer-reviewed journal "Stratagemmi", a biannual publication of theater studies.

