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EDUCATION, HERITAGE, CHALLENGES

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EDUCATIONAL ARCHITECTURE EDUCATION, HERITAGE, CHALLENGES

Conference Proceedings

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IN PORTUGAL
ASAP

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THE GREAT SEASON OF ITALIAN SCHOOL ARCHITECTURE (1960-1980):

REFLECTIONS ON A PLURAL MOSAIC.

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ABSTRACT

The paper offers a comparative perspective focusing on a peculiar season of the Italian experience. This rests on the belief that, even when political, professional, technical, cultural and geographical issues played a crucial role strongly characterizing national paths, the history of school architecture mostly is an international one. The importance that transfers from a nation to another have in such context and the evident neglect of school architecture in Italian historiography are further reasons to propose a transnational perspective.

The considered period starts with the XII edition of the Triennale di Milano, held in 1960 and devoted to "The house and the school". That was a moment in which Italian design culture was perceiving itself in a condition of backwardness. This is the reason why many international references were displayed.

The following two decades represent a fundamental season for Italian school architecture. In fact, more than the 40 % of Italian educational buildings were built up then. This was due to political reasons, firstly the creation of the new secondary school, but also to the demographic increment in the years of the economic boom. The period, however, is not significant just for the amount of the production. It was also a moment of innovation and fertile pluralism. Such a combination of quantitative and qualitative issues, make possible to consider the period as the "great season" of Italian educational architecture.

The paper depicts most of the issues that played a major role in the Italian architectural debate of those years. The organization of the outer and the inner space, the relationship between the school and the society in the urban and the suburban context, tectonics, modularity and prefabrication systems, the symbolic values of the educational buildings, the role played by international references were, among others, the poles within which the practice and the theoretical discourse developed.

KEYWORDS

Italy, 1960s, 1970s, Educational Architecture, Open School

1. A HISTORIOGRAPHIC PREMISE

Over the last few decades a significant body of literature has been consolidated on the

subject of school architecture. This phenomenon has been underlined a few years ago in the presentation by Marta Gutman (2012) of some books dedicated to the subject and mainly focused on national cases.

The richness of the themes that this production highlights in the interweaving of the history and historiography of educational systems, the architectural debate, technology, urban planning, and so on, underlines in a retrospective glance the paradoxical marginality that this segment of the architectural heritage has known on the level of the general historiographic narrative.

In fact, leafing through the main architectural histories, the truly peripheral space dedicated to a subject that has occupied significant spaces of architectural research both theoretically and quantitatively emerges. References to school architecture are minimal. These are limited to works mentioned above all for their linguistic results and innovations which legitimise their presence within a substantially formal reading of architecture. The absence is even more striking when the field of observation is restricted to the second half of the 20th Century, a period in which the centrality of the school is strictly related with the dynamics that accompany the emergence of a mass society and of a welfare system.

In this framework, the Italian situation suffers a double shortcoming: on the one hand, a set of monographic works which render the trajectory of national school architecture along the course of the 20th Century is still lacking, while, on the other hand, the histories of Italian architecture cast over schools rare and selective glances. It is no coincidence that one of the most influential histories of post-war Italian architecture, the one by Manfredo Tafuri (1986: 42), dealing with "the years of reconstruction" and specifically with the new public neighbourhoods, observes that "the myth of the nuclear city - nuclear = organic - corresponds to the ideology of the neighbourhood unit of appropriate size, gathered around the primary services, the schools first of all", but then does not even mention a single school built between the end of the conflict and the early fifties.

However, this blank is also due to the critical state of Italian school architecture in the post-war years. A crisis that is also visible through journals. Already in the first issue of *Casabella-Continuità*, published at the end of 1953, Ernesto Rogers (1953) complains that "Italy is absent". He refers to the exhibition on international school architecture curated by Alfred Roth in Zurich and explains such absence with the low quality of the Italian proposals from which only few exceptional cases emerge. Among these, stands out the Marchiondi Spagliardi Institute by Vittoriano Viganò, built on the outskirts of Milan between 1953 and 1957, which imposes itself in the national debate both for linguistic reasons and for its "open" organisation, even though the structure is intended for "difficult" children (Pedio, 1959).

In this context, this contribution aims to offer the laudable initiative of the Atlas of School

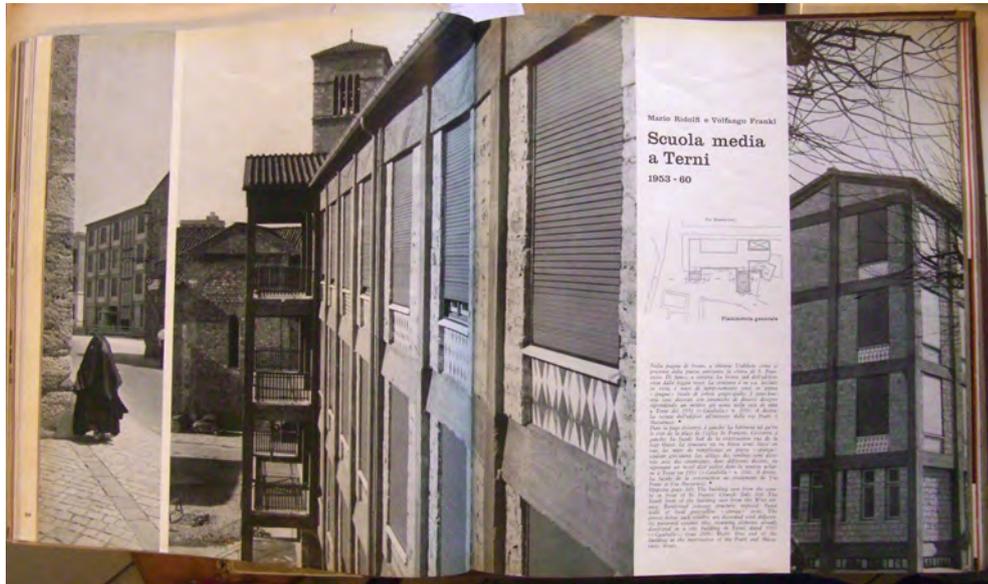
Architecture in Portugal, if not an Italian atlas, which, as things stand, would perhaps be too ambitious, at least a schematic map that can serve as a basis for comparison. This map observes what probably is, in terms of quantity and quality, the most significant period of Italian school architecture in the twentieth century.

2. 1960: A WATERSHED YEAR

Towards the end of the 1950s, Italian school architecture seems to be in a state of disarray. In 1959, the government launches an ambitious "school development plan" for the following decade. The Study Centre, founded at the beginning of the decade within the Ministry of Education, promotes significant researches thanks to the commitment of architects such as Ciro Cicconcelli (1960). However, these remain the prerogative of a small circle of professionals, mostly belonging to the Roman environment. The majority of the design culture, on the other hand, seems to be lacking in the tools to deal with the acceleration that politics intends to impress on the sector and thus proceeds, empirically, by trial and error. One can find evidence of the absence of a shared horizon if one observes, at the end of the 1950s, the activity of two protagonists such as Ludovico Quaroni and Mario Ridolfi. The first one is engaged in Ivrea in the construction of the school for the Canton Vesco neighbourhood: a one-storey building, organised in square pavilions connected by orthogonal paths. The school reveals a careful observation of the experiences developed in the Anglo-Saxon area and could perhaps have become a model, if a series of bureaucratic misadventures had not postponed its completion until the middle of the following decade (Tafuri 1964: 136-137). Ridolfi instead, in the historic centre of Terni and therefore in a less conducive context to horizontal expansion adopts the multi-storey type in a sort of reinterpretation of the late XIXth Century schools by Camillo Boito. But the model is the object of continuous infractions, through the introduction of spatial and distributive variations and foreign elements (fig. 1).

In this climate, in 1960, the twelfth edition of the Triennale di Milano, dedicated to "The house and the school", takes place. Although the duplicity of the title allows a high degree of freedom to exhibitors and national pavilions and represents an element of continuity with the theme of home furnishings that, from the beginning, has represented one of the main horizons of the event, there is no doubt that the XII Triennale raises the issue of school architecture to Italian public opinion with a media impact until then unknown. Conspicuous parts of the pavilions of Switzerland, Belgium, the Netherlands, Mexico, Germany and Israel are devoted to schools. UK even builds a model school in Sempione Park. Designed by W.D. Lacey, Nottinghamshire County Architect, it is a typical three-class primary school, erected with the C.L.A.S.P. prefabrication system. It strongly impacts visitors and is also taken as a sort of model for the design competitions for similar schools which the Triennale organises in several Italian cities in the next months. The exhibition also includes a review of

Figure 1. Mario Ridolfi and Wolfgang Frankl.
Secondary School
in Terni, 1953-1960.
Casabella Continuità,
245, 1960.



international examples, contributing to their affirmation in the collective imagery. So, local design culture becomes familiar, among other references, with Hans Scharoun's schools for Darmstadt (1951) and Leunen (1958-1962), with the Heatcode School by Perkins and Will (1951-1954) and with Arne Jacobsen's Munkegaard school (1951-1954).

3. THE GREAT SEASON OF ITALIAN SCHOOL ARCHITECTURE (1960-1980)

Statistics identify the twenty years following 1960 as a phase of extraordinary quantitative relevance for the production of school buildings. In fact, 44% of the buildings currently devoted to teaching have been built between 1961 and 1980. This figure, one could observe, is the direct consequence of the demographic trend and of a birth rate which, at the beginning of the 1980s, registers a decrease. But it should not be forgotten that the 1960s and 1970s constitute a phase in which, in general, the theme of social facilities acquires a decisive importance in the (not just) Italian planning discourse, becoming a fundamental key for the interpretation of urban transformations. Finally, school reforms, with the establishment in 1962, of the Unique Middle School and then of state kindergartens, also actively contribute to this quantitative growth. It is therefore not surprising that, for reasons of both scale and culture, the period in question is also a phase of great typological and constructive innovation, in which prefabricated systems begin to be used regularly. Furthermore, the architecture of the school, certainly benefiting from the large media exposure offered by the Triennale, finally becomes one of the topics of debate, both on the political and on the design level, although in most cases still restricted to a specialised public.

This last point clearly emerges even from a rapid review of the bibliographic repertoires and specialised periodicals that reveals how, starting from the months in which the twelfth Triennale takes place, school building becomes in the 1960s and 1970s a real thematic strand (Aloi, 1960; Paoli, 1960), approached, depending on the case, in its typological, rather than in its constructive aspects (Leschiutta, 1975), from a pedagogical (Romanini, 1962) rather than normative perspective (De Longis, 1961). This literature, which denotes, among other things, the existence (especially in Florence) of publishers particularly interested in the themes of school and school building, such as *La Nuova Italia* and *Le Monnier*, is accompanied by a production more closely focused on the construction aspects and in particular on the use of prefabrication. These contributions, of which here it is only possible to report partially, are produced by internal entities of the Ministry of Public Instruction, by associations such as the Italian Technical - Economic Association of Cement (AITEC), the Institute for the Development of Social Housing (ISES), the General Association for Building (AGERE) as well as by a reduced number of increasingly specialised technicians.

While such glances can provide a qualitative picture of the variety of approaches to school architecture during the 1960s and 1970s, direct observation of design practice reveals a complexity that is difficult to sum up. In fact, in these decades (and partly in the following one) the majority of the buildings that configure, often with significant variations between one region and another, the traits of school building in the collective imagery are realised, mostly by little known designers. But the lack of a "school registry" that also includes data on the project, the construction site and the professionals involved makes it difficult and uncertain, if not on an extremely limited scale, the construction of an overall narrative of the developments of Italian school architecture in the sixties and seventies. Therefore, we proceed by selective cuts, isolating some contexts, works and professional trajectories that can be considered exemplary.

4. THE OPEN SCHOOL PARADIGM: BETWEEN NEW DIDACTIC SPACES AND SOCIAL INCLUSIVENESS

The case of the *Collettivo di Architettura* provides a paradigmatic example. The group is an expression of the then recurrent binomial between project and ideology, between profession and active politics in the ranks of the Italian Communist Party. Formed by a group of students within the Faculty of Architecture of the Politecnico di Milano at the end of the 1940s, the *Collettivo* begins its professional career in the early 1950s. Its members include architects Vincenzo Montaldo, Giorgio Morpurgo, Achille Sacconi, Novella Sansoni, Mario Silvani, Alessandro Tutino and Virgilio Vercelloni, who are primarily engaged in territorial issues, often in the role of municipal technicians of small and medium municipalities in the Milanese hinterland, and housing. The school becomes a recurring theme for the group in the years immediately following the XII Triennale, when the opportunities to design school

buildings in the municipalities of the Milan belt follow one another. In areas characterised by generally unskilled residential construction and by shortage of services, the schools designed by the Collettivo are proposed as open spaces, addressed to the entire community, sometimes with gyms, theatres or libraries designed (and sized) for a wider audience. From the design point of view, instead, this series of schools reveals a continuous typological and formal research, often dominated by a common space/hall.

The kindergarten and elementary school in Rozzano (1963-1966), for example, clearly reflect the observation of previous Anglo-Saxon experiences and the vigour of the typological model of the active school: probably inspired by the school of Amersham (1957), a large common space distributes, on two floors, the didactic units, the gym and the kindergarten, while the external profile of the school "organism" is expressly cut out to assign each area a green outdoor space. In this way a direct relationship is established between the classroom, the garden and the common space, allowing the fluid passage between different educational situations. The middle school of Buccinasco (1965-1969), on the other hand, offers a paradigmatic example of the desire to make the school not only a place devoted to education, but also a strongly rooted in the territory structure, capable of "promoting associative initiatives of a cultural, sporting and recreational nature", of transforming itself "into an active protagonist for the life of the town, and which consequently faces reality not to serve it, but to deeply modify it, to improve it" (Vercelloni, 1969: 32). Classrooms are all located on the first floor, while the ground floor, in a composition of curved lines and circumferences, houses, next to the refectory and the laboratories, the constituent elements of a new community centre: the library, the assembly hall, the theater, the gym and the civic centre (not built). The school is therefore proposed, at the same time, as a new aggregation space for the territory in which it is located, but also as a tool for physical and intellectual growth aimed at children and adults. The school of Ponte Sesto (1968-1974, fig. 2) provides a third emblematic example, among the many realisations of the members of the Collettivo. Conceived as an elementary school and then used as a kindergarten, the complex is structured in formally independent pavilions connected by a covered path. In this way, it constitutes a flexible system, capable of growing and changing over time. The basic element of the system, the pavilion, is the formal result of a graphic operation of juxtaposition, overlapping and translation of hexagons, then completed by equilateral triangles containing services, in order to obtain a vaguely star-shaped profile which houses a group of classrooms gathered around a common central space. The majority of internal partitions are made up of bellow walls, allowing a variety of spatial conformations which, like in Rozzano, are further enhanced by the strong relationship between the classrooms and the external space.

While the construction of the schools designed by the Collettivo is often the consequence of the creation of the new middle school in 1962, in the 1970s a new cycle of construction

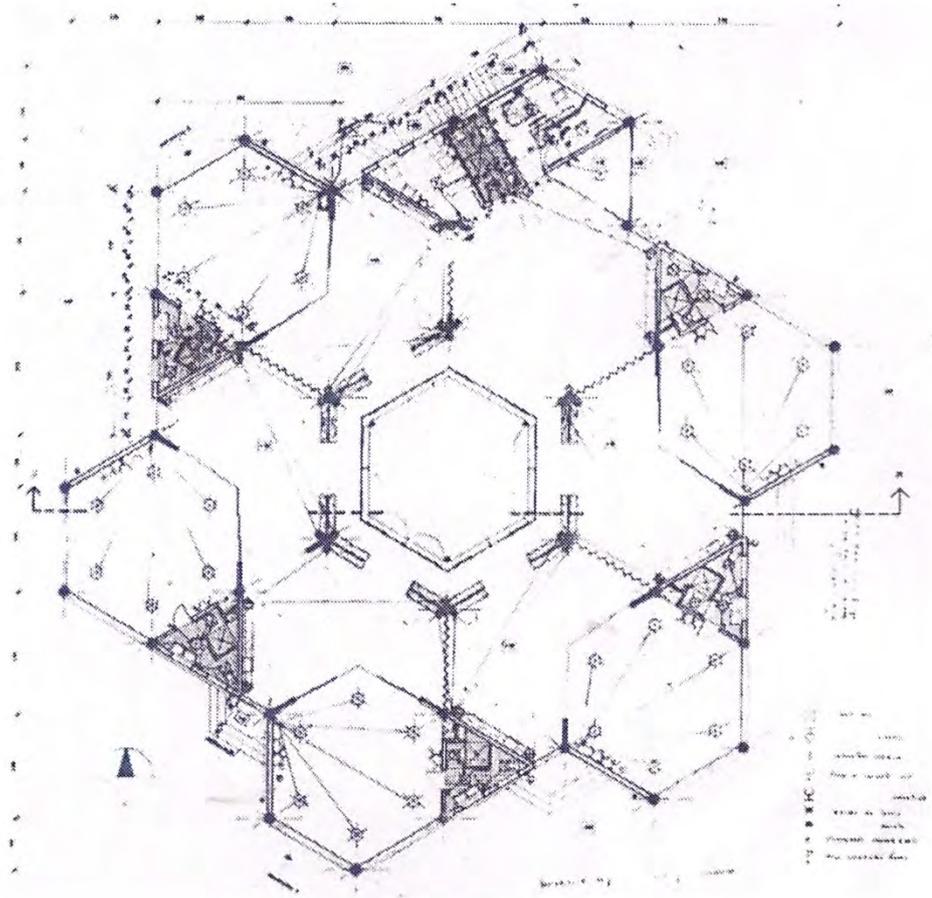


Figure 2. Novella Sansoni (Collettivo di Architettura). Primary School in Ponte Sesto (Rozzano, Mi), 1968-1974. Plan of a pavilion.

sites is opened as a result of the reform of the upper secondary school. Also in this case, the Lombard example, and in particular the territories of the Milanese hinterland, stands out for the number of buildings built, for the quality of some realisations, for the high number and heterogeneity of the (not always local) designers involved and for a system of procedures that has changed over time, passing from the "competition for ideas" to the tender (Franchi, Gallinella, Michelagnoli, Ponti and Selleri, 1985). But, probably, the most emblematic case of secondary school is represented, not just for reasons related to architecture and schools, by the complex "Concetto Marchesi" of Pisa, seat of a scientific high school and a technical institute for surveyors (fig. 3). Its author is Luigi Pellegrin, an architect who in the course of his career has repeatedly dealt with schools, starting with those designed in the 1950s in Urbino and Sassari in collaboration with Cicconcelli. At the end of the 1960s, the Province of Pisa launches an international competition for the new school complex on the basis of an innovative call which, as a political response to the protest of those years, requires an open to society structure (Cascella, 2010: 5).

The jury, chaired by Bruno Zevi, assigns the first prize to Pellegrin's project, which presents

Figure 3. Luigi Pellegrin
 “Concetto Marchesi”
 complex. Pisa, 1972-
 1974.



many elements of interest. From the construction point of view, for example, the building adopts an innovative pre-cast concrete system (the "Benini System 3"), designed and patented by Pellegrin himself, in which "T" shaped pillars of different heights support the loading beams. In this way, the spatial articulation that characterises the section, with frequent uses of double and triple heights, is easy to achieve. The issue of "opening" the school to the territory is literally resolved: the building is almost totally raised on pillars and, therefore, does not constitute an obstacle to those coming from the outside; moreover, the roof is a continuous inclined plane that towards the west, that is in the direction of the most densely populated area, reaches the ground, acting as a continuation of the public space. From this floor only the volume of the pool, higher and with opposite inclination, emerges. It is intended to be used, like other services, not exclusively by students. Shortly after its inauguration, the structure begins to be, repeatedly, the object of maintenance, consolidation and expansion works which do not always take into account its high degree of experimentation. The fencing of the perimeter, realised for security reasons, has finally distorted the project. In recent years, the complex's maintenance has become more and more costly and, in 2009, the Province proposes to demolish it, provoking the firm reaction, among others, of the Bruno Zevi Foundation, Legambiente, the Institutes of Architects of various cities and the Italian section of Do.Co.Mo.Mo.

5. FORMS AND SYMBOLS

If, despite the heterogeneity of approaches and destinies, the examples cited so far outline, at least in their general features, a common paradigm, it should be noted that the schools



Figure 4. Guido Canella, Michele Achilli, Daniele Brigidini. Primary School. Pieve Emanuele (Mi), 1972-1973.

that have left the greatest trace in the post-war history of Italian architecture have done so mainly by virtue of their linguistic and formal properties, almost constituting an alternative paradigm.

The schools designed by Guido Canella for Milan's hinterland, for example, share with many schools of the 1960s and 1970s the tension towards a social dimension, but pursue it with completely different tools from those used by Pellegrin or by the members of the *Collettivo di Architettura*. Schools such as those in Pieve Emanuele (fig. 4), Noverasco di Opera and Cesano Boscone, rather than offering territorial services, aspire to establish themselves as landmarks in the anonymous suburban landscape, as civic monuments. It is no coincidence that sometimes they are grouped within polyfunctional organisms with other social, cultural or administrative functions in order to reach a physical and functional dimension sufficient to constitute themselves as "hearts of the non-city".

The communicative urgency of the schools by Canella overshadows constructive and distributive issues concentrating on linguistic and formal ones. With a "bold eclecticism" (Tafuri, 1986: 164) undoubtedly precocious with respect to the Italian scene, which in some ways recalls the work of James Stirling, Canella's design proceeds by addition, juxtaposing fragments, references, quotations and materials: an interpenetration of forms that reflects, at least partially, the functional complexity of those buildings. The elements for these collages are drawn from a more or less distant, but nevertheless mythical, past: on the one hand, the tympanums coming from an undefined age of enlightenment, on the other the daring forms of Soviet constructivism, of the workers' clubs and social condensers of the post-revolutionary Moscow.

Figure 5. Aldo Rossi,
Gianni Braghieri,
Arduino Cantafora.
Primary School.
Fagnano Olona (Va),
1972-1976.



An even different interpretation of the interaction between school and territory is at the basis of the first and probably most successful (Ferlenga, 2006-2007: 81) school designed by Aldo Rossi: the elementary school in Fagnano Olona, in the province of Varese (1972-1976, fig. 5). Rather than social interaction, Rossi seems to be looking for an intellectual resonance pursued through a series of analogies, poised between the claimed objectivity of the scientific method and the subjectivity of memory. Compared to the previous ones, it is an introverted building, developed around an internal courtyard where some have read the metaphor of a farmyard, a cloister or a theatre. Typologically, the school represents a return to order after a decade of experimentation, sometimes pushed to the limits of mannerism: the linearity of the corridor and not the fluid flexibility of common spaces structures the internal circulation. On this plot, the school hosts a series, almost a kaleidoscope, of references: the farms and factories (obviously alluded by the chimney that marks the entrance) of the most immediate surroundings, but also Loos, Stockholm Public Library by Asplund and the Lichthof of the University of Zurich.

6. AT THE END OF A SEASON: AN APPRAISAL

Perhaps more than a number of examples which, although paradigmatic, can give nothing but a fragmentary picture of the complexity of the debate and of the heterogeneity of the schools built in those years, the issue 447/448 of *Casabella*, published in 1979, can provide an effective point of view to capture a synthetic image of Italian school architecture in the 1970s. Then directed by Tomás Maldonado, the magazine looks at schools with great attention because "it is one of those few sectors where interventions of significant dimensions are still carried out and where a widespread professional commitment is visible" (Airoldi and Guenzi, 1979: 11), but also because the topic is related to some of the issues that in recent years have defined the editorial line of the journal: planning, prefabrication, politics. However, the prevailing attitude is "frustration": "the school in fact appears today as the ground on which the inadequacy of a system of government that chronically shows itself to be incapable of planning and implementing serious structural reforms is most tangibly measured" (Maldonado, 1979: 9). In the absence of "legislative - and therefore also cultural" reference frameworks, "what we could call a "school building culture" has developed as an autonomous disciplinary and productive sphere", but "autonomy tends to turn into a sort of bag of subculture, divorced as it is from both the general political-pedagogical debate and from the themes under discussion in the more general field of architectural culture" (Maldonado 1979: 9). And "all this is all the more serious in the light of the strategic role that the school sector could play for the re-qualification of the territory and of "design"" (Airoldi and Guenzi, 1979: 15).

In the editorial, Maldonado provides a classification of 1970s school architecture which, although schematic, might perhaps help to better place some of the examples mentioned above. Three strands are identified. The first is represented by "analysts", that is, those designers who privilege methodological analysis often losing sight of the final outcome. "The passion for methodology, as we once said, ends up turning into methodolatry" (Maldonado 1979: 9). The second group includes "specialists", designers dedicated almost entirely to educational architecture. The widespread merits of this category lie in the in-depth study of functionality in relation to educational needs; their limit is the overestimation of the effects of typology on social behaviours. The third strand "is the typically formalist". The functionality of the building, intended "as a fetish", is subordinate to the "architectural-formal solution": "a trend that is perhaps more culturally sophisticated, but that produces buildings that are often unusable" (Maldonado 1979: 9).

Obviously, the great season of school building does not exhaust abruptly with the end of the 1970s: the new regulations approved in December 1975 and partially modified in 1977, together with the long-term programs inaugurated over the decade, if are not able, as *Casabella* has complained, to establish an authoritative, organic and univocal framework of references, trigger building cycles which transcend the border between the 1970s and

the 1980s. Maldonado's attempt at classification, if one accepts the schematic nature of the three strands, maintains therefore a certain validity also in the following decade. Actually, the distance between specialists and formalists becomes even more evident, amplified by the new orientations of the Italian and international design culture: "the end of prohibitionism" (Portoghesi, 1980), inaugurates a phase of uninhibited recovery of forms and themes of the architecture of the past in a general framework marked by a pronounced pluralism.

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