The Paradoxes of Prefabrication: Politics of Construction in Vico Magistretti's Villa Arosio and Marcello D'Olivo's Villa Spezzotti

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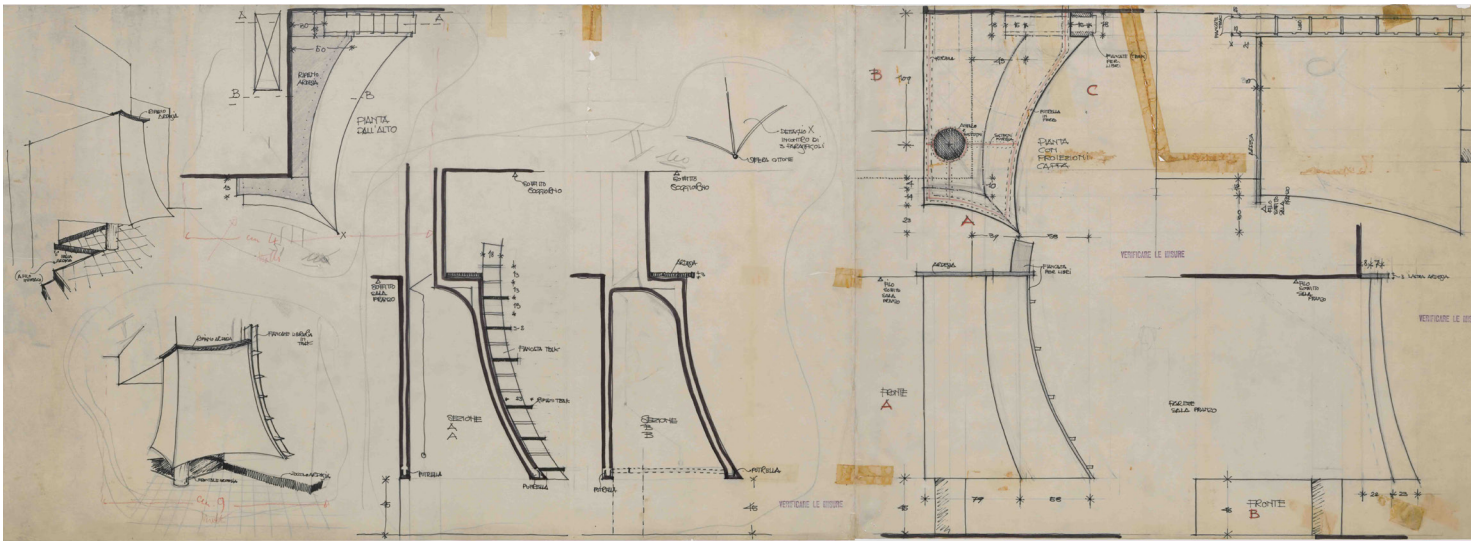


Vico Magistretti, Villa Arosio, Arenzano Pineta, 1958, fireplace sketches.
From Fondazione Vico Magistretti.

> There is a kink, between the world and the architect's idea of it. Builders inhabit that kink. […] As practitioners, the builder, the gardener, the cook, the alchemist, and the painter are not so much imposing form on matter as bringing together diverse materials and combining or redirecting their flow in the anticipation of what might emerge. […] For on the face of it, these abstract, conceptual and intangible lines could not be more different from the marks made by carpentry, drawing or embroidery, with all their vivid presence, dynamism, and tactility.[01]

With these words, Tim Ingold identifies the *textility* of making, understood as the capacity to 'inhabit' the material or the work itself through the act of creating it, as distinct from technology, which is conceived as the abstract projection of an object, a process typically undertaken by architects. This chapter explores the divide between these two concepts by engaging the paradox of prefabrication in postwar Italy. It does so by examining the tension between textility and technology through the work of two architects, identified as part of the so-called Third Generation: Vico Magistretti and Marcello D'Olivo. Practicing in the shadow of the "swan song" of the Masters, these two professionals were confronted with the legacy of the Modern Movement, discussing its meaning and attempting to question its principles after the "tradition of the new" seemed to have exhausted its momentum (in both its rationalist and organic variations)."[02]

The first part of this text is devoted to an appraisal of the debate on prefabrication through an analysis of the INA Casa project. The following two parts examine the careers of the two architects in question and their

01 Tim Ingold, "The Textility of Making," *Cambridge Journal of Economics* 34, no. 1 (2010): 94, 100. https://doi.org/10.1093/cje/bep042.
02 Marco Dezzi Bardeschi, "Il sistema urbano riequilibrante di Marcello D'Olivo," *Necropoli*, no. 9–10 (1970): 15.

respective interpretations (or lack thereof) of the principles of prefabrication, tracing their involvement from the INA Casa projects to the holiday villas they each designed. The distinct social backgrounds of Vico Magistretti and Marcello D'Olivo enrich the analysis, offering a key to understanding their relationship with the projects and on-site labor. Magistretti is noted for maintaining both a metaphorical and physical distance from the construction site and manufacturers, while D'Olivo actively engaged with every aspect of his projects. Despite their contrasting approaches to practice, their two villas ultimately epitomized the failure of on-site prefabrication, offering a key into the processes of their construction and the challenges they posed for workers on-site.

THE PREFABRICATION PARADOX

The end of the Second World War left Italy in a precarious geopolitical position within Europe. In an effort to move away from authoritarianism and prevent the country from veering towards Communism, the United States supported an extensive political campaign by the Christian Democratic Party (DC), which ultimately triumphed in the 1948 elections.[03] Under the leadership of the Christian Democratic government and supported by a substantial influx of transatlantic funds for reconstruction, Italy experienced what has been referred to as its 'first industrial revolution.'[04] Jobs multiplied, and a sense of financial well-being began to reach even the most remote and rural corners of the country. However, as Paul Ginsborg has observed, this transformation affected only certain sectors of the Italian economy, producing what he describes as a dualistic effect. He noted that on the one hand, "there was the dynamic sector, consisting of both large and small firms, with high productivity and advanced technology. On the other hand, there remained the traditional sectors of the economy, labor-intensive and with low productivity, which absorbed manpower but acted as an enormous tail to the Italian economic comet."[05] This 'tail' was embodied by the construction sector, as discussed in the following paragraphs.

In a country devastated by war, where most people still lived below the poverty line, the provision of housing became a powerful political tool for the governing party. In 1949, Prime Minister Amintore Fanfani launched a fourteen-year housing program known as the INA Casa Plan, or Fanfani Plan. The initiative aimed to rebuild the nation's housing stock and was supported by a substantial influx of transatlantic funds. However, as numerous scholars and critics have pointed out, the plan had a hidden agenda: it served as a tool for political propaganda designed to win the support of the working-class population. The fear of widespread unionization among workers or even a civil war, driven by the critical levels of poverty and the frustration and anguish of soldiers returning from the war, motivated the government to absorb as many workers as possible into the housing sector.

This strategy was interpreted years later by Manfredo Tafuri as a form of control, one characterized by various stages: "to place housing in a subordinate role relative to sluggish sectors, holding it firm to a preindustrial level and tying it to the development of small businesses; to keep stable for as long as possible a fluctuating sector of the working class that could be blackmailed but never organized; and to make public intervention a support for private intervention."[06] Contrary to Tafuri, Bruno Zevi praised

03 Anne Parmly Toxey, "Pawns or Prophets? Postwar Architects and Utopian Designs for Southern Italy," in *Atomic Dwelling: Anxiety, Domesticity, and Postwar Architecture*, ed. Robin Schuldenfrei and Anne Toxey Abingdon (New York: Routledge, 2012), 254–274.

04 Paolo Scrivano, *Building Transatlantic Italy: Architectural Dialogues with Postwar America* (London: Routledge, 2016.). See also Scrivano's "Signs of Americanization in Italian Domestic Life: Italy's Postwar Conversion to Consumerism," in *Journal of Contemporary History* 40, no. 2 (2005): 317–40.

05 Paul Ginsborg, A *History of Contemporary Italy: Society and Politics, 1943–1988*. (New York: St. Martin's Griffin, 2003), Paul Ginsborg, *A History of Contemporary Italy: Society and Politics, 1943-1988*, Penguin Books (London: Penguin Books, 2011), 216.

06 Manfredo Tafuri, *History of Italian Architecture, 1944-1985* (Cambridge, Mass: MIT Press, 1989), chap. 16.

the INA Casa project as "natural evolution of modern architecture" in comparison with the 'legalized hovels' in which most Italians had lived until then.[07] As outlined by Stephanie Zeiet Pilat, the nature of the program, a political tool of the Christian Democrats, meant that "critics and architects were rarely able to divorce its result from the politics of the day." [08] Housing construction was, or was understood at the time of its application to be, one of the most tangible and measurable indicators of progress.

In an article published in 1949 in the construction magazine *Cemento* (*Concrete*), titled "The Urban Problem of the Industrial Prefabrication of the Home," Andrea Marchetti outlined nine obstacles that needed to be addressed to achieve progress within the construction sector. Among these was the issue of a traditional 'mentality' among contractors, who continued to rely on artisanal techniques, the lack of state support in financing research centers for the development and testing of new materials, and the prevalence of 'construction hybrids' in place of advanced prefabricated products. In Marchetti's view, the industrialization of the construction sector could be achieved by "avoiding the artisanal and seasonal concepts of construction that have remained static for many years now, and not up to date with the progress of all other fields, in order to provide a more solid building."[09] The fragmentation of the construction sector was evident on multiple levels, both managerial and territorial. On the one hand, construction companies were largely small- to medium-sized family-run businesses, often of rural origin. These companies typically employed a seasonal workforce drawn from the countryside, many of whom had been displaced from agricultural work.[10] On the other hand, the absence of a comprehensive *Regolamento Edilizio* (Building Regulation) for the country, relying instead on the outdated 1942 law until the mid-1980s, meant there were no effective limitations on private speculation.

The State failed to intervene by expropriating land for public use and housing.[11] [12] Marchetti's warnings ultimately remained theoretical. Despite the fourteen-year housing plans, the millions of cubic meters of INA Casa projects constructed across the country, and the involvement of thousands of professional architects, the projects didn't contribute to a significant advancement in prefabrication techniques. This failed advancement was in line with Tafuri's predictions as to the organization of INA Casa as a government-structured project.

The architects themselves were critical of the situation. Aldo Rossi, in his first published article in 1953, demonstrated a clear awareness of the challenges. He observed that in Italy "the National Research Council has limited itself to studies concerning the prefabrication of the load-bearing structure," thereby neglecting the other elements that would later need to be infilled within the structure.[13] This practice, in his view, placed Italy in a backward position as compared to France, where Le Corbusier's Unité d'Habitation stood as a monument to prefabrication. Rossi acknowledged some progress in Italy regarding the horizontal elements of construction, specifically slab technology and the production of floors. He noted the widespread use of various types of brick in conjunction with steel beams. As a practicing professional, his insights carried weight, as when he stated, "the Italian industry has reached a very advanced stage since the first experiments following the Second World War, and the use of these slabs is more or less general."[14] His observations are supported by recent research

07 Bruno Zevi, "L'Architettura dell'INA-CASA," *L'INA-CASA al IV Congresso nazionale di Urbanistic*a, no.152 (October 1952): 12.

08 Stephanie Zeier Pilat, "The Critical Reception of Ina-Casa," in *Reconstructing Italy* (Routledge, 2014), 200.

09 A. Marchetti, "Problemi Urbanistici Della Prefabbricazione Industriale Della Casa," *Il Cemento- Rivista Tecnica Della Costruzione*, 1949, 59.. See also Paolo Nicoloso, "Genealogie del piano Fanfani 1939–1950, " in Paola Di Biagi, ed., *La grande ricostruzione : Il piano INA-Casa e l'Italia degli anni 50* (Rome: Donzelli, 2001), 33–62.

10 This notion of the agrarian reform has been discussed by Alessandro Bonanno, "Theories of the State: The Case of Land Reform in Italy, 1944-1961," *The Sociological Quarterly* 29, no. 1 (1988): 133.

11 Marchetti, "Problemi Urbanistici Della Prefabbricazione Industriale Della Casa," 82.

12 Fiorentino Sullo, *Lo scandalo urbanistico* (Florence: Vallecchi Editore, 1964).

13 Aldo Rossi, "Prefabbricazione e Architettura," *Comunità. Gionrale Mensile Di Politica e Cultura* 22 (1953): 39.

14 Rossi, "Prefabbricazione e architettura",39

conducted by Italian scholar Giorgia Predari, who analyzed the political factors behind the use of mixed construction methods—the combination of brick and concrete—in slab construction in Italy during the 1930s to the 1950s.[15] Predari argued that, in Italy, reinforced concrete was almost always paired with brick in load-bearing structures. One reason for this, she suggested, was the Fascist regime's resistance to adopting materials or technologies perceived as 'un-Italian.'This led to the development of advanced brick extrusion techniques and a reluctance to rely solely on steel bars and concrete. Earlier, Sergio Poretti had supported this perspective, identifying mixed construction as a defining feature of pre-war Italian architectural production. Poretti also highlighted how this approach contributed to the artisanal nature of INA Casa construction sites and the aesthetic of the housing projects.[16]

Some of the more than 40.000 ceramic tiles attached outside INA Casa Projects. From Luca Rocchi, "Le targhe INA-Casa. Quattordici anni di arte ceramica per l'architettura della ricostruzione post-bellica," in *Atti 46. Convegno internazionale della ceramica: Ceramica e architettura, Savona, 24–25 maggio 2013* (Albisola: Centro Ligure per la Storia della Ceramica, 2014), 285–95.

This situation was first analyzed from an engineering perspective in 1964, by Tito Bianchi, after the completion of the fourteen-year INA Casa plan. In his article, the author examined the evolution of labor in the construction sector and the role of prefabrication.[17] One of the first critical points he highlights is the high cost of labor. He observes that worker wages accounted for nearly half of the total cost of the INA Casa projects (30–45 percent), depending on the size of the house, demonstrating that the buildings were highly labor-intensive. He attributes this phenomenon to the relatively high wages of workers who were recruited either from the manufacturing sector or from agriculture. As a solution, he proposes two options: either greater mechanization of construction processes or a shift away from 'traditional materials'—here understood as mixed construction techniques. He notes that these solutions had already been successfully

15 Giorgia Predari, *I solai latero-cementizi nella costruzione moderna in Italia (1930–1950)* (Bologna: Bologna University Press, 2015).
16 Sergio Poretti, "I materiali nuovi" and "Strutture nascoste" in *Modernismi italiani: architettura e costruzione nel Novecento.* Architettura e costruzione 4, ed. Sergio Poretti (Rome: Gangemi, 2008).
17 Tito Bianchi, "L'evoluzione del lavoro edile e la prefabbricazione," *Convegno Nazionale Sull'edilizia Residenziale* 8–10 (1964): 532.

applied in large-scale infrastructural projects, such as bridges and dams. While acknowledging the initial expense of machinery, he argues that, in the long term, mechanization would lead to overall cost savings. The author offers a critical appraisal of the INA Casa program, recalling how the use of machines on construction sites was effectively forbidden. He argues that this policy was intentionally adopted to ensure that the houses were not built in the most cost-effective or efficient conditions but rather to produce 'the greatest number of jobs possible.'[18] With fourteen years of hindsight, Bianchi acknowledges that most contractors operating in 1964 had adapted to this labor-intensive model and had not been encouraged to pursue alternative approaches.

Twenty years later, Ludovico Quaroni reaffirms Bianchi's views, though acknowledging the improvements this experience brought to design standards. He argued that "the INA Casa experience meant a lot in terms of the standard of design, which undoubtedly improved considerably, but it only set the pace—which means, in a moving world, going backwards. In terms of construction technique, the latest Fanfani House was built with means identical to those with which the first one was built; in these eighteen years, the architects had enough free time to fiddle with the combinatorial tricks of 'mixed development' blocks, 'perforations and colors in the buildings that made it up.'"[19] Implicitly, Quaroni suggests that formalism became a way for architects to justify their position on industrialization:

> The modern architect does not want to take architecture out of his hands, knowing, however, that in practice he has always been far away from the political and economic building control room. […] We are also frightened, or at least I am, by the danger of a monopoly of prefabrication. […] This is the ideal of modern architecture, which wants both the rigor of a closed construction system that is as versatile as possible […] and the most unrestrained freedom to compose, with these few parts, the most diverse, newest, most exciting, unexpected, exciting and dynamic building structures.[20]

He believed this concern set architects apart from other professionals involved in building (such as technicians, politicians, and economists). His anxiety reflects the experience of the "Third Generation" of architects, a group first identified by Sigfried Giedion in the magazine *Zodiac*.[21]

As Guido Canella rephrased it, "Those most talented architects born in the vicinity of the 1920s, with few exceptions, maintained their position of relative autonomy regarding the two ideological positions of the so-called 'Cold War,' seeking refuge in a sort of vaguely libertarian, radical individualism."[22] For many architects, including those examined in this text, this radical individualism manifested in the acritical reproduction of low-tech practices, particularly in the design of single-family holiday villas. Despite the small scale of these buildings, it is argued that the level of experimentation and the unorthodox, often labor-intensive practices employed on these sites served to legitimize the role of architects, countering the threats of either disappearance or relegation to the role of mere technicians. For many architects practicing in the postwar period, the words of Enzo Paci represented the perfect cure for such an existential dilemma. This was understood by the philosopher as 'Architectural Synthesis' between the notions of permanence and emergence. As he stated, "Architectural synthesis here becomes a mediation between permanent historical needs and emerging historical needs, insofar as they particularly charac-

18 Bianchi, "L'evoluzione del lavoro", 236
19 Ludovico Quaroni, "L'architetto e L'industrializzazione edilizia," in *Rassegna di architettura e urbanistica*, no. 61–62–63 (1987): 94–96.
20 Quaroni, "L'architetto e L'industrializzazione", 94.
21 Sigfried Giedion, "Jorn Utzon and The Third Generation" in *Zodiac*, no.14 (April 1965).
22 Guido Canella, "Quella 'terza generazione' di Giedion," in *Zodiac,* no. 16 (February 1996): 15.

terize a social group and, consequently, the urbanistic construction corresponding to the social group in question."[23]

Vico Magistretti and Marcello D'Olivo approached the issue of prefabrication from both practical and critical perspectives. Magistretti found in the serial production of villas and product design a solution to his concerns, while D'Olivo engaged directly with the practicalities of the prefabrication sector. Both worked on INA Casa projects and approached the design of their holiday villas as a rejection of this practice. The rereading of the design of Villa Arosio and Villa Spezzotti through the lens of the failure of prefabrication can help identify a new understanding of these objects as mirrors of class struggle and privilege.

PRIVILEGED NETWORKS: VICO MAGISTRETTI IN MILAN

One of the key characteristics of the Third Generation of architects (those born around 1920) was the impact of the Second World War on their studies. Many were either starting or in the midst of their university years when tensions in Europe and Italy escalated. The news of Italy's armistice with the Allied forces and the subsequent actions of the German troops in Northern Italy prompted thousands of young Italians to find ways to avoid conscription into the fascist army or to escape the brutal racial deportations of the Third Reich. For those who had just enrolled in university, it was a matter of continuing their academic careers. Ludovico Magistretti, born in 1920 into a distinguished family of architects, was in his second year at the Politecnico di Milano. Survival during this time often depended on luck or status, and Magistretti's position in a privileged family became his means of survival and escape across the Alps. Neutral Switzerland had already granted asylum to Polish and French citizens throughout the conflict. In 1943, funding from the FESE (Fonds Européen de Secours aux Étudiants / European Funds for the Support of Students) was used to assist Italians fleeing the country for various reasons, including deportation, resistance, refusal to join the army, studies, and imprisonment.[24]

This operation aimed to establish several University Internment Camps across French-speaking Switzerland, taking advantage of the linguistic similarities between Italian and French, to allow asylum seekers to continue their studies. The initiative had a dual purpose for Switzerland: on one hand, it offered "moral and intellectual support" to the hosting country, and on the other, it provided "indispensable material help."[25] In fact, students were also employed in large infrastructure projects, and once repatriated, a reimbursement for the expenses incurred during their stay in Switzerland was sent to the Italian government.[26] The camps were set up in Geneva, Lausanne, Fribourg, and Neuchâtel, offering courses in faculties such as Law, Economics and Social Science, Mathematics and Physics, Medicine, Literature, Engineering, and Architecture. However, only 50 percent of the 1,140 applications were accepted. According to historian Renata Broggini, the selection process was theoretically based on a thorough oral interview covering key subjects for each faculty. In practice, however, the selection was more personal. Colonnetti, an Italian resident responsible for managing the camps, reported that decisions were made on "human grounds," stating that candidates were judged "man to man," focusing not on their knowledge but on their "desire to revive the life of the spirit after so much oppression and brutality."[27]One can speculate that eloquence and persuasive skills were valuable in this process—skills that

23 Enzo Paci, "L'applicazione del metodo industriale all'edilizia e Il problema estetico," in *La Casa.Quaderni di architettura e di critica* (INCIS) (1953): 73.
24 Renata Broggini, *Terra d'asilo. I rifugiati italiani in Svizzera, 1943-1945*, 1st ed. (Bologna: Societa editrice il Mulino, 1993).
25 Broggini. 493, quoting G. Colonnetti, "Avant-Propos," in *Bollettino del Centro studi per l'edilizia*, no. 7–8, (1945).
26 Broggini.
27 Broggini. 496, quoting G. Colonnetti, "Avant-Propos," in *Bollettino del Centro studi per l'edilizia*, no. 7–8, (1945).

Vico Magistretti likely possessed, alongside his academic qualifications. As a result, Magistretti was admitted to the Faculty of Architecture in Lausanne, alongside a small group of eighteen other young men.[28] Among them was Ernesto Nathan Rogers, who, as Salvatore Aprea and Serena Maffioletti have noted, would go on to make a significant name for himself during his period in exile.[29]

Ernesto Nathan Rogers became a key figure within the Faculty of Architecture, shaping students, including Magistretti, through a "strict and courageous mentorship." He famously stated, "This is the time to examine the things that have been done to judge them and prepare ourselves to face, purified by critics, the tasks of tomorrow."[30] For Rogers, the experience in the Lausanne camps became an opportunity to craft a renewed understanding of the architectural profession, imagining a world beyond fascism while theorizing a new relationship with history, which would develop into the notion of *preesistenze ambientali* (preexisting context). By 1943, these ideas were being formalized into a definition of architecture that sought to deepen the discipline's meaning, moving beyond rigid dogmas, instead aiming to define objectives inspired by key values, pointing towards an "eternal creative force."[31] During the year and a half Rogers spent teaching in Lausanne, at least thirty-six courses and publications were produced or planned. This initiative aimed not only to establish a network between the Italian and Swiss architectural scenes but also to prepare for the reconstruction of Italy upon their return.[32] Vico Magistretti not only completed his studies but also became involved in the vibrant editorial projects initiated by Rogers and supported by the generous funding of the university. He published articles in *L'Ordine Politico delle Comunità* and *Il Bollettino*, the journal of the University Camp in Lausanne. The latter served both as a record of the emotional and personal experiences of exile and as a platform for reflecting on the future of Italian architecture in the post-fascist era. The new coordinates of housing were defined through the evolution of building production—standardization, industrialization, and prefabrication—establishing effective relationships between Swiss and Italian operational structures. The themes of economics and technology were linked to issues of urban planning and architecture.

Following his return to Italy, Vico Magistretti opened his architecture office on Via Conservatorio, in the same building where his father, Pier Giulio, had worked before him. The network of connections forged during his Swiss sojourn, and most importantly, the strong intellectual and personal relationship with his mentor Rogers, enabled the then-twenty-five-year-old Magistretti to become an active participant in the reconstruction of Italy. In 1946, he successfully balanced a career as a practicing architect with that of an exhibition curator. His proposal, designed with fellow émigré Paolo Chessa for the atrium of Milan Triennial VIII on the House (*L'Abitazione*), which focused on the industrialization of the construction sector, was selected and implemented in the exhibition. As noted by Gabriele Neri, Magistretti's involvement extended beyond curating the atrium to providing curatorial advice for all sections of the exhibition.

Long scaffolding elements, large prints, and 1:1 prototypes were among the suggestions proposed by Magistretti to guide the audience through the exhibition.

28 The list included the following names: Berlanda Franco, Carassi Edoardo, Casé Gian Carlo, Caslini Giuseppe, Chessa Paolo, Fratino Luigi, Guffanti Antonio, Limido Luigi, Magistretti Lodovico, Mangiarotti Angelo, Manzoni Massimiliano, Mazzocchi Maurizio, Minoletti Giulio, Peroni Carlo, Ratti Ugo, Righint Mario, Rogers Ernesto, Rosselli Alberto, and Zuccoli Luigi. For the full list of all the students in the Camps, see Broggini., 649–658.

29 Salvatore Aprea and Serena Maffioletti, *Esili e Esodi | Exiles and Exoduses* (Quodlibet, 2021): 190.

30 Ernesto Nathan Rogers, "Per una coscienza dell'architettura europea," (unpublished, 1940), cit. in Serena Maffioletti, "La 'lingua parlata.' Appunti su Ernesto N. Rogers," introduction to E.N. Rogers, *Architettura e grandezza dell'uomo. Scritti 1930–1969*, edited by Serena Maffioletti, in *Il Poligrafo*, (Padova 2010): 31.

31 Ibid. 30.

32 Ibid. 28.

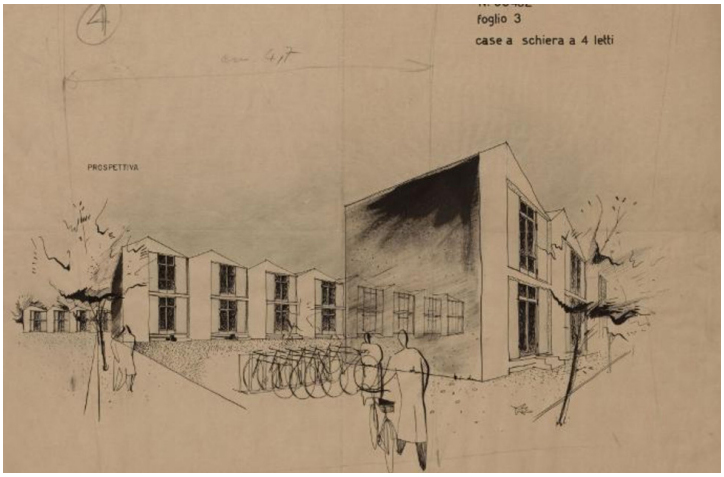
Vico Magistretti and Paolo Chessa, entry hall of VIII Triennale, L'abitazione.
'Industrializzazione nell'edilizia,' Milan, 1947.
From Archivio Triennale di Milano (TRN_VIII_02_0093).

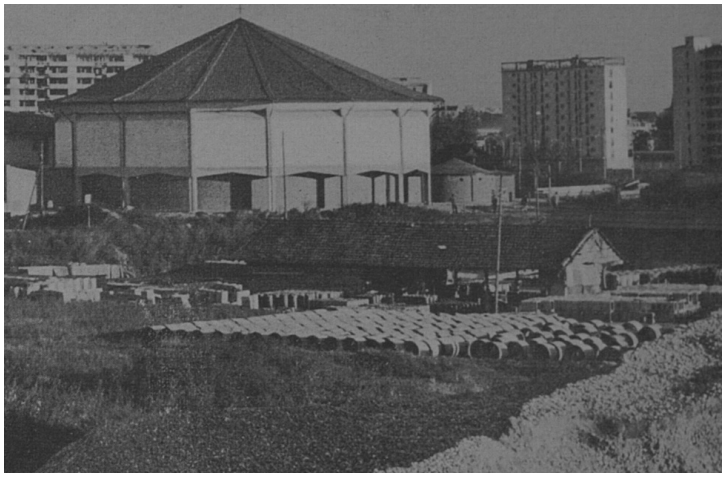
Among the postwar debates on the evolution of the construction sector in Italy, which Rogers described as "almost an architectural interpretation of existentialism," the furniture presented at the fair by Magistretti marked the beginning of his research into transforming everyday objects into design pieces.[33] This became a key focus for him alongside his work on larger-scale designs. His direct involvement in postwar reconstruction was, however, realized through the project for the Case Per Reduci/ Homes for Veterans within the experimental neighborhood QT8, which emerged from Milan Triennial VIII. QT8 was the first example of the full application of prefabrication for a residential neighborhood within the metropolitan area of Milan. The project involved architects Pietro Bottoni, Ettore Sottsass, and Gabriele Mucchi. However, the project by Magistretti, Chessa, and Tedeschi contradicted the intention for an industrialized construction sector, as it employed artisanal techniques which read clearly in its final appearance. Supported by Ministero Assistenza Postbellica, the scope of the project was reduced from the planned eleven to twenty houses. The houses were arranged in rows and designed for four-to-six people, with a total of thirty-eight units over two levels. However, only the six-person units were realized. The primary experiments, in this case, were typological rather than material.

However, the artisanal dimension typical of postwar Italian architecture is evident in the variety of openings punctuating the houses. These are recognized as a single unit thanks to their similar height and façade treatment. In this project, the concept of mixed construction, which later reappeared in the INA Casa plan, can be identified. Magistretti was one of many architects involved in INA Casa, and he was personally appointed for fourteen years. During this period, Magistretti experimented with various typologies, all of which were welfare projects mostly located in small towns across northern Italy.[34] Even when the typology deviated from residential design, as with the Church of Santa Maria Nascente in QT8, designed by Magistretti between 1953 and 1955, he maintained his innovative approach toward his projects. The church, following a central plan, is

33 See Vico Magistretti and Paolo Chessa, "Tre preventivi : tre possibilità," in *Domus* 206 (1946): 4–9.
34 Namely in Piacenza, Morbegno, Chiavenna, Odolo, Lissone, Somma Lombarda, Como, Cinisello Balsamo, and San Zeno Naviglio.

formed by two crossing circles. The structure is supported by sixteen pillars, each holding beams that support the brick roof structure, reinforced by a concrete ring. The brick layering is only visible in certain parts of the church, with timber cladding in others. Externally, the church is entirely covered in white plaster, giving it an almost abstract appearance.





Left: Vico Magistretti, Case Per Reduci, in QT8, Milan, 1948. From Fondazione Vico Magistretti.
Right: Vico Magistretti, Case a Piacenza and Chiesa in QT8, Milan, 1953. From "La Linea Lombarda."

The tension in what Poretti defined as the 'mixed structure' is evident in the Case di Abitazione a Piacenza/Dwellings in Piacenza (1949), designed in collaboration with Vittorio Gandolfi, Carlo Pagani, and Mario Trevarotto, and in the INA Casa project in Somma Lombarda. In Piacenza, the use of masonry for the structure and hand-hammered concrete for the façade ties the building to the artisanal construction process. The windows are framed in timber, and the double-pitched roof is clad in traditional tiles. Similarly, the INA Casa project in Somma Lombarda (1951) features bespoke details, such as the hammered concrete skirting around the building's perimeter and the recessed timber handrail for the balconies. As with most INA Casa projects of this period, the materiality of the structure is concealed, with rough plasterboard finishes and black-and-white terrazzo tiles framing the openings.

Although Magistretti incorporated elements of prefabrication in his buildings, such as the curtain wall in the Corso Europa building (1955–57) and later projects like the Gallaratese District and Via Celoria in the sixties and seventies, his stance on industrialization remained ambivalent. As Magistretti stated in 1946 while curating Triennial VIII, "It is feared by many that the industrialization of construction leads inevitably to an intolerable uniformity and rigidity of the home. There is no reason for this fear because an industrialization of the building industry is only valid and acceptable insofar as it takes into account all the material and spiritual needs of man. It must be based on the equality of human needs where variation is nothing more than a conventional vice, but must respect the diversity of human needs here; this diversity is a function of a free physical and spiritual life."[35] Magistretti reinterpreted the notion of Paci's theories and the prefabrication debate, leading him to advocate for a new kind of architecture that validated and legitimized the architect's role in the process.

Magistretti's work, along with that of other Milanese architects of his generation, came to define what is known as *Milanesità* (Milan-ism) or,

35 Translated by Gabriele Neri in *Magistretti. Architetto Milanese* (Electa, 2021), 60. Originally from the catalog of Milan Triennial VIII (1946), 93.

as Renato Pedio suggested, a 'Lombardy trajectory.'[36] This was the generation of architects that Vittorio Gregotti characterized as that "line of Milanese architects [that] proceeds directly from a common taste for the nobly reserved object, built with great constancy of inspiration and serious craftsmanship, the goal of which is to look as if it has already been; an object destined, more than to emphasize a new form, to establish a general tone, to express a balance of values, referring perhaps to a past that has been irremediably lost or perhaps to a future yet to be conquered. This has often made people speak of them as the heirs of a Milanese cultural tradition of the turn of the century, of a taste that had become, at the time, the common custom of an entire society that found expressed in it the values that most often belonged to [the society itself]."[37] This notion can be applied to Magistretti and his peers, including exiles or students in Ernesto Nathan Rogers's network. As Bruno Zevi noted, while cities like Turin, Venice, Bologna, and Palermo embraced the organicist approach, Milan remained faithful to an abstract 'continuity' that soon disintegrated, exemplified by the formation of the MSA (Movimento Studi Architettura), founded at the Polytechnic University of Milan.[38][39]

Most of the architects influenced directly or not by the personal experiences of exile found in the MSA (aesthetic and conceptual opposites to the Organicist APAO), including Magistretti, were immersed in the industrialized north of Italy. Several factors contributed to Magistretti's success, as identified by Vanni Pasca in *L'Eleganza della Ragione*: the industrialization of construction, improvements in living standards, and the growing expansion of consumer culture. Additionally, the transformation of furniture manufacturing from craft to industry and the architectural intelligentsia's newfound interest in home décor and furniture played a key role.[40] Magistretti's approach embodied the understated elegance of Lombardy's bourgeoisie, influenced by postwar Americanism and the notion of restraint: "A tiny bit of understatement is needed," as he put it. This, as Mari Teresa Feraboli notes, aligns with "the Lombard culture of getting on with it."[41], [42]During his brief experience in Switzerland, Magistretti came into contact with figures who shaped the Italy of the postwar period, such as Luigi Einaudi, Amintore Fanfani, Adriano Olivetti, and Franco Levi. For Magistretti, the holiday villa became a testing ground where he could experiment with elements from large-scale housing projects while reflecting on the scale of furniture. It also served as a means of legitimizing his role as an architect, especially for a class of industrialists who needed this type of figure. As Magistretti declared, he purposely decided to dedicate himself to private commissions and product design after the INA Casa experience, and Villa Arosio represented the synthesis between these two worlds.

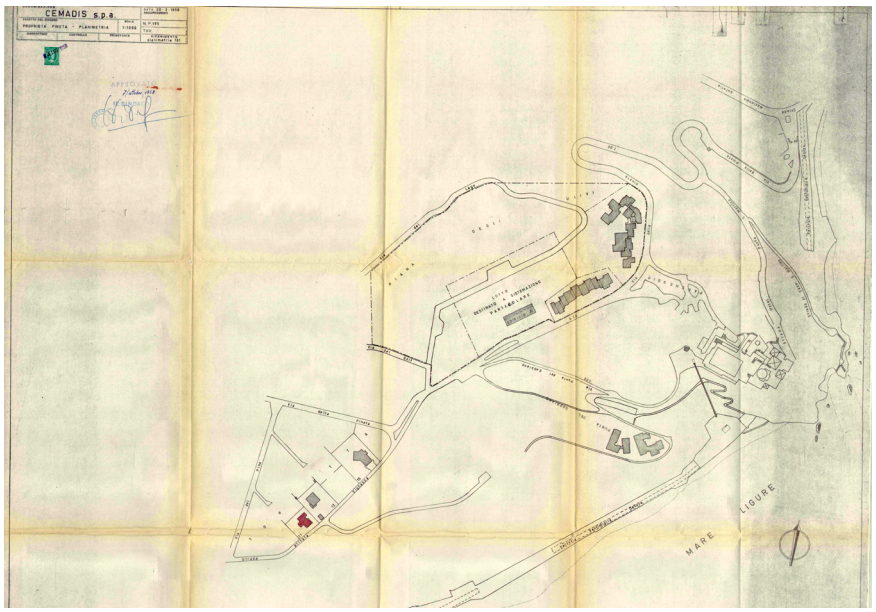
CRAFTING CLASS: VILLA AROSIO IN ARENZANO PINETA

Paolo Arosio met Vico Magistretti in 1945 while spending eight months at the University Camp of Lausanne, where he attended the Faculty of Engineering. Although Arosio came from a similar social background to Magistretti, he arrived at the university three years later. This delay was due to his earlier military enrollment, which he left following the upheaval caused by the Armistice. After a period in hiding, he eventually sought refuge in Engadin, joining thousands of asylum seekers admitted by the Helvetic Confederation at the time. In Arosio's autobiographical

36 Renato Pedio, "Linea lombarda: opere di Vico Magistretti," *L'architettura. Cronache e Storia* 57 (1960), 151–164.
37 Vittorio Gregotti, "Un centro ricreativo in Lombardia dell'architetto Vico Magistretti," *Casabella* 213 (1956), 33.
38 E. Bordogna, "Intervista a B. Zevi," *Zodiac*, February 16, 1996, 83.
39 On the MSA, see Matilde Baffa, *Il Movimento di studi per l'architettura: 1945–1961* (Milan: Laterza, 1995).
40 Vanni Pasca, Italo Lupi, and Vico Magistretti, *Vico Magistretti: Designer. L'Eleganza della ragione* (New York: Rizzoli, 1991).
41 Pagliero, "Architettura come rappresentazione. A colloquio con Vico Magistretti, Uno dei creatori dell'Italian Style," in *Casa Oggi* (1988): 18–29.
42 Maria Teresa Feraboli, "I maestri del Design. Vico Magistretti," in *Il Sole 24 Ore: Collana I maestri del Design*, Andrea Branzi, ed. (2011): 4.

account, published nearly forty years later, we gain further insights into his connection with Magistretti.[43] Both belonged to what Vanni Pasca described as the *nuova borghesia urbana*—a generation whose studies were interrupted by the war but for whom postwar Milanese industrialization offered a chance to reclaim their social privilege or build their careers within a robust new network of professionals. In *Perché le nostre case*, Arosio provides a compelling testimony of his family's history and their engagement with architecture. The account chronicles the construction of numerous buildings during Arosio's lifetime, including three designed by Magistretti, who became the family's trusted architect.[44]

The first project for which Paolo Arosio appointed Vico Magistretti was a seaside holiday villa near Genoa, located on a cape above the town of Arenzano, known as Capo Pannaggi. The site, a large pine grove, was originally part of the nineteenth-century gardens of Palazzo Pallavicini, later becoming a resource hub managed by local farmers until the Second World War. During the war, Capo Pannaggi, originally a Mediterranean forest dotted with rural homes and dirt roads designed by architect Luigi Rovelli, played a vital role in Arenzano's survival. Its trees and heather were used for firewood, cooking, and salt production, essential for trade. After the war, the barren landscape began to regenerate, eventually restoring the pine grove.[45] Despite efforts by Marquise Matilde Giustiniani to preserve the area as a natural resource, the Società Cemadis (*Centri Marittimi di Soggiorno* or Seaside Residential Center) was formed to transform the area, renamed Arenzano Pineta, into a holiday destination for upper-class families from northern Italy's industrial cities. This transformation was facilitated by the opening of the motorway in 1954, a significant postwar infrastructure project that connected Arenzano to Genoa and Milan, making the Ligurian Riviera easily accessible to city dwellers.



Vico Magistretti et. al, masterplan of Arenzano Pineta, Arenzano (Genoa), 1955.
From Fondazione Vico Magistretti

43 Paolo Arosio, *Due anni che hanno segnato una vita* (Milan: Lucini Libri, 2012), 44.
44 Paolo Arosio, *Perché le nostre case* (Milan: Lucini Libri, 1999)
45 Marco Franzone, Gerolamo Patrone, and Fillippo Romano, *La Pineta di Arenzano : architettura e paesaggio* (Milan: Skira, 2010), 11–12.

The company was a collaboration between heirs of the aristocratic family that owned the land and Ambrogio Gadola, a contractor heading a medium-sized construction firm. Gadola, responsible for both construction and administration, was appointed president of the Società. The aim of Cemadis was to introduce a holiday lifestyle tailored to the Milanese middle class within this unspoilt coastal territory. To achieve this, Cemadis commissioned a group of renowned Milanese architects—including Marco Zanuso, Gio Ponti, Luigi Caccia Dominioni, Ignazio Gardella, and Vico Magistretti—to develop a master plan for the area, renamed Arenzano Pineta (Arenzano Pinegrove).[46]

The plan encompassed villas, hotels, sports facilities, and services, totalling 1,197,000 cubic metres of construction, with a projected population of 17,000. Approximately 29 hectares, or one-fifth of the total area, were designated as protected zones featuring indigenous vegetation, often situated 70 meters above sea level. Cemadis, acting as both developer and construction company, carried out inspections at various stages of building, with no involvement from public authorities or the state during planning or construction. The development was formalized through a *Piano di Lottizzazione* (parceling plan), a tool used by developers to speculate on land with the cooperation of regional authorities; an approved plan required completion within ten years. In most cases, Cemadis itself built the projects, often partnering with local companies, before selling them. Cemadis retained full control: anyone wishing to build in the Pineta needed its permission. Thus, the company simultaneously functioned as the landowner, developer, evaluator of project quality, and administrator of services. Under the leadership of its architects, Cemadis demonstrated foresight by collaborating with local construction companies, such as Mario Valle and Cooperativa Popolare Edilizia.[47] Franzone argued that by leveraging the techniques and expertise of skilled local workers, the development achieved impressive architectural results. For this reason, the entire development received coverage in major architectural journals and was framed by Rogers's concept of *Homo Additus Naturae*.[48]

Comparisons have been drawn between Pineta and projects like Sagaponac, questioning whether such developments reflected thoughtful planning or speculative profit-making.[49] However, it can be argued that the territorial parceling, although centralized under Cemadis management, ultimately became a model to emulate. This approach effectively supported and encouraged the continued reliance on small to medium-sized firms employed by private speculators. Marchetti identified this reliance, compounded by chaotic planning laws, as a major barrier to the industrialization of construction. He attributed the issue to 'planimetric contortions' caused by irregular land parcels, legal easements, or conflicting property rights.[50] This often resulted in collective detriment due to the absence of regulations mandating boundary rectifications or coordinated building zones. The villas of Arenzano Pineta exemplifies this challenge.

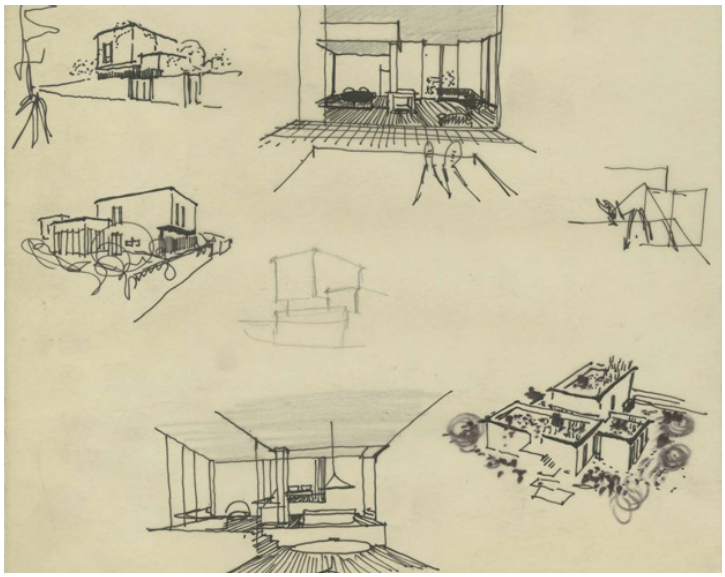
46 For a full list of the architects who designed within the Pienta di Arenzano, refer to Marco Franzone, *La Pineta di Arenzano*, 43–118; and Franco, Giovanna, Massimo Armellino, and Stefano Francesco Musso, *Architetture in Liguria dopo il 1945* (Genova: De Ferrari, 2016), 250–258.

47 Marco Franzone, *La Pineta di Arenzano, 14.*

48 For a definition of this concept refer to E. N. Rogers, "Homo Additus Naturae," in *Casabella Continuità* 283, (1964): 3.

49 Maria Giulia Zunino, edited by Barbara Ducoté, "Case al mare. da Arenzano a Sagaponac," *Abitare* 432 (2003): 404–411.

50 Marchetti, "Problemi Urbanistici Della Prefabbricazione Industriale Della Casa," 59.57–83.



Left: Vico Magistretti, Villa Arosio, Arenzano Pineta, 1958, models photographs. Courtesy of Arosio Family.
Right: Vico Magistretti, Villa Arosio, Arenzano Pineta, 1958, interior sketches. From Fondazione Magistretti.

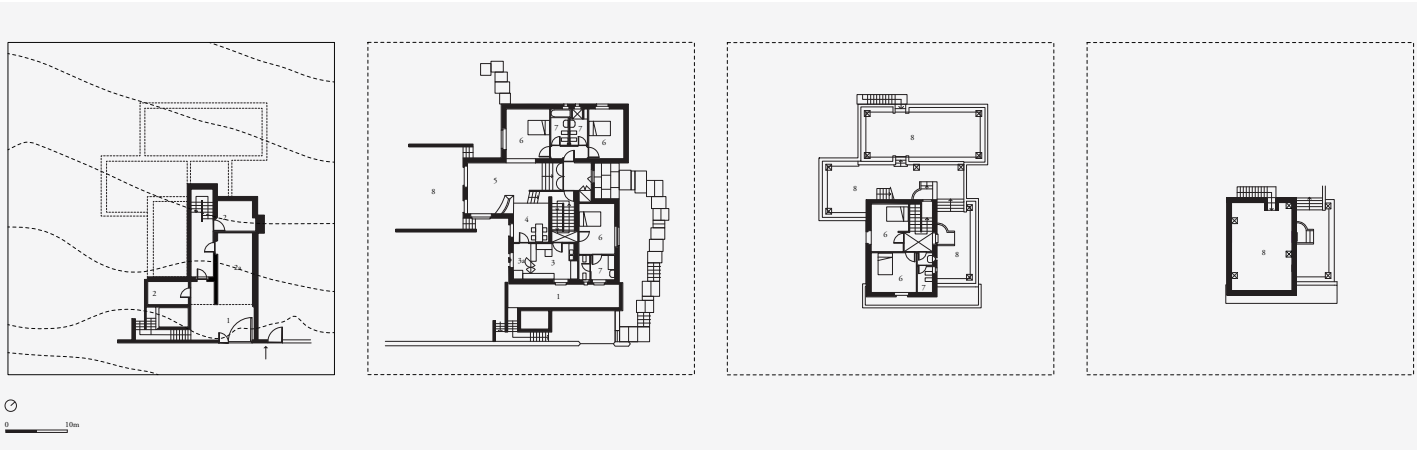
The inaccessibility of the Cemadis archive is viewed here as an opportunity to closely examine Villa Arosio, highlighting its typological solutions and architectural details that exemplify the contractor's artisanal approach. Villa Arosio was the first villa built within the Pineta di Arenzano, serving as the foundation for both the development and for Vico Magistretti's career as an architect, shaping the leisurely lifestyle of the Milanese middle and upper class. The project involved Ambrogio Gadola's construction company, under his leadership as president of Cemadis, with Otello Celadon as the contractor. Although no records or photographs document the workers involved, it can be inferred that the participation of small- to medium-sized, family-run enterprises imbued the site with an artisanal approach. Marchetti, in 1964, almost ten years after the construction of Villa Arosio, described the type of work which would have included the applications of machines; however, he argued that "You cannot machine a wall, you cannot machine a door or window frame." Such a limit, he continues, "could not give decisive economic results, because if it could almost be reached by our few most important companies, it could not, on the other hand, be approached by the small and medium-sized companies that make up the vast majority of our productive structure in the construction field. And this was not due to the inability or malice of the companies themselves, but because more intense mechanization was hindered by the setting of public works, which in Italy, are those that have always set the 'tone' for private works."[51] A review of Magistretti's initial sketches reveals the challenging nature of the project, prompting a reflection on how the overarching vision was realized through a sequence of tasks performed with rudimentary machinery.

The Ligurian coastline required exceptional skill due to the steepness of the terrain. The plot for Villa Arosio, measuring 30-by-30 meters, had a particularly steep incline. Magistretti once remarked, "You do more miles at home than by car," a statement that holds true for Villa Arosio, where multiple staircases connect the building's many levels.[52] The house's massing is defined by the functional separation of three distinct volumes across three levels to maximize the space and allow uninterrupted views. The entrance sits at an intermediary level between the second and third floors. The first level houses the service and kitchen areas, and the second level

51 Tito Bianchi, "L'evoluzione Del Lavoro Edile," 535. For a more visual reference, see Vittorio Zignoli, *Il Cantiere Edile – Organizzazione razionale, progetto, esercizio, costi* (Milan: Höepli, 1957).

52 Nella Zanotti, "A scuola dall'architetto Magistretti," in *Il Piacere* (1986.): 70.

contains the dining and living spaces. These are conceptually separated by a few steps from three double-bedrooms of almost equal dimensions connected to en-suite bathrooms. Two more double-bedrooms are located on a separate third level. Each volume's roof features a garden terrace, created using the soil excavated during construction, accessible by external steps at almost every level of the house.



Vico Magistretti, Villa Arosio plans. Redrawn by the author.
From Roberto Aloi "Casa Arosio nella Pineta di Arenzano" in *Ville nel Mondo* (Milan: Höepli, 1962), 230.
Key: 1. Entrances; 2. Storage Spaces; 2a. Garage; 3. Kitchen; 3a Pantry: 4. Dining Area; 5. Living Area; 6. Bedrooms; 7. Bathrooms; 8. Terraces

In addition to the typological aspect previously looked at, Villa Arosio epitomizes the rejection of prefabrication in terms of material choices and composition. Its vertical elements are constructed from bricks rendered with white plaster and glass powder, giving the house a translucent quality. The horizontal floor elements are made of hollow reinforced concrete tiles. Dark slate details the door sills and step copings, creating a striking contrast with the house's white façade. The only visible prefabricated components are the precast concrete steps at the rear, leading to the roof terrace. Magistretti aimed to evoke the character of traditional Ligurian villages, a quality most evident in the varied windows punctuating each façade, a nod to Ernesto Nathan Rogers's principle of *preesistenze ambientali*.[53] This trope was experimented with for the first time in the INA Casa project and then repeated in other typologies, too. The windows, crafted from pitch pine and red-painted larch shutters, became an iconic and identifiable element of this building. This distinctive feature brought Villa Arosio international resonance at the 1959 CIAM conference in Otterlo.

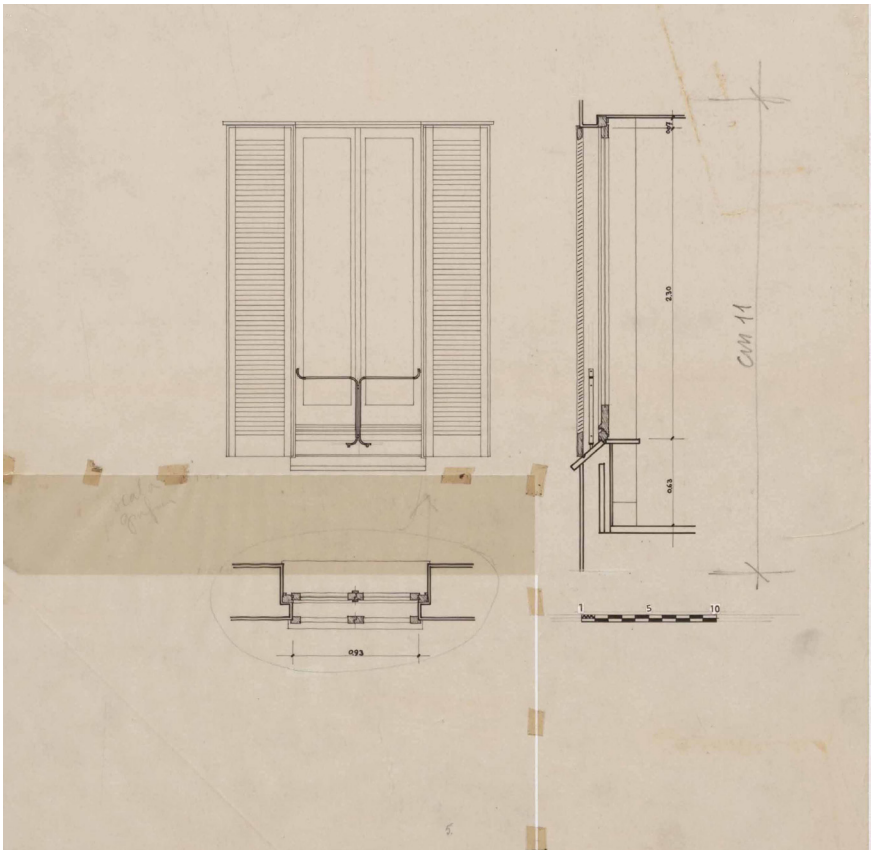
Villa Arosio and its architect, Magistretti, were, in fact, selected by Ernesto Nathan Rogers, alongside Gardella's Mensa Olivetti in Ivrea, BBPR's Torre Velasca, and De Carlo's Case a Matera, to represent Italy in Otterlo.Fulvio Irace observed that Rogers strategically selected Magistretti, who was perceived as "less hostile to rationalism."[54] The previously mentioned red-painted wooden shutters became a focal point of contention, described as the "murder weapon" in the debate, which went on to prompt a reaction from the international community after the event.[55] Viewed as an open nod to historicism, they were criticized as anachronistic and unacceptable by the CIAM board. Villa Arosio, along with the

53 Refer to Chapter 1 of the thesis and to Ernesto Nathan Rogers, "Le preesistenze ambientali e i temi pratici contemporanei," in *Casabella Continuità* no. 204 (1954): 5.

54 For literature on the CIAM Otterlo, refer to Oscar Newman, *CIAM '59 in Otterlo* (A. Tiranti Limited, 1961); and Ernesto Nathan Rogers, "I Ciam al Museo," in *Casabella Continuità* no. 232 (1959): 2–3.

55 See the back-and-forth between Banham and Rogers, in Reyner Banham, "Neoliberty, the Italian Retreat from Modern Architecture," in *The Architectural Review,* no.747 (1959): 231–235; and Ernesto Nathan Rogers, "L'evoluzione dell'architettura. Risposta al custode dei frigidaries," in *Casabella Continuità* no. 228 (1959).

other selected buildings, symbolized the end of the Modern movement and the ambiguous direction of postwar Italian architecture—a topic widely debated by leading critics in prominent architectural journals.[56]



Vico Magistretti, Villa Arosio, Arenzano Pineta, 1958, window and shutter sketches.
From Fondazione Vico Magistretti

However, the media attention surrounding this villa acted as a sounding chamber for Magistretti. Photographed by Giorgio Casali and extensively featured in leading Italian architectural magazines, Villa Arosio served as a catalyst for the architect's career. He went on to design two additional holiday villas for the Arosio family and secured numerous similar commissions thereafter.[57] Villa Arosio also marks the point at which Magistretti's career as a product designer truly took off. In this building, in fact, he experimented with bespoke interior furnishing solutions, like foldable tables and the iconic handmade plastered fireplace. From Villa Arosio onwards, he fully embraced design to represent and serve his own social class through the design of villas and everyday objects. The repetition of prefabricated objects that Magistretti designed throughout his career, widely published and well known, can be seen as a way of sublimating the limitations of prefabrication in architecture through objects. His collaborations with manufacturers like Cassina allowed him to reach the *grande numero* (large number i.e. the masses), something he was unable to achieve within the constraints of postwar Italy's architectural profession.

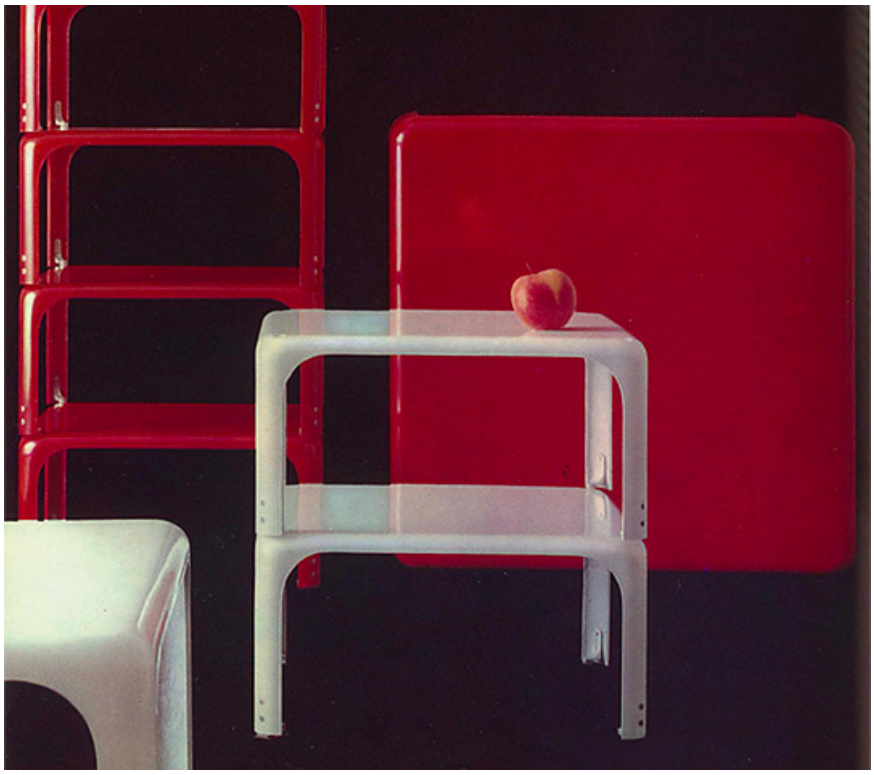
56 See Ernesto Nathan Rogers, "Vico Magistretti. Casa Arosio Nella Pineta Di Arenzano," in *Casabella* no. 234 (1959): 4–11; Vico Magistretti, "Casa Nella Pineta, Ad Arenzano," *Domus* no. 363 (1960): 11–28. See also: Roberto Aloi, "Casa Arosio nella Pineta di Arenzano," in *Ville in Italia* (Milan: Höepli, 1960), 185–192; Roberto Aloi, "Casa Arosio nella Pineta di Arenzano," in *Ville nel Mondo* (Milan: Höepli, 1962), 227–235; Marco Dezzi Bardeschi, *Villas Italiennes d'aujourd'hui* (Milan: Görlich, 1966), 143–148; and Roberto Aloi, "Casa Arosio nella Pineta di Arenzano," in *Ville Italiane d'oggi* (Milan: Höepli, 1967), 144–149.

57 Refer to Fondazione Magistretti for the digitalised list of holiday villas built by the architect.

Left: Vico Magistretti, Villa Arosio, Arenzano Pineta, 1958, street view.
Top Right: Vico Magistretti, Villa Arosio, Arenzano Pineta, 1958, side view.
Central Right: Vico Magistretti, Villa Arosio, Arenzano Pineta, 1958, back view.
Bottom Right: Vico Magistretti, Villa Arosio, Arenzano Pineta, 1958, upper roof terrace.
Photos by the author, 2023.

Through what he called his 'sketching by phone' process, Magistretti was able to control and refine projects in close collaboration with the industry—something impossible in architecture. Through objects, he expressed the idea of 'repeatability, not uniqueness,' a concept at odds with the architecture of his time. While the design of products like the Carimate chair drew inspiration from architecture, there was a risk, as Tafuri noted "on major methodological problems, such as the industrialization of the building trade, which are the only themes that would allow design to develop within a wider context of social aims."[58]

58 Manfredo Tafuri, "Design and Technological Utopia," in Emilio Ambasz, Italy: The New Domestic Landscape (Florence: Museum of Modern Art, 1972), 393.



Vico Magistretti, Demetrio Table, Milan, 1964.
From Giuliana Gramigna, "Coerenza nel Design di Vico Magistretti,"
Ottagono, no.1 (1996): 54.

Magistretti's practice can be interpreted as the epitome of the crisis facing the architectural profession, a crisis he internalized, as argued in *La Forma della Funzione*.[59]The crisis of prefabrication in the construction industry is reflected in the hundreds of products (numbering 150–200) he designed for brands, of which at least 25 percent are still in production today.[60]

MARCELLO D'OLIVO AND THE CONSTRUCTION INDUSTRY

In a 1985 interview, a few years before his death, architect Marcello D'Olivo recalled visiting the QT8 neighborhood in Milan during Le Corbusier's visit organized by Ernesto Nathan Rogers in 1952. Accompanied by his mentor, engineer Leonardo Sinisgalli, the thirty-two-year-old D'Olivo remembered the Swiss master's blunt words cutting through the cold, foggy Milanese morning: "Ce n'est pas de architecture, c'est de la merde."[61] D'Olivo described this moment as an epiphany that led him to question the reverence often placed on 'masters' like Le Corbusier, especially in the context of Rogers's veneration. Unlike Magistretti, whose studies were interrupted by the war but who was able to escape to Switzerland, D'Olivo's wartime experiences were shaped by chance rather than privilege. Like Magistretti, the course of his studies was abruptly interrupted by the war, but unlike the bourgeois Milanese architect, he couldn't leave for Switzerland. In 1943, he narrowly escaped deportation to Germany by jumping off a train. This fortunate escape proved pivotal, as a few months later, D'Olivo decided to study architecture. His meeting with Raimondo D'Aronco was particularly influential.

59 See "La Forma Della Funzione" Design Habitat (Settembre-Ottobre 1973).
60 Silvia Mascheroni, Rosanna Pavoni, and Fondazione studio museo Vico Magistretti, *Hai anche tu un Magistretti? il mio Magistretti = Do you have a Magistretti too? my Magistretti* (Milan: Corraini Edizioni, 2013).
61 "This is not architecture; this is shit." M. Fuksas and D. Mandrelli, "Un entretien avec Marcello D'Olivo," *L'Architecture D'aujourhui* no. 239 (June 1985): 50.

D'Aronco gifted him Vitruvius's manual and, more importantly, encouraged him to master the essential skills of drawing and calculation. D'Olivo later identified Renaissance architect Giuliano da Sangallo and modern Italian engineer Riccardo Morandi as his two key reference figures.[62]

Being the first in his family to attend university was seen by D'Olivo as a privilege. As Teseo Furlani reconstructed, "Unlike most students, he would cycle from Udine to Venice, sleeping on boats at night to avoid the commute back, skipping meals at times and eventually becoming a specialist in the calculation of reinforced concrete structures." [63] D'Olivo's fascination with structures, combined with the need to support himself, meant that from a young age—and throughout his career—he worked in small to medium firms calculating the performance of reinforced concrete. Even after graduating, he famously stated, "I am not an intellectual […] rather a builder. I want to build; you can do the critique."[64] This earned him the nickname *Architetto Contadino* (Peasant Architect), coined by Bruno Zevi, who became one of his key supporters. One might speculate that Le Corbusier's harsh words lingered in his mind, as D'Olivo was acutely aware of Italy's technological limitations in prefabrication as compared to France.[65] By the time of their encounter, D'Olivo had already completed several noteworthy projects, becoming one of the many architects involved in the INA Casa program. Like Magistretti, one of his earliest works was the design of an exhibition with two university friends, Edoardo Belgrado and Adelsi Bulfoni, in Udine. At the time, the small provincial city was undergoing a building boom, with over a thousand housing units constructed between 1947 and 1950.[66]

Studio D.B.B (D'Olivo, Belgrado, Bulfoni), INA Casa in Buja, 1951.
From Luppi, Nicoloso, Ferruccio Luppi, "Uno stand espositivo, Il primo progetto di Marcello D'Olivo e l'attività del progettista dal 1948 al 1952,"
Rassegna Tecnica no.2 (1998): 30.

Seizing the opportunity, the trio founded the studio DBB, named after their initials, and were appointed state architects for several housing projects. Among these, the Fanfani housing development in Buja stands out as particularly significant. The project is comprised of seven types of family housing blocks. As Ferruccio Luppi and Paolo Nicoloso noted in *Il pia-*

62 Fuksas and Mandrelli, 49.
63 Paraphrased from Furlani Teseo, "Quattro Progetti Di Marcello D'Olivo. Una Libera Comunità Giovanile" 47 (1953): 33.
64 Bruno Zevi, "Marcello D'Olivo. Architetto Contadino. Villaggio del Fanciullo a Trieste," *Cronache Di Architettura* 166, no. II 73/190 (1971): 412–15. The notion of the Architetto Contadino (peasant architect) was first theorized by Roberto Pane. See: Roberto Pane, *Architettura rurale campana* (Florence: 1936), 5–17.
65 Refer to Bianchi, "L'evoluzione del lavoro edile."
66 Ferruccio Luppi, "Uno Stand Espositivo, Il Primo Progetto Di Marcello D'Olivo é L'attivita Del Progettista Dal 1948 al 1952," *Rassegna Tecnica 2-1998*, 1998, 30.

no Fanfani in Friuli, D'Olivo sought to challenge the typical INA Casa approach influenced by the concept of *preesistenze ambientali*.[67] He controversially argued that there was no architectural tradition in the area, a claim he supported by presenting a photograph of the context. The houses, elevated on stilts, are arranged as a row but are spaced apart, appearing to follow a subtle geometric pattern that integrates with the landscape.

Without the pitched roof, these houses might have seemed an anomaly within the INA Casa portfolio, blending organic architecture with Frank Lloyd Wright's teachings.[68] Udine's proximity to Trieste—then partially occupied by a NATO base—meant that American language and culture influenced the region's architectural landscape. The assimilation of American organic architecture began with the translation of key texts, the 1951 Palazzo Pitti exhibition, and Zevi's works such as *Manuale dell'Architetto* and *Verso un'Architettura Organica*.[69] As Luppi argued, the "architecture of democracy, advocated by the Association for Organic Architecture (APAO), was spread through the pages of *Metron* and exhibited in Udine, in the Loggia del Lionello, in May 1948. Rogers and Samonà will be remembered as the generation that believed in a renewal of the profession and in the utopia of an architecture at the service of society."[70] The INA Casa project in Buja garnered significant attention, drawing comparisons to Le Corbusier's experiments and Italian projects such as De Carlo's La Martella and Quaroni's INA Casa Tiburtino. At just 31, D'Olivo won the competition for the design of the Villaggio del Fanciullo, which kept him busy for six years, during which he was challenged by the question of prefabrication in architecture.

The idea of building a facility in Italy for the rehabilitation and reintegration of orphans was conceived by Father Mario Shirza during a visit to the United States. Invited to speak about the impact of Trieste's occupation on war orphans, Shirza met Monsignor John Patrick Carroll-Abbing, a protégé of Father Edward J. Flanagan and the founder of Boys' Town, in Omaha, Nebraska, founded in 1917. This American project inspired the Italian initiative, which secured a mix of Italian and transatlantic funding for its realization. Shirza and Furlani envisioned the Villaggio del Fanciullo as a fusion of pedagogy and architecture, embodying freedom and democracy. Influenced by Frank Lloyd Wright, whom Shirza personally met in 1951 at Florence's Palazzo Ducale (an event also attended by D'Olivo and Belgrado), the master plan drew inspiration from both the Swiss Pestalozzi village in Trogen and the team's prior experience designing the nearby Educandato Femminile Gesù Bambino in Trieste.[71] Shirza and Teseo Furlani organized the project team, commissioning Studio DBB for architectural work. D'Olivo was tasked with refurbishing and expanding the first structure, a 1920s villa. The master plan featured distinct buildings for various functions, including a canteen, a central pavilion, a church, a typography workshop, and offices. Despite their varied shapes, the buildings maintained a cohesive design centered on a main square. Beyond this central hub, square residential blocks were arranged diagonally towards the canteen. For construction, D'Olivo collaborated with engineer Zorzi, who specialized in prefabricated concrete, and the Ursella family of builders from Buja.

67 Ferruccio Luppi and Paolo Nicoloso, *Il Piano Fanfani in Friuli: storia e architettura dell'INA*-casa (Pasian di Prato: Leonardo, 2001).

68 See Maristella Casciato, "Five. Wright and Italy: The Promise of Organic Architecture," in *Frank Lloyd Wright: Europe and Beyond*, edited by Anthony Alofsin (University of California Press, 2023), 76–99, https://doi.org/10.1525/9780520341463-006.

69 Numerous books have been written on the border issue affecting the city of Trieste, located between Italy and ex-Yugoslavia. In English, refer to Glenda Sluga, *The Problem of Trieste and the Italo-Yugoslav Border: Difference, Identity, and Sovereignty in Twentieth Century Europe* (New York: State University of New York Press, 2001).

70 Ferruccio Luppi, "Uno Stand Espositivo, Il Primo Progetto Di Marcello D'Olivo é L'attivita Del Progettista Dal 1948 al 1952," 30. G. Samonà in *Metron,* no. 49–50 (January–April 1950): 32. See also: E.N. Rogers, *Metron* no. 49–50 (January–April 1950): 33.

71 This project is discussed at length in Ferruccio Luppi and Paolo Nicoloso, *Marcello D'Olivo. Tra storia e mito* (Udine: Edizione standard. Gaspari, 2024).

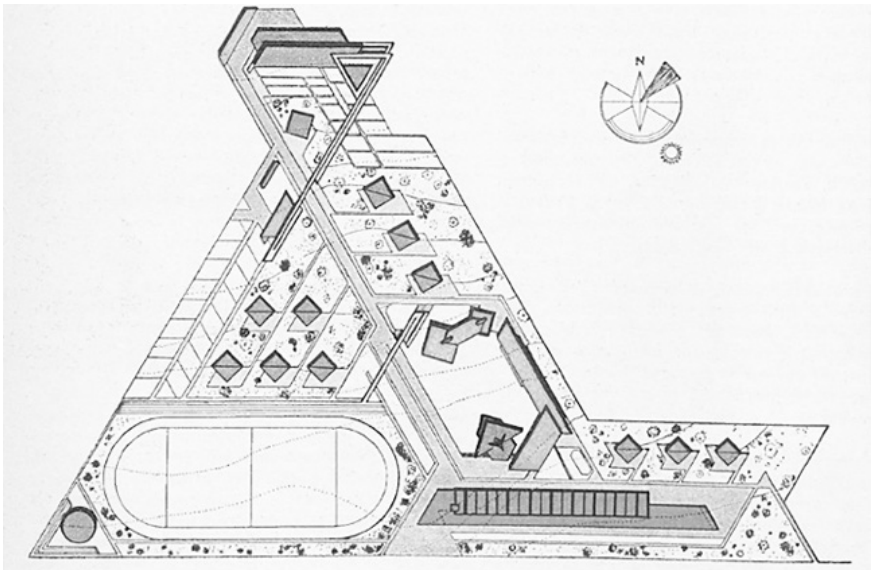
Seto Ursella teaching a arawing class at his school in Buja.
From Giovanni Ragagnin, "Una piccola impresal," *Civiltà Delle Macchine* 5, no. III (1955): 30.

D'Olivo's relationship with the Ursella family began during the INA Casa project in Buja and deepened with this collaboration. The family's director, Seto Ursella, often remarked that "D'Olivo is part of the family."[72] The Ursella family established their reputation in Buja by constructing homes for *Gastarbeiter*—Italian emigrants who moved to northern Europe (Belgium, Luxembourg, or Germany) to work in factories. Over time, their business shifted to producing prefabricated kitchens, which sustained the family until World War II, after which they began manufacturing prefabricated components. Early products included aluminium L-profile window frames, handrails, steps, and cemetery headstones. [73] In the postwar period, the Ursella family expanded into large-scale construction, such as a manufacturing facility for a prominent aristocratic family. This growth enabled them to acquire advanced machinery, reducing the reliance on manual labor, which still characterized most construction sites of the time.[74] The company's transformation into a construction firm (*impresa edile*) is chronicled in *Ursella: La storia della prefabbricazione*. The training of Seto's four sons, one of whom became a *geometra* (building surveyor), facilitated this expansion. Their meeting with Marcello D'Olivo marked a turning point. Sharing a common dialect and social background fostered mutual trust between Seto and D'Olivo. Over shared meals, D'Olivo convinced the Ursellas to experiment with an unconventional material for Italian construction at the time, paving the way for innovative collaborations: prestressed concrete.

Prestressed concrete, previously used only in engineering, was introduced into architecture through this project.[75] This material offered numerous advantages: speed and precision in construction, affordability, and a sleek appearance, which Zevi praised in his 1958 article, "Rinascimento Radente Precompresso."[76] The key benefit of pre-stressed concrete was its use of high-strength materials (concrete and steel), allowing for larger structural spans. Between 1951 and 1954, the canteen building was constructed. It featured two square blocks of different sizes, rotated 45 degrees and connected diagonally. In *Quattro Progetti di Marcello D'Olivo*, Zevi described the building as composed almost entirely of horizontal elements, with minimal vertical partitions, where structure took precedence over architecture. [77] The typography building reflected an idea D'Olivo explored early in his academic career: the radial reinforced concrete pillar.

72 Giovanni Ragagnin, "Una piccola impresa," *Civiltà Delle Macchine* no. III, vol 5 (Settembre–Ottobre 1955).
73 Seto Ursella, *1950–2010. Ursella. Sessant'anni di prefabbricazione. La lunga strada percorsa per costruire la Casa Finita in stabilimento* (Buja: self-published via Impresa Ursella, 2006), 43.
74 Tito Bianchi, "L'evoluzione del lavoro edile," 535.
75 Marcello D'Olivo and Silvano Zorzi, "Tre strutture in cemento armato precompresso," *Casabella* no. 201(1954): 24–28.
76 Bruno Zevi, "Rinascimento Radente Precompresso," L'Architettura Cronache e Storia, no. 35 (Settembre 1958): 296–307.
77 Ibid. 63.

This element served both a structural and a figurative purpose; as Poretti argued, the material was used 'integrally' throughout the Villaggio del Fanciullo, extending its use even to non-structural elements, embracing the expressive potential of concrete.[78]



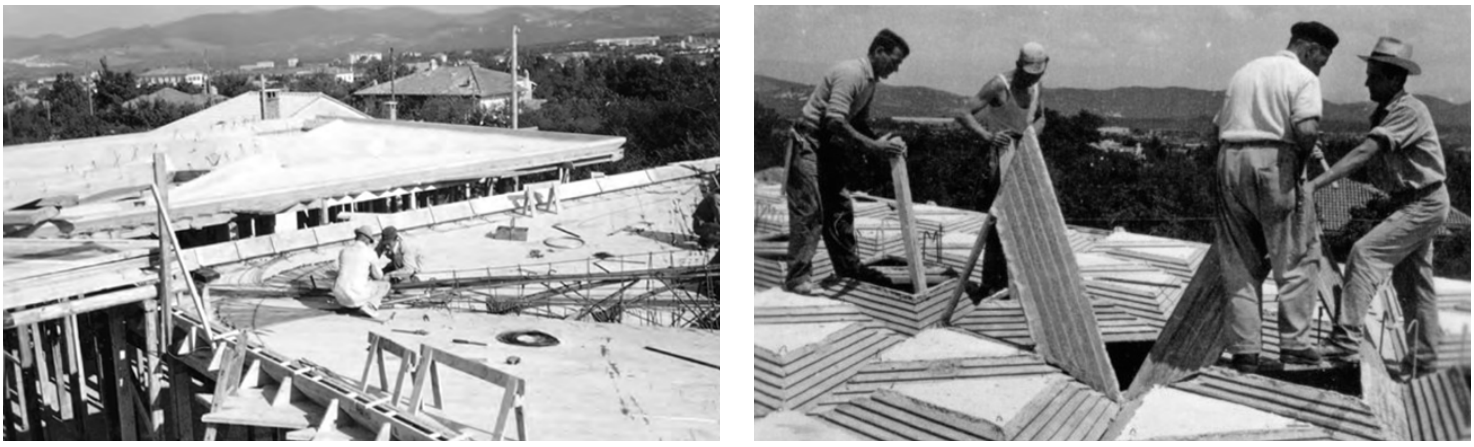
Marcello D'Olivo, Villaggio del Fanciullo, Opicina (Trieste), 1957, masterplan overview. From "Libere Architetture Nella Scia Di Wright. Il Villaggio Del Fanciullo Presso Trieste," *Domus,* no.257 (1952): 7.

As Seto Ursella recalled, concrete had become ubiquitous: "I keep looking at all the sections of houses, of bridges, where concrete was dominated, made malleable by new knowledge."[79] However, his reflections also reveal the tensions between Marcello D'Olivo's ambition to implement new prefabricated technologies and the harsh realities of construction on-site. Seto described the demanding conditions: "You could see the glow of the floodlights keeping them awake from every point, you could hear the croaking of the cement mixers and the echoes of the high cries against the hills. Because the creature had to be born before the moon went down, like the most delicate flowers, before the scirocco wind blew in from below and wreaked havoc on its steel soul and the rain cracked the freshly cast concrete leaves."[80] The reference to the moon's setting suggests that much of the work occurred during the early hours of the morning or late at night. This highlights the workers' immense effort and the challenges of handling pre-stressed concrete, which was an unfamiliar technology at the time. Seto acknowledged their uncertainty: "Nobody knew [how to do it]" and there was an "[immense] trust in this young architect."[81] Despite its revolutionary goals, the project for the Villaggio del Fanciullo exposed the limitations of Italy's construction industry regarding prefabrication. Photographs reveal rudimentary conditions on-site: workers had no protective equipment, performed heavy labor manually, and had minimal machinery. Most prefabricated elements in the project were decorative rather than structural. For instance, triangular cupels were used for ceiling cladding, partitions, balustrades, and non-load-bearing pillars.

78 Sergio Poretti, "Il vizio del cemento Armato," in Feruccio Luppi and Paolo Nicoloso, *Marcello D'Olivo architetto* (Milan: Edizioni Gabriele Mazzotta, 2002), 45.
79 Ibid. 72.
80 Ibid. 79.
81 Ibid. 80.

These small-scale prefabricated elements served more as marketing tools to present the project as a model of industrialized construction. While innovative for its time, much of the work still relied on traditional methods. Nonetheless, the Villaggio del Fanciullo garnered critical acclaim, earning the Ursella family recognition and enabling them to establish a builders' training school in Buja. [82]

Although the Villaggio del Fanciullo project was scaled back due to geopolitical factors, it received significant press coverage, appearing in publications such as *Architettura Cronache e Storia, Civiltà delle Macchine, Domus, L'Architecture d'Aujourd'hui,* and *Casabella Continuità*. This attention was partly due to the mentorship of Zevi and Sinisgalli, who supported the young group of architects, especially Marcello D'Olivo. The architects' provincial background was framed as a kind of endearing authenticity. As one observer noted: "[They] arrived in Milan in a ramshackle car. We liked them with those pipes, those hats, those landed clothes. We realized they were not snobs but civilized provincials, related to Ippolito Nievo and Italo Svevo."[83] This portrayal reflected a broader bias that often-dismissed architecture from outside major urban centers like Rome or Milan. Nasi identified these "third areas" of Italy—outside the big cities—where clients were typically state institutions or construction companies. [84] The project of the Villaggio del Fanciullo, therefore, helped develop a new awareness of the Italian province, turning the gaze of the discipline beyond the major urban scenes. While Zevi critiqued aspects of the project, such as "unjustified structural caging, numerous forced and irritating foreshortenings," he still recognized it a the overall work was understood as "a nonconformist act: a genuine youthful will to achieve something extraordinary, wonderful, pioneering," with D'Olivo praised for bridging architecture and engineering, and pre-compressed concrete hailed as "the constructive textile of the future."[85] Even the often critical Tafuri called it "one of the most remarkable projects of those years."[86 87 88]



Marcello D'Olivo, Villaggio del Fanciullo, Opicina (Trieste), 1957. Ursella workers are on site. From Ursella, 1950-2010, *Sessant'anni di prefabbricazione. La lunga strada percorsa per costruire la Casa Finita in stabilimento* (Buja: Self-published by Impresa Ursella , 2006), 43.

After the co-founding and dissolution of Studio DBB, D'Olivo established offices in Rome, Trieste, and Milan before returning to Rome in 1965 to

82 D'Olivo, "A sud di Latisana," 4.
83 Sinisgalli, "Un'architetto Nuovo," *Tempo*, Maggio 1952, 44.
84 Franco Nasi, *L'architetto* (Florence: Vallecchi, 1964),72–75.
85 Bruno Zevi, "Marcello D'Olivo Architetto Contadino. Villaggio Del Fanciulo a Trieste," *Cronache Di Architettura* 166, no. II 73/190 (1971): 164.
86 "Libere Architetture Nella Scia Di Wright. Il Villaggio Del Fanciullo Presso Trieste," *Domus* 257 (November 1952): 7.
87 Manfredo Tafuri, *Storia dell'Architettura italiana 1944–198* (Einaudi Editore:1986), 91.
88 Sinisgalli,44.

work for Salini, a prefabrication company, as a concrete consultant. From 1977 onward, D'Olivo lived in provincial towns including Treviso, Cremona, Udine, and Portogruaro. At first glance, these choices seem unstrategic, but they align with the presence of small-to-medium family-run enterprises specializing in prefabrication for which he worked, such as Tecnoosystem (1980–1985) in Cremona and Altan Prefabbricati (1987–1991) in Portogruaro. These experiences honed D'Olivo's expertise in coordinating and executing projects with *imprese edili* (building firms). His research into prefabrication—and his longstanding relationship with the Ursella family of Buja—proved essential in advancing the field, influencing his later works and collaborations. The architect demonstrated his commitment to prefabrication in subsequent projects, including the master plan for a residential development and the construction of several buildings, such as Villa Spezzotti. A closer analysis of this holiday villa reveals how the challenges of prefabrication encountered in the Villaggio del Fanciullo were pushed to an extreme in this project.

THE LIMITS TO PROGRESS: LIGNANO PINETA AND VILLA SPEZZOTTI

While the Villaggio del Fanciullo project was being scaled down, Marcello D'Olivo, with the help of Bulfoni (whom he convinced to return from South America), embarked on an ambitious plan for a holiday town, Lignano Pineta. This project marked D'Olivo's acknowledgment of the limitations of prefabrication and a shift toward working with speculative real estate ventures. Like Arenzano Pineta, the development was initiated in 1953 by a consortium of local entrepreneurs and industrialists under the name Società Lignano Pineta. The development was planned for a pristine area near the Tagliamento River estuary, close to Lignano Sabbiadoro. Originally developed in the 1930s as a fascist heliotherapy colony for children, the site was strategically positioned—just a short drive from Venice (1 hour) and Trieste (1 hour 20 minutes). As Barillari noted, references to Ernest Hemingway's works were used to justify the intervention, lending an international and Americanized aura to the otherwise provincial setting.[89] The poetic connection between Hemingway's novels, set in this region, and the location became part of the project's narrative, eventually appearing in an article titled *"The Italian Florida,"* which linked D'Olivo, Kechler, and Hemingway.[90] [91] Lignano Pineta's proximity to the American NATO Zone A base in Trieste (in place until 1954) added further resonance.

The initial plan for the Lignano Pineta area, spanning 9 x 6 kilometers, was modest, specifying construction of a few infrastructural links to support wild camping while selling the remaining land. However, the involvement of Marcello D'Olivo significantly transformed this vision. As recalled by Paolo Pascolo, "D'Olivo settled on the site in a wooden hut and studied the town plan of the place and the peninsula in general. His basic concern was to introduce roads, houses, hotels, and shops without altering the feel of the forest." [92] D'Olivo's organic approach led to a masterplan centered around a spiral network of roads.

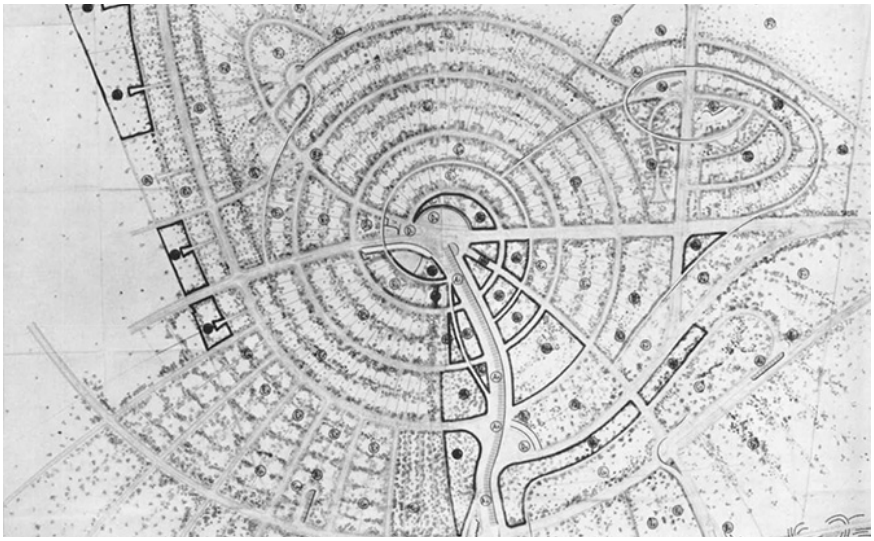
89 Diana Barillari, "Genesi di una spirale. Marcello D'Olivo e il piano per Lignano Sabbiadoro," in M. Bortolotti, *Lignano* (Udine: Società Filologica Friulana,2014), 575.

90 Giuliano Malatesta, "Lignano Sabbiadoro e il mito di Hemingway," in *Rivista Studio* (2020), https://www.rivistastudio.com/lignano-sabbiadoro-agosto/.

91 F. Escoffier, "Lignano Florida d'Italia é costruita su misure umane," *Il Gazzettino* (1963).

92 Marcello D'Olivo and Paolo Pascolo, "A sud di Latisana," *Domus* no. 297 (1954): 2.

Marcello D'Olivo, Lignano Pineta, Lignano (Udine), 1954, bird view showing road infrastructure. From Paolo Pascolo and Marcello, D'Olivo, "A sud di Latisana," *Domus*, no. 297 (1954): 3.



Marcello D'Olivo, Lignano Pineta, Lignano (Udine), 1954, masterplan.
From Paolo Pascolo and Marcello, D'Olivo, "A sud di Latisana," *Domus*, no. 297 (1954): 1.

This spiral design, described by Tentori as "the first landscape for cars," embraced vehicular traffic and was crafted to preserve the forest's natural character while allowing for a continuous view of the Pineta. The spiral's progression rose three meters every 10 degrees, with a width of 100 meters to accommodate two deep *lotti* (plots) of 50 meters each. To preserve the character of the area, buildings were limited to two floors, with a built-up area of no more than 20 percent per plot. The development was designed to be experienced best by car, providing continuous views of the Pineta and a cohesive sense of place.[93] As for the case of the rest of the country, Law 1942 didn't allow *Piani Particolareggiati* to be made without the approval of a larger *Piano Regolatore*. At the time, Latisana didn't have one. D'Olivo in 1952 had already drawn up the spiral. Less than a year later, in the summer of 1953, work on the site effectively started without effective authorization. This 'unorthodox procedure' was recorded through the complaints of some residents who recalled the branches and trees falling due to the bulldozer's activity and the *geometri* Milocco and Collavini, who were sent on-site to reconcile the drawings with reality. To persuade the authorities to retroactively approve the Piano Particolareg-

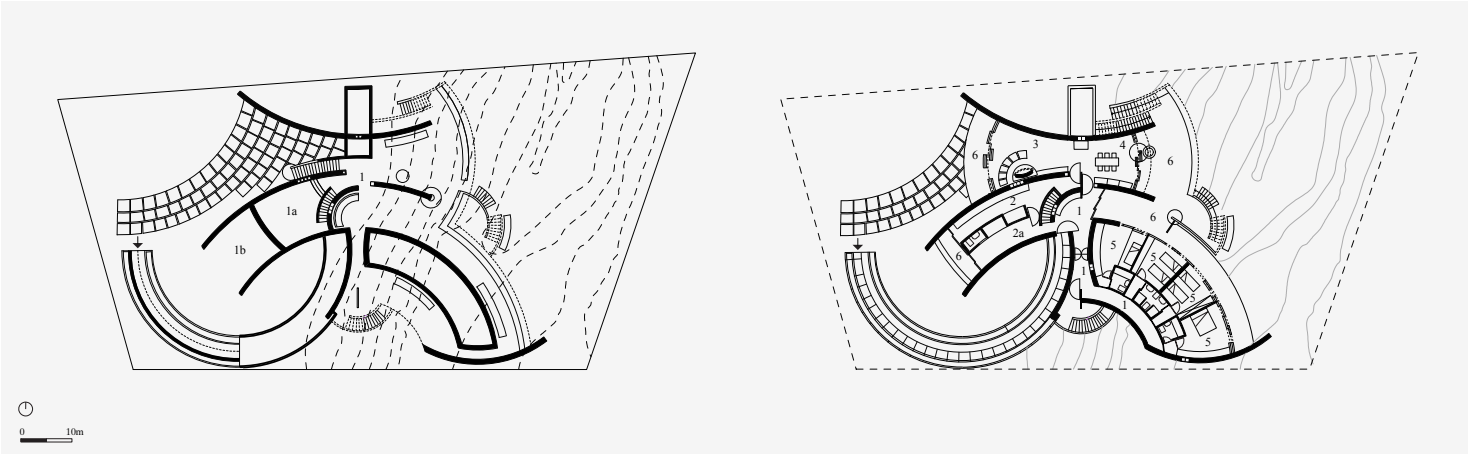
93 Ibid., 1–9.

giati for Lignano Pineta, an extended plan was submitted connecting the D'Olivo project with the nearby Lignano Sabbiadoro and the main town of Latisana. This prompted the authorities to grant permission. D'Olivo added a letter to the mayor, and he explained who the people involved in this project were, in order to leverage the approval.[94] The first buildings completed by D'Olivo within the Pineta were individual villas and hotels for the main members of the Società Lignano Pineta.

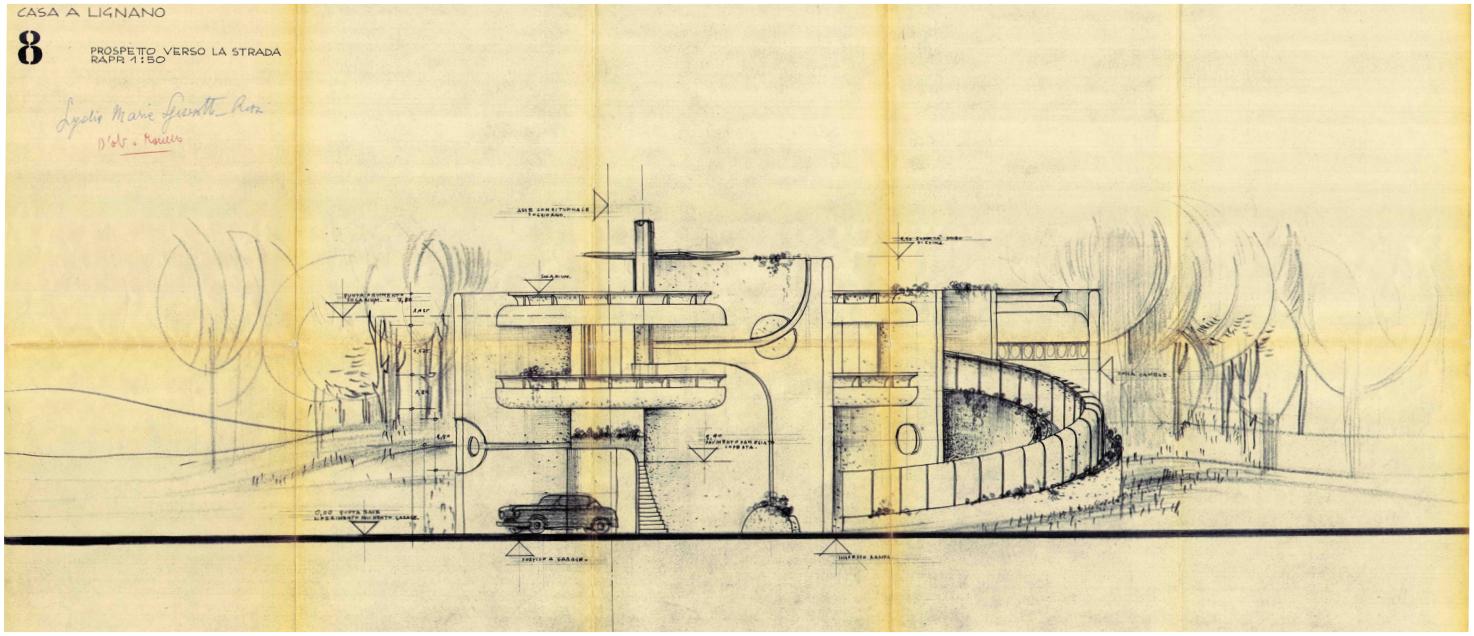
The strong relationship of trust between Marcello D'Olivo and the local builders, the Ursella family, led to their continued involvement as the primary builders and contractors for the entire Lignano Pineta development. They brought with them a large workforce trained at their Buja-based school, including carpenters, stonemasons, and bricklayers. Although these workers were never formally interviewed or photographed, they were first mentioned in an architectural magazine in 1954.[95] Images of prefabricated elements were shown accompanying large aerial photographs of the new development, leading readers to believe that Italy's construction industry was fully modernized. One of the key buildings to showcase the use of prefabrication techniques was the Treno building, a linear, one-story structure designed to house main services and shops. It ran along the main road that connected the center of the spiral development to the seafront. As documented, the Ursella family produced prefabricated elements for this building, which was completed in an impressive two months.[96] The prefabricated pillars, walls, and ceiling panels were lifted into place using a crane running along two rails imported from Germany. The materials used were either in their natural state or pre-made elements, showcasing the potential of prefabricated construction. However, this was in contrast to Villa Spezzotti, the last building completed by D'Olivo in Lignano Pineta, again built with the aid of the "world-famous" Ursella family, who indulged the architect with blind trust, employing all their energy.[97]

Villa Spezzotti was commissioned by Lydia Spezzotti, who married Luigi Spezzotti, a member of a wealthy industrialist family that had accumulated capital in the manufacturing sector in the region. She commissioned Marcello D'Olivo to design the villa as a holiday home for the family.[98] The villa is located east of Villa Mainardis (also built by D'Olivo), with a north-south orientation aimed at maximizing sunlight throughout the day. In doing so, it creates a strong connection to the heliotherapeutic houses designed by Frank Lloyd Wright, such as Casa Keith in New Jersey (1947) and Casa Herbert, which served as inspirations for the villa's design.[99] The house is accessible at both street level and the first level. The street-level access is located behind the parking space, where the staff's living quarters, a hidden entertainment space, and most of the service areas are arranged. Initially, this area was directly connected to the natural sandy dunes, and the sand would often make its way into the basement each summer.[100] The owners' access to the house is via a steep, narrow, outdoor pedestrian ramp flanked by planters and lighting features. This ramp connects the villa with the rest of the Lignano development, reinterpreting the spiral movement, which is typically experienced by cars, on a pedestrian scale. In this way, D'Olivo celebrates the pedestrian dimension, which is otherwise disregarded in the rest of the development.

94 Luppi and Nicoloso, *Marcello D'Olivo. Tra storia a mito* (Udine: Gaspari, 2024).
95 D'Olivo, "A sud di Latisana," 4.
96 Ursella, *1950-2010. Ursella*, 45–49.
97 Michele Parrella, "Recenti costruzioni di Marcello D'Olivo," *L'architettura. Cronache e Storia* no. 35 (1958): 302.
98 Liliana Cagnelutti, *Spezzotti. Una famiglia e un'azienda in Friuli fra Ottocento e Novecento* (Udine, Ribis: 2010).
99 Parrella, "Recenti costruzioni di Marcello D'Olivo," 302.
100 Interview Bonomo – Gregoratti (current owner of Villa Spezzotti), October 2024.



Marcello D'Olivo, Villa Spezzotti, Lignano Pineta, 1958. ground and first floor plans. Redrawn by the author.
From Planning Department of Lignano Pineta.
1. Entrance/Corridor/Hallway; 1a. Garage; 1b. Driveway; 2. Kitchen; 2a. Pantry/laundry; 3. Living Room; 4. Dining Room; 5. Bedrooms; 6. Balconies and Verandas.



Marcello D'Olivo, Villa Spezzotti, Lignano Pineta, 1958, planning document of street elevation.
From Planning Department of Lignano Pineta.

Upon reaching the raised level, the interior is organized around circular arches arranged along 45-degree axes, a design motif that creates a sense of movement, as though the house is always in motion. This arrangement blurs the lines between inside and outside, creating an initial sense of confusion and a lack of hierarchy. A semi-covered veranda surrounds almost all the enclosed rooms, altering the notion of indoor/outdoor space both visually and experientially. The entrance atrium opens into two distinct wings: the living room and the kitchen, which are oriented to the northeast and northwest. The living room extends along the axis and opens up on either side to two balconies: one facing the street (screened by plants) and the other overlooking the back garden, which was once sandy dunes but is now a protected pine grove. The kitchen, small and functional, is accessible from both the atrium and the living room. It features an inbuilt cabinet with a series of drawers and is only large enough for two people, evoking the feeling of being on a moving boat. In contrast to Villa Arosio, Villa Spezzotti was designed as a seamless unity between furniture and architecture, as highlighted by Gabriella Bucco in her article.[101] D'Olivo's approach is evident in the integration of

101 Gabriella Bucco, "Villa Spezzotti. Unità di architettura e di arredi," in *Lignano* (2014): 658–62.

Top: Marcello D'Olivo, Villa Spezzotti, Lignano Pineta, 1958, street view.
Bottom Left: Marcello D'Olivo, Villa Spezzotti, Lignano Pineta, 1958, bedroom veranda to back garden.
Bottom Right: Marcello D'Olivo, Villa Spezzotti, Lignano Pineta, 1958, corridor leading to bedrooms.
Photos by the author, 2024.

joinery elements within the main structure, creating a cohesive architectural experience. The bedrooms and bathrooms are arranged along the north-eastern-southwestern arch of the house. These spaces can be accessed either from the covered veranda, which serves as a shading device, or from the interior of the house via a curved corridor. These rooms are concealed behind a richly panelled wall made of three types of timber—larch, oak, and mahogany—which is repeated throughout the house in all the joinery and millwork. On this floor, the house accommodates five people, with three single bedrooms and a large double bedroom with an ensuite bathroom. The three single bedrooms evoke the feeling of boat cabins or monastic cells, featuring basic furniture and beds enclosed in timber-panelled niches. The warmth of the timber contrasts with the cool, grey flooring. The interior walls are plastered white, with the only grey feature being the exposed concrete walls of the façade, which reveal the timber texture of the concrete formwork.

A critical aspect of the discussion around Villa Spezzotti is its use of prefabricated modules made of reinforced concrete, something that had not been highlighted in prior literature. Tafuri noticed the contradiction in Villa Spezzotti: "The Italian neo-expressionism," he argued, "interpreted in professionally shrewd forms by Marcello D'Olivo in Villa Spezzotti in Lignano Pineta (1958) […] appears more like a labelled cosmetic over a wrinkled and worn disciplinary face."[102] During the construction of Villa Spezzotti, D'Olivo was also working on a prototype for a prefabricated house, consisting of a slab made from tubular elements joined by four other components, all connected by bolts and reinforced concrete. This prototype was intended to use ten of these tubular elements. However, lifting equipment and machinery at the time were not advanced enough to properly assist with the fixing of the elements. As a result, the components had to be made lighter, which ultimately compromised their structural integrity and defeated the purpose of the prefabrication experiment.[103] In the end, the vertical structure of Villa Spezzotti was built with prefabricated reinforced concrete walls, while the horizontal structures were made on-site with monolithic concrete or reinforced brickwork. Villa Spezzotti thus represents a failure of prefabrication as it had been initially envisioned and instead embraces a kind of formal virtuosity, a missed opportunity for prefabricated technology. And yet, it embodies the highest form of experimentation for the freedom of the layout, freed from standard residential requirements. The villa lacked central heating, a feature typical of many seaside holiday homes of the time. Villa Spezzotti, like Villa Arosio, was widely published and appeared on the widely distributed Höepli and Görlich trade magazines, becoming the last tangible trace of Marcello D'Olivo in Lignano Pineta.[104]

As early as 1954, the relationship between Marcello D'Olivo and the Società Lignano Pineta began to deteriorate. The long-standing issue with Sabbiadoro resurfaced, and a group of hoteliers and property owners expressed distrust toward the mayor, particularly criticizing the appointment of D'Olivo. His involvement with the Società was seen as a conflict of interest, and his plans for Lignano Pineta were alarming. The spiral design of the master plan was believed to attract traffic and divert it away from Sabbiadoro, which upset local stakeholders. In 1955, D'Olivo submitted his Piano Regolatore for the entire Latisana area as a solo project, but the response was overwhelmingly negative. He was removed from the project and, despite his efforts to defend his design against the speculators, his exit was inevitable. Subsequently, the project was handed over to architect Piccinato, whose approach was seen as a direct counterpoint to D'Olivo's. Piccinato's design was more pedestrian-oriented, character-

102 Tafuri, *Storia dell'Architettura italiana 1944–198*, 91.

103 Ursella, *1950–2010. Ursella,* 43.

104 Roberto Aloi, "Villa Spezzotti a Lignano Pineta," in *Ville in Italia* (Milan: Höepli, 1960), 209–215; Marco Dezzi Bardeschi," Marcello D'Olivo—Villa Spezzotti a Lignano Pineta," in *Villas Italiennes d'aujourd'hui* (Milan: Görlich, 1966). Other relevant mentions include: G. Habasque, *Marcello D'Olivo*, "L'Oeil," no. 89 (1962): 80–87; and "Quattro ville a Lignano Pineta—3 Marcello D'Olivo architetto," *Ville e Giardini* no. 49 (1960): 30–33.

ized by a panoramic boulevard and large park spaces interspersed with pedestrian pathways, an explicit rejection of D'Olivo's car-centered spiral.

Villa Spezzotti symbolic significance made it a gathering place for intellectuals around D'Olivo's legacy. Among the villa's long-term guests were poet Leonardo Sinisgalli, his partner Giorgia de Cousandier, and artist Giuseppe Cesetti. Lydia Spezzotti, who lived in the villa until her death, hosted them regularly. According to Perrella, the villa came to be regarded as a "monument of organic architecture," symbolizing D'Olivo's approach.[105] While Lignano represented a stepping stone for D'Olivo, leading him to work on several other seaside town projects, most of his work, unlike that of contemporaries like Magistretti or even his fellow university peers, remained on paper. This can be attributed to his elusive approach to the profession. D'Olivo was resistant to following the conventions of his mentors and constantly fought for the integration of prefabrication, yet he was also unable to settle in one place for long. His frequent relocations and inability to consistently manage projects, whether public or private, meant that many of his designs never reached completion (a recent estimate reveals that less than 30 percent did).[106] This nomadic, restless attitude was well captured by Santini, who described D'Olivo's career as "an unhabitual and often adventurous affair, in contact with different societies and within different environments."[107]

INHABITING THE KINK

Through the analysis of the two holiday villas, Villa Arosio and Villa Spezzotti, completed around the same time in two holiday suburbs aimed at the upper classes of nearby urban centers, this essay seeks to discuss the attitude of two architects belonging to the "Third Generation" towards the notion of prefabrication in architecture. The case of Villa Arosio embodies a strong resistance toward industrialization from the construction sector, also showing how the complacency and opportunism of Vico Magistretti with regard to these notions garnered him a successful career, one which, from this point onwards, was dedicated to the design of holiday villas for the upper classes alongside the design of objects intended to fill the houses of middle-class urban dwellers. As Tafuri has argued, these objects evoked "a nostalgic longing for magic, for the golden age of the bourgeoise mystique [seen as] a typical method of compensation,"[108] a compensation which can also be interpreted as a form of social distinction; in other words, the explicit willingness of Vico Magistretti to be recognized as part of the upper classes through his attitude towards design and construction.

On the other hand, the attitude of D'Olivo showcased the frustration and utopian vision of wanting to challenge the *status quo* by experimenting, albeit unsuccessfully, with the construction technologies available, through an alliance with the small-sized firm Ursella. This attitude, coupled with D'Olivo's inability to fit into a highly elitist profession, resulted in his ostracism from architectural practice in Italy and its intellectual debates. This frustration was sublimated through his practice abroad, in developing countries that had recently gained independence from colonial European nations, or through theoretical work that never found practical application.[109]Most importantly, however, his closeness with workers and

105 Perrella, "Recenti Costruzioni," 304.

106 P. Nicoloso, "Lignano, 1954–1964. Nella nuova città balneare," in *Gianni Avon. Architetture e progetti 1947–1997,* edited by F. Luppi and G. Zucconi (Venice: Marsilio, 2000), 53–69.

107 Santini, "Marcello D'Olivo," *Ottagono* no. 33 (June 1974): 58–65.

108 Manfredo Tafuri, "Design and Technological Utopia," in Emilio Ambasz, *Italy: The New Domestic Landscape*. (Florence: Museum of Modern Art, 1972), 400.

109 For a full list of projects by Marcello D'Olivo, refer to: "Regesto delle Opere," in Feruccio Luppi and Paolo Nicoloso, *Marcello D'Olivo architetto* (Milan: Edizioni Gabriele Mazzotta, 2002), 191–200.Also See: Marcello D'Olivo, *Discorso per un'altra architettura*, vol. 1–3 (Udine: Casamassima Editore, 1972); and Marcello D'Olivo and Piero Mainardis De Campo, *Ecotown Ecoway. Utopia ragionata* (Rusconi Libri, 1986).

the building site symbolizes the positioning of architecture professionals vis-à-vis the implicit political plan of INA Casa and its consequences for the Italian construction sector at large.

Ultimately, this essay aimed to showcase how these two architects tried to inhabit the 'kink' defined by Tim Ingold, bridging the distance that normally occurs between the architect and the building site. Ingold defines 'technical practice' as the operational side of architecture, detached from the actual process of making: "Architects think of a building as a complete thing, while builders think of it and know it as a sequence—hole, then foundation, framing, roof, etc."[110] The contradictory approach taken by D'Olivo through his experiment with prefabrication was the result of the sublimation of the situation of the construction sector in Italy. His villas ended up as a declaration of the failed structural reform of the construction sector.

110 T. Ingold, "The Textility of Making," *Cambridge Journal of Economics* 34, no. 1 (January 1, 2010): 93, https://doi.org/10.1093/cje/bep042.

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