

# Space and Figuration of the School Building in the Construction of the Metropolitan Periphery: The School as a Social Emancipation Workshop



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**Abstract** The research concerns the study of settlement forms for school buildings and their susceptibility to becoming public places and centres for aggregation. In particular, schools are analysed here as the set-up of a larger project of social redemption in the metropolitan suburbs. The paper analyses a possible approach to the problem in a situation in which the architectural design of space for education does not renounce the covering of a polygenetic role in the layout of the contemporary city.

**Keywords** Suburbs · Schools · Typological and figurative aspects · Education · Prototype · Marginality

## 1 Space and Figuration

According to the particular point of view of the art historian Hans Sedlmayr, a phenomenon has been underway since the middle of the eighteenth century, due to which there is a growing loss of symbolic primacy and mobilising effect, two unitary issues which were until then dominant in the landscape and in the structure of the city: the cathedral and castle-building. To these are added themes which are new, so to speak, such as rental houses, town halls, theatres, the stock exchange, parks, monuments, museums, exhibitions, schools, factories and so on. In fact, as a result of this functional and themed proliferation, as well as a certain tendency for typological perfection and, in any case, beyond Sedlmayr's spiritualistic vision—who, in this phenomenon, interpreted the beginning of the modern city's identity crisis—design

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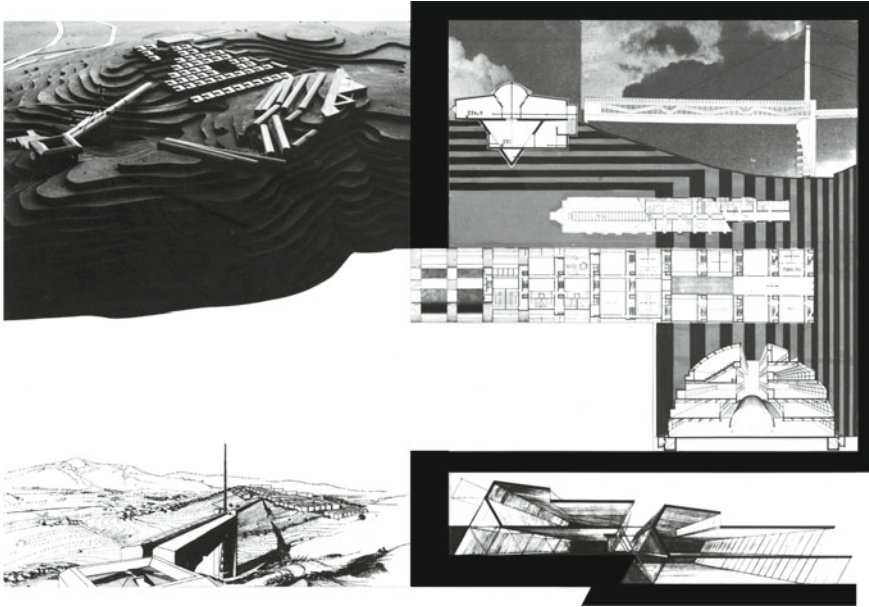
manuals take on a certain importance and also an operational consistency, tending to differentiate building types for specific requirements. Recently, specialized manuals tend to focus on the supposed infallibility of functionalist particularism, more than leveraging the constantly invoked typological flexibility. Thus, one wonders whether the “functional issue” still exists today, understood in the civil sense, as one which in place of the specialised user’s intended use, is still able to bring about instances of the continuing need for a representative characterisation of architecture (Ader 1977). The question put here forces us to consider how the propensity of contemporary architecture to adhere to the most disparate thematic opportunities, “from the spoon to the city” as would have been said in earlier times, pushes the project to be replicated at different scales, sizes and in the most diverse application contexts according to an attitude that is anything but specialised (Paoli 1960; Carbonara 1976). Yet, on closer inspection, it appears quite evident in recent times that even in architecture, themes considered reliable in the making emerge, perhaps in an allegorical sense being the most significant part of an author’s poetry: amongst these, for example, school buildings.

Thus, this text relates to unique research which, in the wake of Italian architectural tradition, has contributed to not only building an aesthetic figure but a genuine operational research on the school building facility. It deals with, for example, the extraordinary experience of reorganising educational activities which, including through university research, was exploring didactic prototypes (Petrangeli 1989) on the basis of the work tradition for which both Camillo Boito and Mario Ridolfi highlighted some resistance in comparison with the conventional adaptation to the canons, recognised in those years, of Central and Northern European experimental models (Ward 1976; Perkins 2001). Several architects have moved along these lines such as Carlo Aymonino with his experiences in Pesaro, Aldo Rossi in Broni and Fagnano Olona and Guido Canella with several experimental projects in the Milan Hinterland.<sup>1</sup>

More specifically at this stage, and also due to time constraints, it is the work of Guido Canella which is to be analysed, in particular, the issue surrounding the school facility, its typological experimentation and therefore, also the potential for the user’s behavioural induction to the school building. Certain necessary clarifications should be brought forward to clear up the misunderstandings concerning the above-mentioned functionalist particularism which in this case would suggest, given the specificity of the theme, a propensity to technical specialisation deployed to support the different conditions of the project in each case (Panizza 1989). The first issue concerns the role of physical centrality so that the work of architecture, rather than mimetically adapting to it, assumes full economic, productive, social and even representative responsibility, presenting itself as dominant and not only monumental (Pizza 2007). See, in this case, the university settlement’s role in the *Competition Project for the University of Calabria in Montalto Uffugo, Cosenza, 1973* (Fig. 1).

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<sup>1</sup>Cf. A. Christoffellis, *Nel gran teatro dell’Hinterland milanese: scuole materne come case del popolo*, in “L’architettura. Cronache e storia”, 1976, n. 252, pp. 294–307.



**Fig. 1** Guido Canella, *Competition for the University of Calabria*, Cosenza 1973

As a countertrend to a practice that was by now not only prevalent in Italian architecture and to globalism as an aesthetic figure already decreed by the most steadfast supporters of International Style, the research by Canella and his team was exploring two priority areas: first, the aesthetic and compositional values that the considered modern monuments can exercise in the functional and representative revitalisation of entire central parts of the city; secondly, the strategic and structural value that both the conversion of large industrial urban areas and the reorganisation of the urban and regional mobility's large infrastructures (rail and road networks), rather than the reorganisation and strategic reconnection of large metropolitan functions, could have played in reconfiguring the role and the overall fate, for example, of an economically depressed area like Calabria.

These assumptions had already been validated some years before in the construction of a didactic prototype system for the city of Milan and its Hinterland<sup>2</sup> which, in different research occasions, including university research, affirmed a completely overturned perspective in comparison with some trends and a homogenous and repetitive intervention practice, founded on the presumption of the possibility of an improper comparison between different urban areas in terms of nature and culture,

<sup>2</sup>See Guido Canella on this issue: *L'utopia della realtà. Un esperimento didattico sulla tipologia della scuola primaria*, De Donato, Bari 1965; *Il sistema teatrale a Milano*, Dedalo libri, Bari 1966; *Università: ragione, contesto, tipo*, Dedalo libri, Bari, 1975; *Introduzione alla cultura della città*, Clup, Milano 1981; *L'edificio pubblico per la città*, Marsilio, Venezia 1982; *Per un'idea di città*, Cluva, Venezia 1984; *L'architettura italiana oggi. Racconto di una generazione*, Laterza, Bari 1989.

for which a common illness and a unique therapy would be identifiable. This therapy, in turn, emerges in conventional intervention models, deemed to be defined once and for all and universally valid (standard, decentralisation, regeneration, settlement rebalancing, but also, according to most recent models, area projects, pedestrianised historic centres, scientific and technological research parks, turreted and reflective business centres, museum conversions of each historical building and a green belt).

Therefore, strictly from an architectural point of view, what should be noted about this Canella's campaign on the role of the building is the established relationship between induction from the behaviour of human activities and typological design which, from its unique observatory, leads to figuratively (and therefore also typologically) innovate traditional education structures, for example through organisations able to condense collective functions through a programme that anticipates new management models for the hosted activities (Noal 2001). Amongst the unfinished projects, the *New settlement of the Politecnico in Bovisa, Milan*, is highlighted in this regard, presented at the "*Le città immaginate*" (Imagined Cities) *Exhibition of the XVII Triennial of Milan, 1987* which, placed in the historic suburbs along the north-west axis of the city of Milan, tends to reverse the tendency to detachment from the historical density of the productive context of that strip of the periphery, albeit through the figurative redemption of a typological exemplary principle to regain a now lost representative prestige in the university institution (Ader 1977). It is an operation that brings together authoritative typical factors such as that of the Filarete cross of the Ospedale Maggiore in Milan, or the prototype of San Matteo in Pavia, intersecting it with the most compelling Leonardesque allegories in the recovery of existing gasometers which, by virtue of an almost exemplary method of contextualisation, tended to contain architectural representation in the wake of history and in the context of tradition to loom over the city landscape.

Moving on from projects to achievements, it is then worth highlighting the contribution of Canella's aesthetics to school buildings. A poetry that was first engaged with obstinate consistency to subvert certain standards and some architectural trends prevalent in those years which, surpassing the borders of context, function and type, was venturing onto the international scene, spreading from Europe to North America and even to countries with a strong cultural tradition, such as England, Germany and Spain, an emblematic hagiographic calibre, almost extending to the autonomy of sculptural works, when it exhausts its meaning in mere appearance (Bohigas 1997; Curtis 2002; Dudek 2000). Thus, faced with this condition, which is necessarily schematic here, what inspired the work of Canella is the line of "resistance" to globalised internationalism which had revived in certain masters of the Modern Movement, from Dudok to Duiker, Neutra to Lescaze, Sert to Lurcat, from Beaudouin and Lods to Gatepac and so on, a line of aesthetic and moral reliability to be uniquely followed in designing the architecture of the school (Boesiger 1966; Dudek 2008; Cohen 1998).

Meanwhile in Italy, in the years of reconstruction, architectural research moved from the analysis of the conditions in which they debated some of the most engaging and influential current trends—the controversial relationship with the historical and geographical context, the uncertain internal functional requirement, the ambiguous



**Fig. 2** Guido Canella, *Infant School at Novegro di Segrate, Milan 1966*

external representative result, contention between suggestions of maximum domesticity and maximum elegance—to finally recognise the most casual criticism of the adoption of atopic internationalism as frontier aesthetics, and how the works increasingly entrusted to the subjective architect–artist inspiration were the most significant. Conversely, for example, the open-air relationship experienced at the school in Suresnes was for Canella not just a technical sagacity with regard to the particular users but rather a training option, able to undermine the conventional educational experience setting to explore experimental and innovative educational models: for example, in the relationship between open and closed spaces, between light and twilight, transparency and opacity, of which the configuration of the architectural space becomes a satisfied accomplice. His fondness of “shielded” projections would perhaps be clearer: these, in fact, from the first proposals, such as the *Infant School in Novegro di Segrate, Milan 1966* (Fig. 2) imposed a special relationship between interior protected space and exterior covered space as if there were a physical extension of the classroom interacting with the extension of the Lombardy plain’s landscape. The open-air “theatres” carved as loops to resume the overhang of the outer cover through circular steps, which connected the countryside level to the school, were the custodians of this interaction between the possible attitudes of space to correspond to the needs of institutional and experimental learning.

The same applies to the “*Don Zeno Santini*” *Infant School in the Service Centre at the Incis Village, Pieve Emanuele, Milan, 1968* (Fig. 3) where, for example, the search for that fading effect which he himself would have credited to some of his masters, Terragni and Gardella in particular, looking “against the light” and what filters into the contrast between opacity and transparency, and mass and brightness. In this regard the role of the texture of the glass blocks must be considered, which, like a drapery, buffers the doorways of the reinforced concrete structure, laying bare



**Fig. 3** Guido Canella, “Don Zeno Santini” Infant School in the Services Centre at Incis Village, Pieve Emanuele, Milan 1968

each tectonic element in its absolute conclusive expressiveness,<sup>3</sup> as well as the effect of the *tholos* coverage created for the *Nursery in Gennara di Abbiategrasso, Milan 1972*. However, it is the prototype created at Opera, *Infant School with Nursery in Zerbo di Opera, Milan, 1972* that the architectural facility for infant schools finds its greatest degree of functional, expressive, typological and figurative exaltation.

Thus, for example, the theatrical dominant is not only taken allegorically, in the symbolic metaphor of the gradually descending trend to the central body, but also functionally engaging a real theatre hall within the architectural body: each of Canella’s school buildings has a theatre. The “spiral” structure of architecture takes up a theme on the central plan dear to the author. The spiral is wound around a cylinder in an intermediate position which hosts the theatre on the upper level, those of the free activities directly related to the theatre and with a ramp connected to the countryside level and to the underlying refectory. Just by looking at the creations intended for infant schools, it is possible to isolate some recurring themes which, with different accents and in each individual case, progressively from an almost embryonic state of the mass, architecture “becomes an articulated body” for a typological overlap, figurative contamination, and for linguistic separation.

These themes could be summarised in the physical centrality of the architectural body, in such a way that the work, rather than mimetically adapting to its surroundings, assumes full representative responsibility and serves as a monumental dominant; in the emblematic denotation of its figuration, which adapts to the functional versatility giving rise to two distinct landscapes, exterior and interior; in the allegorical method as a reference alluding to that identity denoting the public and collective character of the “school home”.

<sup>3</sup>Guido Canella, *Gardella in controluce*, published in F. Buzzi Ceriani (edited by), Ignazio Gardella. *Progetti e architetture 1933–1990*, Marsilio, Venice 1992, pp. 15–17.



Between research and project, Canella operates in the Milanese and Lombard context, aiming to verify, in line with strategic structural intervention programmes, how a propulsive action of architectural representation on the building is capable of generating a settlement, or at least it can guarantee a physiological balance of the new Hinterland communities, decisive, therefore, in the polygenetic dualism city—countryside, or even more, the centre—periphery in the Milan case. And in this context of Milan and Lombardy, Canella explored and brought to the fore certain distinctive constitutive traits, identifiable in the special polycentric reinforcement which distinguishes them, in which original metropolitan traits were determined at an earlier stage, attempting to isolate certain values which, in their historical persistence, constitute genuine “invariant” settlements, employed operationally as an added value to the project. Thus, in an era of globalised modelling with respect to the school building example, Canella rediscovers some prototypes against which to orientate each intervention proposal.

This is, for instance, the example of the basilica plan which, when initially tested on the *Elementary School in the Services Centre at Incis Village, Pieve Emanuele, Milan 1968–1973* (Fig. 3), assumes the entire flexibility of the typological principle underpinning the three main bodies, the transversal one as a transept and the longitudinal ones as two large lateral halls, to respectively accommodate the atrium, opening onto the large gym lowered by a staircase, the refectory, the secretariat and all the facilities; while the actual classrooms were on two different levels on the longitudinal bodies. The case of the “*Fratelli Cervi*” *Elementary School and sports field in the Mirasole Village of Noverasco di Opera* (Fig. 4) was resolved a few years later in 1974 with an analogous plan and a similar typological peremptoriness. Here, the three halls, one central and two lateral, are intended for different activities: the central chamber for the gym in continuity with the auditorium, with spaces for free activities all connected at different heights but in visual continuity with each other through the large tiered hall which, with a theatrical layout, looks onto the entire central space; the two-side chambers to the classrooms for the elementary school on both upper levels and the infant school at the bottom level, with the services, the entrance hall, the refectory and the kitchen premises. The large transept houses the



**Fig. 4** Guido Canella, “*Fratelli Cervi*” *Elementary School and the sports field in Mirasole Village of Noverasco di Opera, Milan 1974*

vertical distribution system and brings together the horizontal connections, which open with a pair of large tympana and contain the special rooms that open onto the surrounding countryside.

Finally, some reflections are presented on one last aspect which should be considered trying to illustrate how Canella sought to define an authentic interpretation of those characteristics that are consistently comparable, the reasons of civil functionality and expressive-formal reasons that are evident in some projects and works that his research takes as “certain” references. These are, for example, those experiences in the context of the construction of the modern city, which can be taken as a cognitive reference relative to the problem and to the role of the school building. Suffice it to recall, limiting this only to some of the most significant: the initiatives of industrial paternalism and municipal providence in Milan and in the Lombardy area, where services in early industrialisation (schools, hospitals, boarding schools and economical kitchens), originally using the new types of the first industrial takeoff, are presented as free cornerstones on four fronts, at the same time generating an urbanisation “for centres”; Moscovite construction workers’ clubs in the twenties, authentic “social condensers” and monuments with new forms designed to compensate for the precarious urban and housing conditions of post-revolutionary Moscow through functional and behavioural wealth and figurative representativeness; the interventions of modern architects in the municipalities of Parisian suburbs, before and during the Popular Front, where modern architectural forms become an advanced management symbol for the city, and so on. For example, the monumental isolation should be observed to which the building for the *Middle School in Monaca di Cesano Boscone in 1975* was destined, located as the fulcrum of a contentious urban condition between the original core and progressive expansion zones kept isolated from one another by social situation, ethnic background and the urban fabric’s historical development. The opportunity to place complementary activities to the school building follows a typological principle. Therefore gym and locker rooms, special classrooms, auditorium-theatre with a stage and dressing rooms and public library were located in a cylindrical building with a central floor. This body was separated from the parallel bodies of ordinary classrooms, four per each floor for a total of 24 classrooms, with stairs and corridors set in an intermediate position to connect the classrooms on all three heights to the central cylindrical body. Such a facility corresponded to involving the entire community after school hours, for example. Not surprisingly, the programme resumed some advanced hypotheses that had already been explored for the *Civic Centre with a Town Hall, School and Sports Field in Pieve Emanuele in 1971* (Fig. 5), where original typological-functional mechanisms creatively combine new patterns of behaviour and figurative innovation in an attempt to counteract the incipient territorial and cultural standardisation processes with architecture in the post-reconstruction and post-economic boom years.<sup>4</sup>

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<sup>4</sup>L. Fiori, S. Boidi (edited by), Guido Canella. *Centro Civico di Pieve Emanuele*, Editrice Abitare Segesta 1984. E. Bordogna, *Meditazioni gaddiane*, “L’architettura cronache e storia”, no. 1st January 1986, pp. 6–47.





**Fig. 5** Guido Canella, Civic Centre with a Town Hall, Middle School and Sports Field in Pieve Emanuele, Milan 1971

I believe that this concise and schematic overview of some of Guido Canella's school architecture can perhaps contribute towards rethinking the public building's role for education in the current changed structural conditions and within the same new guidelines of international architectural culture. It seems that architecture which is claimed to be quality architecture increasingly tends to disregard its structural essence and the contextual horizon it is intended for, as well as a functional term apparently considered as increasingly inert and from which the latest design culture seems to consider itself fully liberated (Fig. 6).



**Fig. 6** Guido Canella, Infant School with Nursery at Zerbo di Opera, Milan 1972

Moreover, this work on school buildings, which had proposed the goal of a design intended for the hinterland in the Milan metropolitan area, was ultimately able to adequately contend both with the promotion of new collective behaviours and with the authenticity of a figuration rooted in the metropolitan landscape.

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