Francesco Ceccarelli

A House in the Form of a City. Casa Ceccarelli in Bologna (1962-63)

Giancarlo De Carlo; Marcello Ceccarelli; Bologna; Urbino; Private Home

/Abstract

The Casa Ceccarelli in Bologna was designed by Giancarlo De Carlo for the astrophysicist and educator Marcello Ceccarelli in 1961-62, a time when the architect was working on the university settlement Collegio del Colle in Urbino, while his patron was completing the Croce del Nord (Northern Cross) --the first Italian radio telescope--in the Po valley. Born as a sort of experiment between two like-minded and unusual intellectuals, this building was, in De Carlo's words, "a flagrant case of a project-process, or in other words, of architecture" but also a laboratory for studying and testing new spatial inventions in a playful way. The author of this essay has lived in the house since he was a boy, experiencing it as a miniature city surrounded by its countryside and populated by numerous friends who were always there.

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He has also co-edited volumes on Giovan Battista Aleotti, on villas and gardens in Renaissance Ferrara, and on Bolognese art and architecture in the age of Pellegrino and Domenico Tibaldi, as well as contributing significant chapters to Electa's series on the history of Italian architecture. In the last three years he has worked on the figure of the ferrarese architect Biagio Rossetti, on the architectural theories of the scientist Ulisse Aldrovandi and on the hydraulic architecture in Renaissance Italy.

https://doi.org/10.6092/issn.2611-0075/11192 | ISSN 2611-0075

When my father Marcello Ceccarelli decided to build a house for himself and his family in Bologna in 1961, he had just recently moved to the city to teach experimental physics and to "look for something to make us talk about the atoms and the stars".[1] He was just over thirty years old and had already made a name for himself in the field of elementary particle analysis. He had graduated from the University of Padua, where his experiments with measuring the decay of radioactive potassium had provided one of the world's first observations on the non-conservation of parity, providing evidence for redefining the age of the universe, at least doubling it. From there he had moved to England and Germany to work closely with two Nobel laureates, Cecil Powell and Werner Heisenberg, and then finally returned to Italy to face new challenges in the field of cosmology. It was precisely at the University of Bologna between 1959 and 1962 that a research group of physicists formed around the figure of my father, the experimental scientist, focusing all their energies on the exploration of the universe through radio astronomy, a field in which they were among the most adventurous pioneers in our country. This gave rise to a project in Medicina, near Bologna, to create a cutting-edge tool for exploring the sky and mapping the universe through radio sources. It was the "Northern Cross", a transit radio telescope unique in Europe, that would establish itself as a centre of excellence for scientific research worldwide shortly after its activation, when its first surveys confirmed the assumptions regarding the expanding universe formulated in Cambridge by Sir Martin Ryle.[2]

The Northern Cross project, remembered in retrospect as "an immense work, beautiful and full of despair",[3] absorbed most of Marcello Ceccarelli's professional and creative energies from 1961 to 1964, the exact years when his new domestic universe was also taking shape—the architectural microcosm of the house that had to reflect his personality as well as meet his private and family needs. These were the years in which observing and listening to the interstellar space came into dialogue with the redefinition of his own, existential one and of the architecture that was needed to represent it. Hence the need to find the most suitable interlocutor who could share in and interpret his quest. Marcello turned to an architect driven by the same experimental energy and endowed with a solid scientific background, equally free and independent in his judgements and able to discuss concrete problems in search of innovative and highly personalized solutions.

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1 For more on Marcello Ceccarelli (1927-84), see *Marcello Ceccarelli. Biografia epistolare di un fisico (1950-1980)*, edited by L. Fabbrichesi Ceccarelli (Bologna: CLUEB, 1994); M. Ceccarelli, L'avventura di vivere (Bologna: Pendragon, 2004); M. Hack, *Marcello Ceccarelli: Un esempio difficile da dimenticare e da imitare*, celebratory opening ceremony for the awarding of the Archiginnasio d'Oro in memory of Marcello Ceccarelli, Bologna, 2 February 1984. The quote is taken from M. Ceccarelli, Qualcosa per farci parlare di atomi e di stelle, illustrations by C. Leoni (Bologna: Cappelli,1977).

2 A. Braccesi, "Tra ricordi e documenti. Astronomia e cosmologia a Bologna, 1959-1969", in *Memorie della società astronomica italiana*, vol. 68: 521-542, and M. Ceccarelli, I. Tricario, "Il grande radiotelescopio italiano", in *Costruzioni Metalliche*, n. 1 (1965): 86, 94. For more on the architectural design of the radio telescope in Medicina, see F. Ceccarelli, "Cygnus A e le cicogne", in *d'A-d'Architettura*, no. 30 (2006): 154-161.

3 M. Ceccarelli, *Viaggio provvisorio* (Bologna: Zanichelli, 1977), 21.

Giancarlo De Carlo was introduced to Marcello by his brother, Paolo Ceccarelli, who was at the time De Carlo's young student and collaborator. Paolo was able to envision the great potential value of this encounter. De Carlo was always reluctant to accept projects for private clients, except for those few cases where he believed he could establish a sincere creative dialogue on the basis of intellectual and personal affinities. He was certainly not a celebrity architect in search of commissions from wealthy clients. To the contrary, he was increasingly becoming a rigorous, incisive designer driven by ethical values and sensitive to the most authentic principles of civil architecture with public and social aims. In this specific case several factors contributed to the success of the joint venture, some personal and others logistical. For one, both De Carlo and Ceccarelli were atypical intellectuals of exceptional stature in their fields. Also, the project benefited from the geographical position of Bologna, situated halfway between Milan and the building sites where De Carlo was at that time busy with some of his most demanding projects. The reference here is, of course, to Urbino and the drafting of the city's general master plan (which occupied the architect between 1958 and 1964)[4] as well as the design of the complex of university colleges on the Colle dei Cappuccini (1962-64).[5] For De Carlo those years were also distinguished by design experimentation that would turn out to be decisive in his career, shaping his professional destiny and earning him a notable place in the history of architecture of the second half of the twentieth century. It thus comes as no surprise that the design of the Casa Ceccarelli brought together intangible values such as expectations, desires, and memories and the more concrete architectural elements derived from the reworking of volumetric and spatial concepts and detail motifs taken up from that decisive experience in the Marche that he was living through at that time.

Apart from a few brief remarks in the catalogue of De Carlo's works, the Casa Ceccarelli has never been published, let alone studied. The project drawings are still extant, at least for the crucial phases approved by the client and authorised by the municipality, but much of the preliminary correspondence, as well as the original wooden model, have been lost. Sixty years since its construction, the house is still well preserved, thanks mostly to constant maintenance performed over the years, which has so far forestalled the need for significant restoration. Over the decades the many trees in the surrounding garden have also grown, helping to bring the pre-existing agrarian terrain in line with the original intent of the project, which had sought to insert a contemporary architectural structure into the natural landscape with studied views of the historic city and the Po valley, as well as of the surrounding hills of which it is an integral part.

In fact, the house is located in the foothills of the Apennines behind the city, on the western side of the valley of the Ravone stream, along the Via di Casaglia,

4 G. De Carlo, *Urbino. La storia di una città e il piano della sua evoluzione urbanistica* (Venice:Marsilio: 1966)..

5 Much has been written about the Colle colleges, the first complex of residential buildings for students of the University of Urbino. These include *Giancarlo De Carlo. Le ragioni dell'architettura*, edited by M. Guccione and A. Vittorini (Milan: Electa 2005) 130-133, and L. Mingardi, *Sono geloso di questa città. Giancarlo De Carlo e Urbino* (Macerata: Quodibet, 2018), 59-78.

a couple of kilometres from the Saragozza Gate, in a wooded position from where it is difficult to see other buildings other than for the city skyline to the north. The plans to safeguard the hill, approved by the municipality of Bologna shortly after the construction of the house, have contributed to preserving the surrounding environment, keeping it practically unchanged since the middle of the twentieth century.

The reason for this isolation from the more densely populated areas was due to the need to for a home-observatory, a place from which to study the sky away from the sources of nocturnal light pollution, but without losing sight of the urban context and still continuing to participate in the cultural life of the city, which was actually emphasized in the design. This initial need necessitated an ascending system of stairs and terraces, from the garden to the panoramic studio located at the building's apex, where the scientist, educator and science communicator (Marcello Ceccarelli was one of the most popular Italian science communicators during the 1960s)[6] could immerse himself in his theoretical and literary work, while maintaining a place from which to observe both the celestial vault and the city in the distance. All residential parts and practical functions were to be housed at intermediate levels. The house also had to adapt to the steep inclination of the lot's sloping terrain, compensating for the incline through a system of external and internal staircases that ensured the connection between the different horizontal levels into which the residential core had to be subdivided, and adhering as much as possible to the morphology of the site without intervening with extensive digs and deep substructures.

Starting with the first drawings from November 1961, the overall architectural concept was thus developed around a system of multiple ramps onto which the various living spaces were grafted. These were conceived as interdependent cells on several levels, integrated with each other and open to the outdoor landscape thanks to large windows, terraces, and loggias. The central staircase served to establish order in the internal distribution, creating a balanced division between the more private are (in the upper part of the building) and the common ones (in the lower part and in contact with the garden). Those spaces were further divided through less pronounced differences in levels, through passages and walls, applying the *Raumplan* principles in an unprecedented and refined way to diffuse a system of shared spaces that De Carlo was particularly interested in introducing into his architecture. The materials used were the same as those employed for the colleges of the Colle in Urbino—that is, concrete and bricks (which, however, were laid in header bonds)—and the window frames were painted white, with large windows designed to allow both the sunlight to come in during the day (filtered through the vegetation and mitigated by the oak shutters), and the moonlight at night, which could penetrate deep into the rooms.

6 Among his best-known publications are: M. Ceccarelli, *Una betulla per la Pio* (Bologna: Zanichelli, 1968), and *Il bambino e la scienza* (with L. Fabbrichesi Ceccarelli) (Bologna: Zanichelli 1981). He also conceived and conducted the television program *Planetario* for RAI 2 in the late 1960s.

In the first versions of the project, designed between November 1961 and April 1962 and very similar to each other, the general layout of the house—as can be seen from the 1:50 scale drawings initialled LM (Luigi Magarelli)[7]—showed a more complex organism than what was later built, where De Carlo proposed to make the most of the available surface, expanding the living area on the eastern slope and creating a system of towers with small spiral staircases starting from the ground and then connecting parts of the interior spaces with the large outdoor terraces overlooking the valley below. The model (whose disappearance from De Carlo's studio he personally regretted, as he told me himself almost thirty years later)[8] perfectly illustrated the three-dimensional complexity of the whole, which can now be easily reconstructed through digital modelling.

The design of this very rational labyrinthine building consisting of many small living spaces, the garden, and terraces connected to each other through ramps and spiral staircases (as actual towers that echoed the Ducal Palace of Urbino) not only linked to the design principles that the architect was developing in those years, but above all revealed its deeper and radical meaning as a "house in the form of a city". Inspired by an ideal Montefeltro model,[9] the project was also influenced by other narratives, as well as by the vibrant playfulness and a sense of libertarianism shared by the two men.

The final version agreed to by De Carlo and Ceccarelli reflects this solution, which was presented to and approved by the municipality of Bologna on 21 September 1962. Once the work began, under the direction of the Bolognese engineer Francesco Mazzanti, Ceccarelli came to believe that the building was slightly oversized with respect to the family's needs and suggested that the volumes be scaled down, especially those to the east, also considered the most critical from a structural point of view given their position exposed to the hidden dangers of the landslide-prone slope. Changes were implemented on the body of the building facing the valley, where two rooms and a part of the lower loggia were removed, and above all the "small towers", which originally gave visual sense to the whole, were eliminated. The site drawings document this delicate passage and also record the decision to move the garage, initially connected directly to the house and later built in a separate position, as a precaution due to the unstable terrain.

In March 1963 the works were likely at a good point; this date also corresponds to the only letter from Ceccarelli still found in the De Carlo archive. There was a problem related to the construction of the roof, the construction manager wanting to use an extension that protruded more than what had been anticipated. The response from the architect does not survive in the archive, but from

7 In the Università Iuav di Venezia, Archivio Progetti, fondo Giancarlo De Carlo there are eight 1:50 scale floor plans for Casa Ceccarelli in Bologna, marked by the following progressive numbers in the original order: floor plans (78/1150-78/1153); sections (78/1154, 78/1155); facades (78/1156, 78/1157) dating from a second draft of the project from 24 March 1962 and updated on 9 April 1962.

8 Università Iuav di Venezia, Archivio Progetti, fondo Giancarlo De Carlo. Letter from F. Ceccarelli to G. De Carlo, written in Milan on 10 April 1988.

9 See D. Pisani, "La città come la casa, la casa come la città. Breve storia di un topos", in *Territorio*, 88 (2019): 157-163.

the perimeter of the current roofs it can be deduced that nothing was changed and the original solution was maintained. In the same letter there is very positive feedback on the last stages of the construction, including the comment that the house "is very elegant and the first to be truly pleased with it are the masons who are building it. The supervisor told me that he even comes to see it on Sundays, 'as if it were a beautiful woman'".[10] The building was completed in May of the same year, and the family moved in shortly after the summer.

Next, it was time for the trees. After planting a birch near the entrance to the garden to celebrate the birth the daughter Paolina, countless other species followed, all with tall trunks, planted in generous numbers to solidify the downward slope and to create a small grove, which would spread over time, also extending toward the uncultivated fields nearby. The growth of these trees (cedars and beeches, but also ginkgo bilboa and white poplars) added a rhythm to the seasons of the house and helped soften its presence in the landscape. Today, their tops rise above the roof, shading the outer walls during the hot summer months and providing shelter to many species of birds. The branches intertwine with the walls of the house, revealing its entire organic structure carefully grafted onto the hilly environment. Finally, the greenhouse is situated in a corner of the garden, shifted from the original position where De Carlo had planned it (next to the house, near the kitchen). This small, transparent building is also worth mentioning, not so much for its formal characteristics as for the materials that were used to make it. In fact, the structure consists of the metal from the construction of the radio telescope in Medicina, some of whose evocative fragments were transplanted into the house's garden to underscore the emotional link between those two places.

De Carlo never had the opportunity to see the house in the following years and his growing commitments kept him from following its developments, at least until 1988, when, after my father's death, I had the chance to write to him and tell him about my personal experiences of living in the house. The memory of the project moved him greatly, and he declared that it had been "a flagrant case of a project-process, or in other words, of architecture"[11] and regretting that he had lost most of the working materials because of certain iconoclastic choices he had made: "at some point in my life, out of fury with the custom of circulating every sketch ever made in contemporary architecture, I destroyed a good third of my archive. This includes the house in Via di Casaglia, and so I no longer have any drawings or photos".[12] Fortunately, however, some of the plans have re-emerged, and with them the satisfaction with a job that, almost for fun,

10 Università Iuav di Venezia, Archivio Progetti, fondo Giancarlo De Carlo. Letter from F. Ceccarelli to G. De Carlo, written in Bologna in March [1963]: "è molto graziosa e i primi ad essere veramente felici sono i muratori che la costruiscono. Il capo mi ha detto che se la viene a vedere anche la domenica, 'come se fosse una bella donna.' ".

11 *Ibid.*, Letter from G. De Carlo to F. Ceccarelli, written in Milan on 10 September 1988: "un caso flagrante di progetto-processo o, in altre parole, di architettura".

12 *Ibid.*, Letter from G. De Carlo to F. Ceccarelli, written in Milan on 10 April 1988: "A un certo punto della mia vita, per furore verso quell'uso di mettere in circolazione ogni schizzo che è dilagato nell'architettura contemporanea, ho distrutto un buon terzo del mio archivio. Nella distruzione è incappata anche la casa di via di Casaglia e perciò non ho più né disegni né foto".

De Carlo had been very enthusiastic about and found to be successful: "I had designed his/your house with affection because I really liked and admired Marcello and enjoyed your family. The windows had been carefully calculated, and now knowing that you have elaborated on this calculation and have expanded on it with external and internal perspectives [...] has given me the sense (unfortunately rather rare, I have to say) of having done something that turned out well".[13] I was touched to hear that my feelings for those spaces aroused in him "the discovery of a part of myself through the feelings of a person who experienced it",[14] confirming once again, as if it were even necessary, how important participating in the definition of one's own living space was for him. And I also understood why De Carlo, according to a family legend, never wanted any payment for designing our house. He had done it out of fun, friendship, or maybe just for the pleasure of finding out how this story would end.

13 *Ibid*. "La s/tua casa l'avevo progettata con affetto perché avevo grande simpatia e ammirazione per Marcello e mi piaceva la vostra famiglia. Le finestre erano state accuratamente calcolate e adesso sapere che hai elaborato ulteriormente questo calcolo e hai arricchito di prospettive esterne e interne [...] mi ha dato il senso (assai raro, devo dire, purtroppo) di aver fatto una cosa che è andata a segno".

14 *Ibid*.: "il ritrovamento di una parte di me stesso attraverso i sentimenti di una persona che ne ha fatto esperienza".

1

Fig. 1
Marcello Ceccarelli

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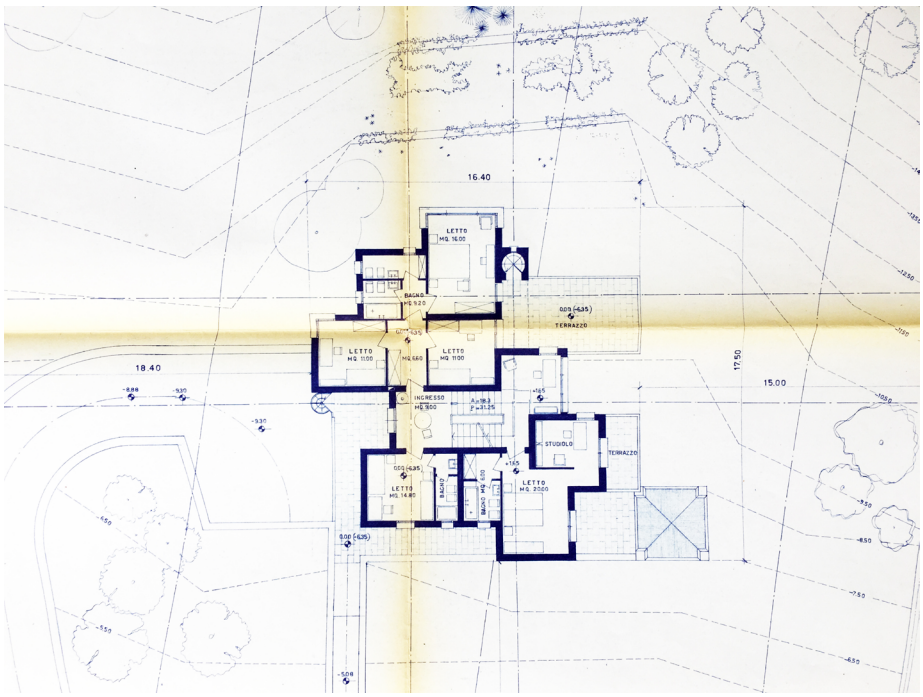
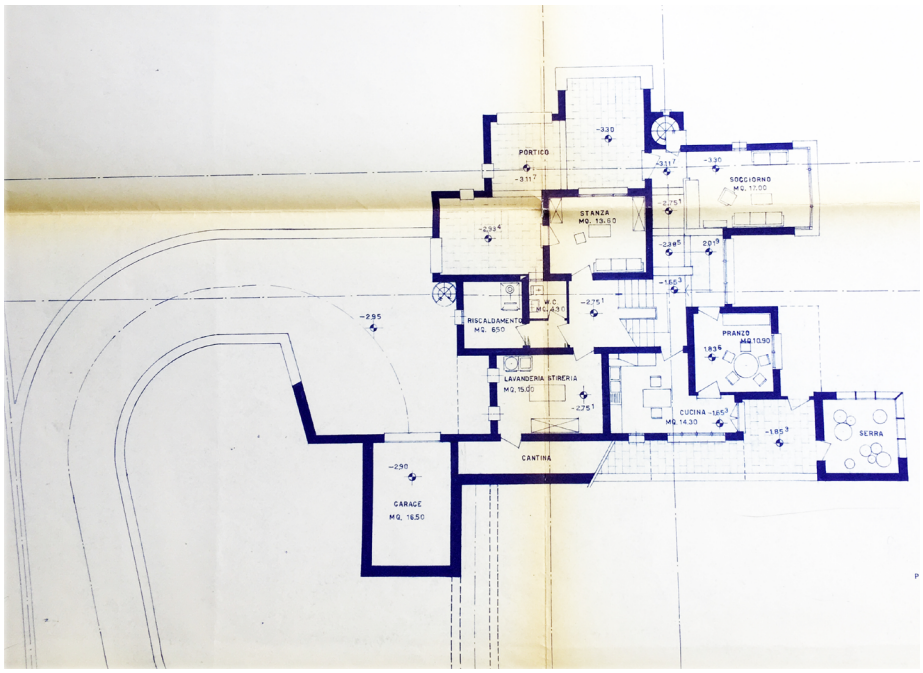
Fig. 2
The Medicina Radio
telescope (Ph. Paolo Monti)

3

Fig. 3
Ceccarelli House (1963)



4



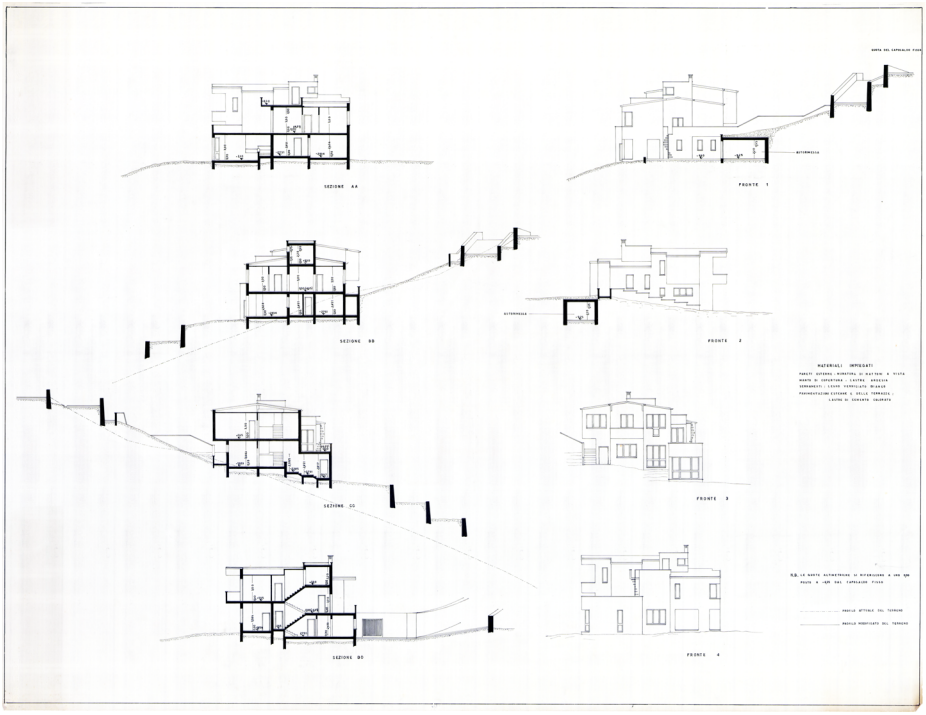
5

Fig. 4

Ceccarelli House, plans of the lowest levels in the solution of the first project (1961-62)

Fig. 5

Ceccarelli House, plans of the uppers levels in the solution of the first project (1961-62)



6

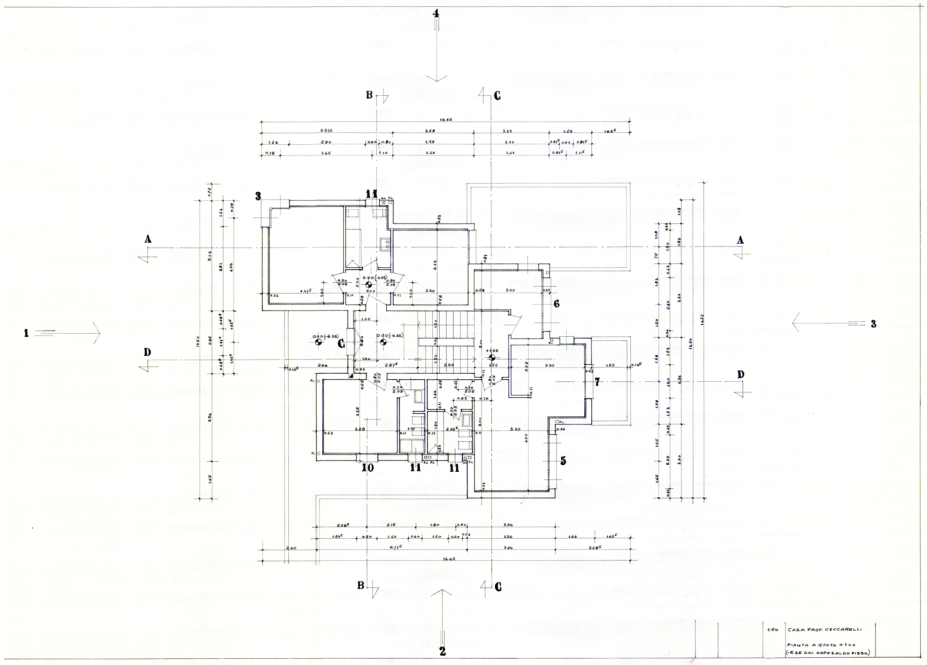


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Fig. 6

Ceccarelli House, elevations and sections of the definitive project (1962)

Fig. 7

Ceccarelli House, plans of the lowest levels of the definitive project (1962)

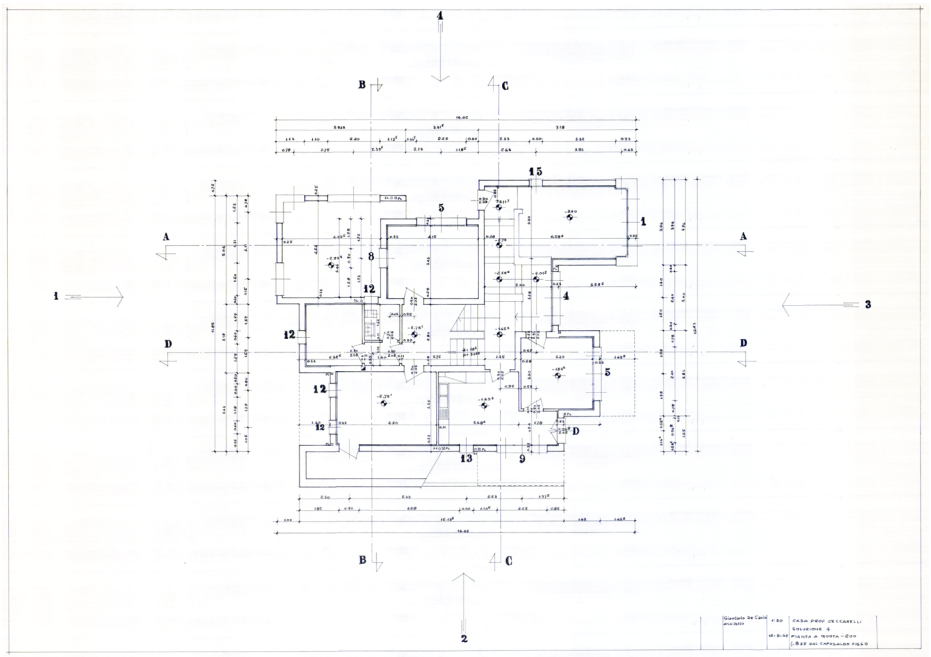

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Fig. 8

Ceccarelli House, plans of the uppers levels of the definitive project (1962)

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Fig. 9
Ceccarelli House (south elevation)

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Fig. 10
Ceccarelli House (interior)