

RESEARCH ARTICLE

White Whale: The Aquarium and Reptile House at the Turin Zoo and the Architecture of Enzo Venturèlli (1955–1965)

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In Enzo Venturèlli's architectural oeuvre, the relationship between his overlooked built work and his better known drawn and written production is problematic and currently under-studied. Venturèlli's design of the *acquario-reptilario* (aquarium and reptile house) (1958–60) for the Turin Zoo appeared midway through his career, part of the architectural milieu of the mid-1950s in which the zoo itself was conceived. This article analyses the building's history and design within the context of Venturèlli's writings, projects, exhibitions and contacts with artists and architects between the late 1950s and early 1960s. The *acquario-reptilario* constitutes a significant case for reconsidering Venturèlli as both a radical architectural theoretician and a practising building designer.

Introduction

Over the past 30 years, the production of the Turinese architect Enzo Venturèlli (1910–96) has been the object of significant scholarship, including two monographs (Marchiando Pacchiola 1992; Parenti and Mistrangelo 1999) and a few articles (Gabetti, Isola and Camerana 1993; Perlo 2007; Setti 2017). The chief focus of these works has been Venturèlli's theoretical and formal search, primarily conducted through his drawings and writings, for an innovative architectural language, which the architect called *architettura nucleare* (nuclear architecture). At the same time, the relationship between Venturèlli's architecture on paper and the intense building activity that he carried out in and around Turin between the 1950s and '60s has been somewhat ignored. As a result, Venturèlli is today generally known as an artistic producer of eclectic and utopian visions, rather than an architectural practitioner in post-war northern Italy.

This paper proposes a re-evaluation of Venturèlli's production by focussing on his built work, an under-studied component of his historiography. By making extensive use of primary sources, such as working drawings, final designs, correspondence, notes on exhibitions, publications and articles, all held at the archives of Enzo Venturèlli (AEV),¹ the paper proposes a realignment of Venturèlli's architectural theories alongside the booming building industries, the fertile artistic milieus and the problematic social context of Turin between the late 1950s and the early 1960s. While Venturèlli's notion of nuclear architecture was chiefly elaborated visually and circulated in art exhibits and publications, this paper argues that the

acquario-reptilario offers the rare case where the architect's sculptural vocabulary coincided with the construction of an efficient and meaningful public space, making the *acquario-reptilario* the most effective embodiment of Venturèlli's nuclear architecture.

The Zoo and the Architecture of 1950s Turin

In January 1955, a short article in the local newspaper *La Nuova Stampa* announced the construction of a new public zoo in the northern Italian city of Turin:

So un-picturesque is contemporary life in a big city, so tedious and monotonous are its days despite the tumultuousness of extraordinary things and events ... that the idea of elephants and tigers, of bears and pythons, of monkeys and marabous along the banks of the river Po, has awakened in everyone, young and old, content fantasies tinted with exoticism. ('Si cerca un giardino', 1955)²

As this passage evidences, the animal park offered a significant answer to the routines of an emerging modern city during the industrial boom of Italy's economic miracle, of which Turin's automobile manufacturing was the epicentre. Over the 1950s, the Fiat car factories in Mirafiori grew to around 85,000 employees, with production increasing sevenfold throughout the decade (Musso 2002). With a social climate centred around an expanding culture of mass production and consumption, the fascinating atmosphere of a zoo was above all a relief valve for an increasingly fragmented urban population, which by 1960 had nearly doubled, as well as a counter to the 'un-picturesque' urban conditions of 'the Italian Detroit', with its suburbs similarly sprawling uncontrollably (Papuzzi 1993: 35).

Largely a non-recoupable investment, the public zoo was itself a quintessentially post-war product, becoming during the 1950s one of the most successful popular entertainments in Europe (Baratay and Hardouin-Fugier 2002: 201–3).³ In Turin, the zoo was born out of a public-private enterprise between the city and the Società Molinar, a renowned animal retailer founded in 1885. After a decade of failed attempts at building their own zoo in Turin, in 1954 the Società was assigned a 30-year lease for the grounds of the Parco Michelotti, a ‘quiet and a bit melancholic’ lot along the south-eastern bank of the river Po (Maschietti, Muti and D’Entrèves 1990: 47–95). The Società Molinar quickly followed up with a project by engineer Gabriele Manfredi, mostly consisting of concrete boxed enclosures and brick-and-mortar parallelepipeds (**Figure 1**).

The zoo was organised as an irregular and ‘naturalistic’ archipelago of enclosures, where visitors could freely walk among each species’ dedicated ‘island’: a sandy rush for the flamingos, a line of cages with conical roofs for the tigers and a rustic and elongated aviary. When the Turin Zoo opened its doors on 21 October 1955, more than 20,000 citizens visited the park on the first day and almost 35,000 during the following ten days, a success far beyond the expectations of its director, Arduino Terni. Presented by the local press as both ‘the smallest and the most modern in Europe’, the zoo was at the same time injected with traditional values, the latest iteration of ‘an ancient aspiration, dating back to the times of the seraglio of King Vittorio Emanuele II and the gardens of the Royal Palace’ (‘Inaugurato Sotto la Pioggia’, 1955). The contemporary European dimension of a zoo similarly revealed how controversial this typology could be for the Turinese middle class. Significantly, a more central riverside lot originally proposed in 1954 was quickly set aside: too close, in fact, to the ‘delightful, incomparable and so distinctive’ Turinese architecture

of the late-Renaissance church Santa Maria al Monte dei Cappuccini.

The dual nature of the zoological park, at once appropriate for a growing and mixed public and slightly uncomfortable for the local bourgeoisie, epitomised many Turinese mid-century architectural tendencies. Between 1946 and 1956, more than 3,000 new constructions haphazardly filled up the empty hectares of municipal grounds alongside factories and urban arteries towards the north and west (Chiorino et al. 2016: 15–18). At the same time, the search for a more sophisticated architectural language seemed to move along independent tracks. Next to unique spurs of originality, such as the well-known crusade of Carlo Mollino, the work of architects like Sergio Jaretti and Elio Luzi, Roberto Gabetti and Aimaro Isola and the group BBPR stood at the forefront of what Paolo Portoghesi and Reyner Banham identified as a ‘neoliberty’ tendency (Segura 2013). According to Banham, the architectural panorama of northern Italy was dramatically regressing into provinciality, in a desperate search for an aesthetic language of pre-war luxuries (Banham 1959). Buildings such as the Bottega d’Erasmus (1956), Casa dell’Obelisco (1959) and Palazzo Paravia (1961) embodied a rejection of the failed ideals of the modern movement through a stylish yet self-conscious attitude towards contemporaneity (Portoghesi 1958; Gabetti, Isola and Camerana 1993; Gabetti and Isola 1957a, 1957b; Tafuri 1982: 71–78) (**Figure 2**).

The culmination of the complex circumstances of Turin in the 1950s – between mass construction and the search for a bourgeois aesthetic – was the Expo Italia ’61, the international exhibition celebrating the centenary of Italian unity. The event seemed to offer an opportunity to turn the industrial face of the city into a new paradigm of public identity, thanks to the massive prefabrication of Pier Luigi Nervi’s Palazzo del Lavoro, the idealistic futurism of a monorail, the technological panoramas of a



Figure 1: The Turin Zoo in 1955 (Maschietti, Muti and D’Entrèves 1990: 72).

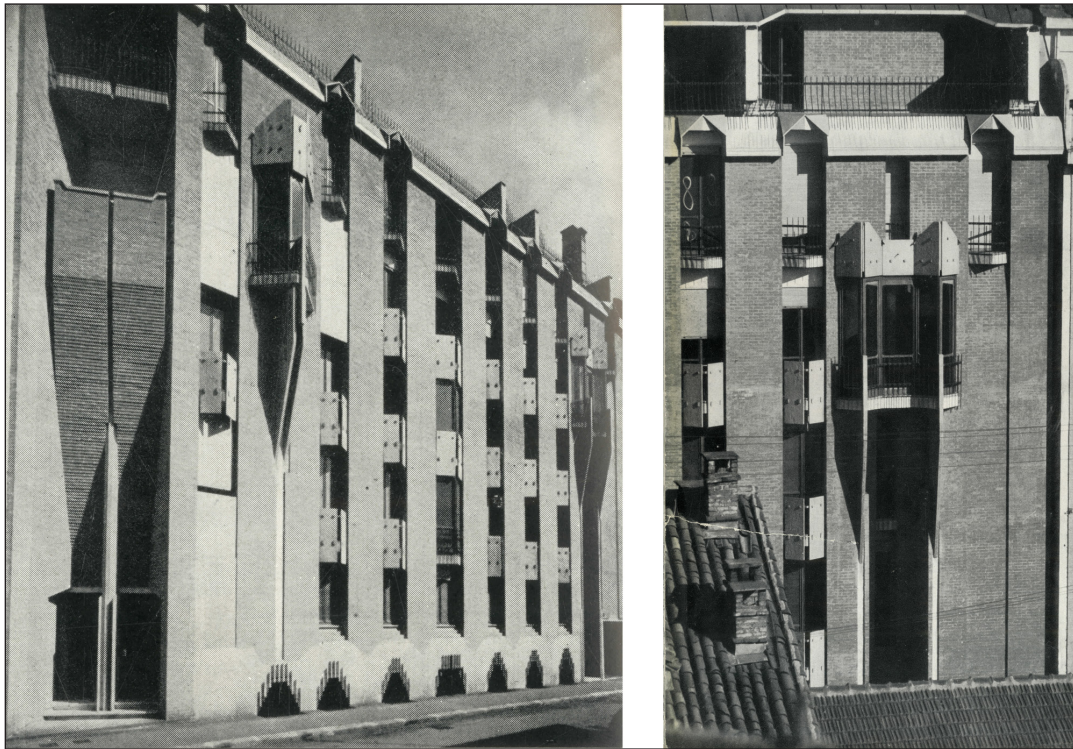


Figure 2: Roberto Gabetti and Aimaro Isola, Bottega d'Erasmus, Turin, 1956 (*Casabella-Continuità* 215, 1957: 62).

funicular and the dazzle of a Walt Disney circarama built by Fiat (Pace 2006). But the celebrations also seemed to ignore the country's true problems, such as an uncharted urban growth, a poor education system and north–south divergences. The scenographic uselessness of the event was perhaps best highlighted by Ernesto Nathan Rogers as 'A National Mistake' (1961: 1).

Both the elitist neoliberal rhetoric and the festive atmosphere of Italia '61 ultimately demonstrated the incapacity of Turinese architects to respond to a new and disaggregated social climate, marked by overpopulation, class instability and racism (Capussotti 2010). Instead, the architecture of the new zoo, distant from any sort of idealistic lyricism, nationalistic vocation or compositional debate, operated through paradigms of modernity more in tune with the dozens of city blocks appearing during the same years around the city's periphery. In the midst of Italy's economic miracle, within Turin's deeply fragmented social milieu and still in a problematic conversation with architectural contemporaneity, the construction of an animal park stood as possibly the most direct embodiment of a booming welfare system. In this sense, the unassertive primitiveness and anti-Tayloristic exoticism of its riverbank was a direct counterpoint to both the grandiose masterplan of Italia '61 and the melancholic tedium of the Fiat assembly line. As such, it could set the stage for an architectural experimentation of a more egalitarian creativity, a permanent public space void of ideology.

Enzo Venturelli: The Built and the Drawn

The completion of a first extension of the Turin zoo in autumn 1957 initiated a second development, consisting of an iconic centrepiece: the *acquario-rettilario*, the house containing aquatic animals and reptiles. Its architectural design was privately entrusted in 1957 to Enzo Venturelli.

Born Vincenzo in 1910, Venturelli graduated from Turin's Polytechnic in 1938 and opened his practice in 1942 as Studio Tecnico Costruzioni Edili Civili Industriali (Technical Studio for Civil and Industrial Building Constructions). In many ways, Venturelli was the archetypal product of post-war Turin. Rarely venturing outside the boundaries of his hometown, between the late 1940s and the mid-1950s he was busy with his Studio Tecnico in a vast array of building projects, mostly in the sectors of civil and industrial construction.⁴

The early built production of Venturelli's Studio Tecnico illustrates the typological and compositional possibilities that a booming economy could offer to the architectural profession: from the rationalist system of the cinema Principe, to the playful formal fragmentation of Villa Grassi and the workshop Bocca e Malandrone, to the sculptural aggregations of Casa Zublena and Cappella Berra (Parenti and Mistrangelo 1999: 51–53; Zevi 1956: 112–13). However, more notable than his built production has been the architect's theoretical articulation of an architecture 'of the nuclear age', or nuclear architecture, a new stream of formal languages developed from around 1953 (Parenti and Mistrangelo 1999: 23–29; Perlo 2007: 5; Setti 2017: 15–20). For Venturelli the failures of modernist architecture were to be defied through the establishment of unprecedented gestures, representing 'the poetic, cultural and spiritual necessities of the age we live in'. The transcendence of a saturated 'comfortable building system of abused linear and plain boxed forms' was counteracted by free compositions of lines and shapes, 'a spectacle of beauty which will uplift the spirits' (Venturelli 1958a, 1958b: 144–45). Accordingly, his early drawn projects were supposed to establish a new 'aesthetic function' for architecture, like his design for a TV station in 1952, a pyramidal structure of fuse-looking

blocks topped with eyeball-shaped rooms (Venturelli 1958a) (Figure 3).

Venturelli's reconsideration of modernist ideologies was evidently in line with an international search to redefine the premises of the modern movement during the 1950s. But his search for a nuclear architecture did not seem to explicitly come from the building world. Only recently has it been recognised that the origin of Venturelli's ideas should be located in the resurgent milieu of northern Italian visual arts and sculpture (Setti 2017). During the 1950s Milan and Turin saw the rapid emergence of a vibrant international network of painters and sculptors, such as Luigi Spazzapan, Mattia Moreni and Umberto Mastroianni, and private art dealers, breaking from the conformism of the pre-war period and effectively reinstating a market for the avant-garde (Bourel 1993: 122–27; Poli 2007: 94; Fratelli and Rusconi 1994: 592–98). Following Milan as the capital of artistic debate, in the second half of the 1950s Turin became itself a fertile hub of creative exchange. Here, curator Michel Tapié was proposing an anti-academic 'art autre', inviting artists to develop their own individual voice and facilitating exhibits at La Bussola and other art galleries. It was also in Turin where in 1960 Tapié, together with Roman architect Luigi Moretti and goldsmith Ada Minola, founded the International Center of Aesthetic Research (ICAR). The public culmination of a season of artistic upheaval was the opening of the GAM, the Galleria d'Arte Moderna in 1959, after the innovative designs of young architects Carlo Bassi and Goffredo Boschetti.

Venturelli, who 'liked to consider himself an artist, alongside other artists', was close to this milieu (Gabetti, Isola and Camerana 1993: 71). One of his earliest influences was the Arte Nucleare movement, born around 1950, and in particular the circle of Milanese painter Enrico Baj (Setti 2017: 17–18). Like Baj, Venturelli embraced the idea of the 'nucleus' to create a radically dynamic and counter-mannerist art. Transforming a nuclear power from a paradigm

of destruction into one of artistic creation could establish a deeper and more substantial relationship between art and a rapidly changing society. It was by reinvigorating expressive freedom through the channels of the nuclear age that a work of art could effectively move beyond the rigidities of the pre-war period. Along with Baj, from the early 1950s Venturelli also became close with Luigi Spazzapan and, more importantly, the sculptor Umberto Mastroianni.⁵ In 1953, Mastroianni commissioned the architect to design the sculptor's own *casa-studio* (studio-house) on the hillside of Cavoretto, a building that soon became Venturelli's foremost nuclear architectural statement. The building consisted of an L-shaped two-storey concrete block overlooking the city, with a brick-clad ground floor and topped with a prominent cantilevered volume, clad with geometrical shapes and asymmetrically shaded protrusions. Two distinct blocks hosted, to the west, an exhibition space and the studio for the sculptor and, to the east, on a lower level, services and living quarters (Figure 4).

Despite having been described as a 'new way of conceiving space' (Parenti and Mistrangelo 1999: 20), at the time Casa Mastroianni was dispassionately welcomed by architectural critics, who interpreted it as nothing more than a superficial attempt at creating something visually striking. For Bruno Zevi, concerned as he was with the 'organic' qualities of architectural space, Casa Mastroianni existed only in its two-dimensional 'façadism', and its 'super-banal' plan betrayed the weak, skin-deep intentions of its exterior (Zevi 1956). The unconvincing expressionism of Venturelli's other early projects, such as the workshop Bocca e Malandrone or Casa Zublena, confirmed the verdict. With articles in both *L'Architettura cronache e storia* (*L'A*) and *L'Espresso*, Zevi quickly threw Venturelli's 'schizophrenic' buildings into the hotchpotch of an 'irrational Turin' that epitomised the symptoms of a widespread crisis (Zevi 1956, 1978a).

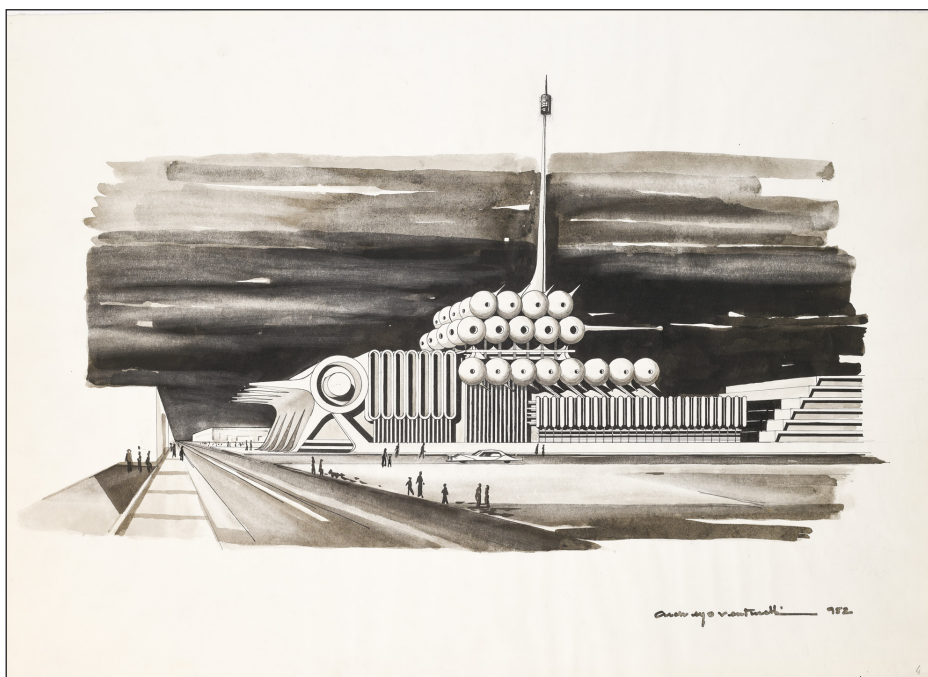


Figure 3: Enzo Venturelli, drawing for Stazione Radio-Telesiva, 1952. AEV c.1/c.4 © Archivio di Stato di Torino.

Despite a generally moderate reception from the architecture world, Casa Mastroianni acquired some public notoriety, mostly for an unusual and 'curious' taste ('Architectural Curiosities', 1955). More importantly, it succeeded in providing Venturelli with a significant entry point into the artistic milieu of northern Italy (**Figure 5**).

His creative relationship with Mastroianni culminated in 1969 with the Monument to the Italian Resistance in Cuneo. In 1958 and 1959 Venturelli also presented to the public his visions for a nuclear architecture in an itinerant exhibition. Inaugurated in April 1958 at the Office National Italien de Tourisme in Paris as *Architecture du temps nucléaire* [Architecture of the Nuclear Age], the exhibit included sketches and models for housing blocks, villas, churches and public buildings embodying his vision for the built

environment of the future. For the occasion Venturelli also outlined his nuclear ethos in a pamphlet entitled *Manifeste sur l'architecture*. In May the exhibit was moved to the exhibition hall La Stampa in Turin and in June it landed in Milan, at the art gallery Selezione. Finally, the following year Venturelli exhibited his nuclear architecture once more at the Circolo degli Artisti (Artists' Circle) in Biella.

By the 1950s Venturelli's work, it appears, embodied the contradictory realities of Turin's building industry, where both intense and fast large-scale housing coexisted with the contemplative artistic individualism of small private projects (Papuzzi 1993: 36). In fact, at this time Venturelli's Studio Tecnico was making a decent profit with a portfolio of large built projects, mostly neglected in the two monographs on the architect (Marchiando Pacchiola



Figure 4: Casa Mastroianni, 1955. AEV b.12 © Archivio di Stato di Torino.



Figure 5: Enzo Venturelli (left) and Umberto Mastroianni (right) at the construction site of Casa Mastroianni, circa 1955. AEV b.12 © Archivio di Stato di Torino.

1992: 15–23; Parenti and Mistrangelo 1999: 45–49). In 1956 his office completed the Gilardini building, a ten-storey housing block just next to Mirafiori. Between 1957 and 1959 it realised another large apartment building in Corso Trapani, a few blocks from the Lancia car factories (**Figure 6**), followed in 1960 by the Cappella Camandona at the cemetery (AEV c.8, c.7/c.16).

While a search for formal expression through composition was evidently present (especially in the three-dimensional striped façade of the Gilardini building), Venturelli himself never made a connection between what he drew and what he built. His theoretical production and exhibitions solely comprised drawings and schemes, dramatic sketches and views evoking a parallel world of nuclear buildings. With the exception of Casa Mastroianni, all other constructions built by the Studio Tecnico never became part of Venturelli's formal venture and were instead silently carried out around the growing peripheries of Turin. Even Casa Mastroianni did not really get to be a full-grown nuclear body, but remained its sculptural sneer. In his notes Venturelli himself admitted that the building 'for economic reasons and for the needs of the client ... was not able to fully reach the intentions of its designer' (AEV b.12/f.1).

Venturelli's exhibitions and writings, together with Casa Mastroianni, acted above all as powerful instruments in establishing international connections with artists, universities and prospective clients (Parenti and Mistrangelo 1999: 45).⁶ During the late 1950s, it was through this network that a new opportunity arose for Venturelli to practically experiment with an expressive language, which, as it will be argued, could bridge the gap between the real and the imaginary.

Moby Dick

Casa Mastroianni, completed just a few months after the inauguration of the Turin Zoo in 1955, was most probably how Venturelli became known to the Società Molinar, an economically strong business in search of a memorable architectural investment in their park. For the first expansion of the zoo in 1957, Venturelli was commissioned to build the

giraffe and elephant houses. The building, a symmetrical assemblage of concrete cubes, curiously resembled those same 'plain boxed forms' which just one year later Venturelli would so vehemently reject in his *Manifeste* (**Figure 7**).

In 1958, however, he designed a monumental entrance to the zoo, the refurbishment of the Molinar pet shop (neither of which materialised) and was put in charge of the *acquario-rettilario*. It was with the strict and unusual typology of a zoological building that the occasion arose for Venturelli to fully explore the architectural expression of his nuclear research.

Venturelli's first designs for the *acquario-rettilario* were presented to the municipality in January 1958. In late 1958, after a year-long negotiation on ownership and management,⁷ the project was approved. Construction began in early 1959 after Venturelli elaborated his final designs. With costs for construction quickly growing to more than 100,000,000 liras (around €1,300,000), the *acquario-rettilario* was Molinar's biggest financial investment. The building was supposed to stand out as a true paradigm of modernity, efficiency and attractiveness. Already in 1948, the first failed project for a Molinar zoo consisted of a rectangular aquarium of 4,000 square meters, topped with a gigantic elliptical, domed, glass reptile house (Maschietti, Muti and D'Entrèves 1990: 62–63). When Venturelli's building was inaugurated on 28 May 1960, its appearance was perceived as almost prophetic, 'the most beautiful' and 'the most rational, complete and modern structure existing in Europe, to serve as a model for future similar constructions' ('L'Acquario', 1959; 'Un Fantastico Palazzo', 1959).

The programme of the *acquario-rettilario* was entirely new for Venturelli, as it would have been for any other Turinese architect. Venturelli's organisational solutions referred to the aquariums in Munich (1937) and Frankfurt (1957), which he had visited, along with the zoos in Berlin and Basel, during the summer of '58, filling a notebook with sketches of their architectural technologies (AEV b.14/f.1). Venturelli's design consisted of a 'basilical' layout, a feature clearly visible in the plans (**Figure 8**).

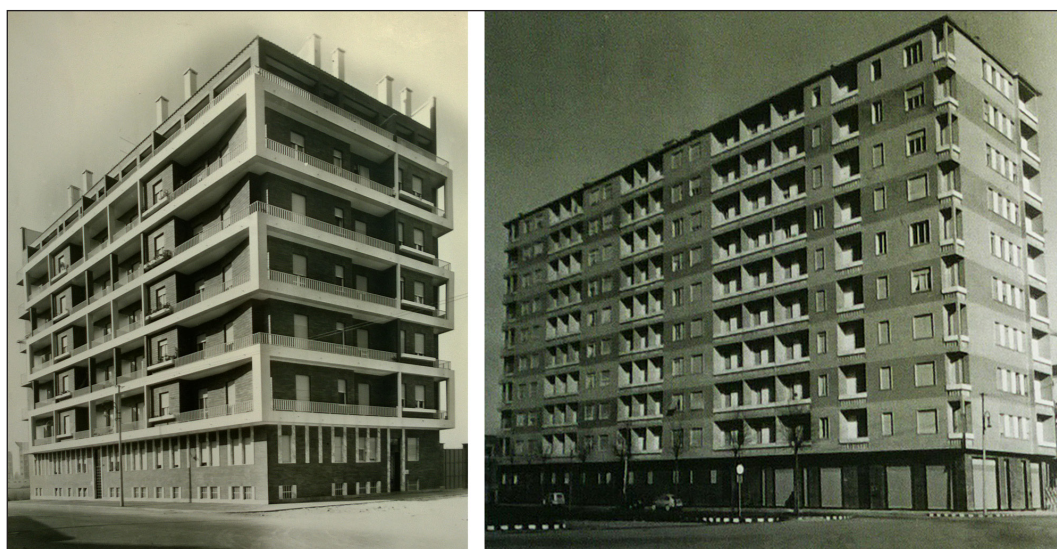


Figure 6: Two buildings by Venturelli: the Gilardini building at via Tripoli and via Ogliaro, 1956, and a building at via Trapani and via Lancia, 1959. AEV b.20 © Archivio di Stato di Torino.



Figure 7: Elephant and giraffe houses at the Turin Zoo, 1957 (Maschiotti, Muti and D'Entrèves 1990: 92).

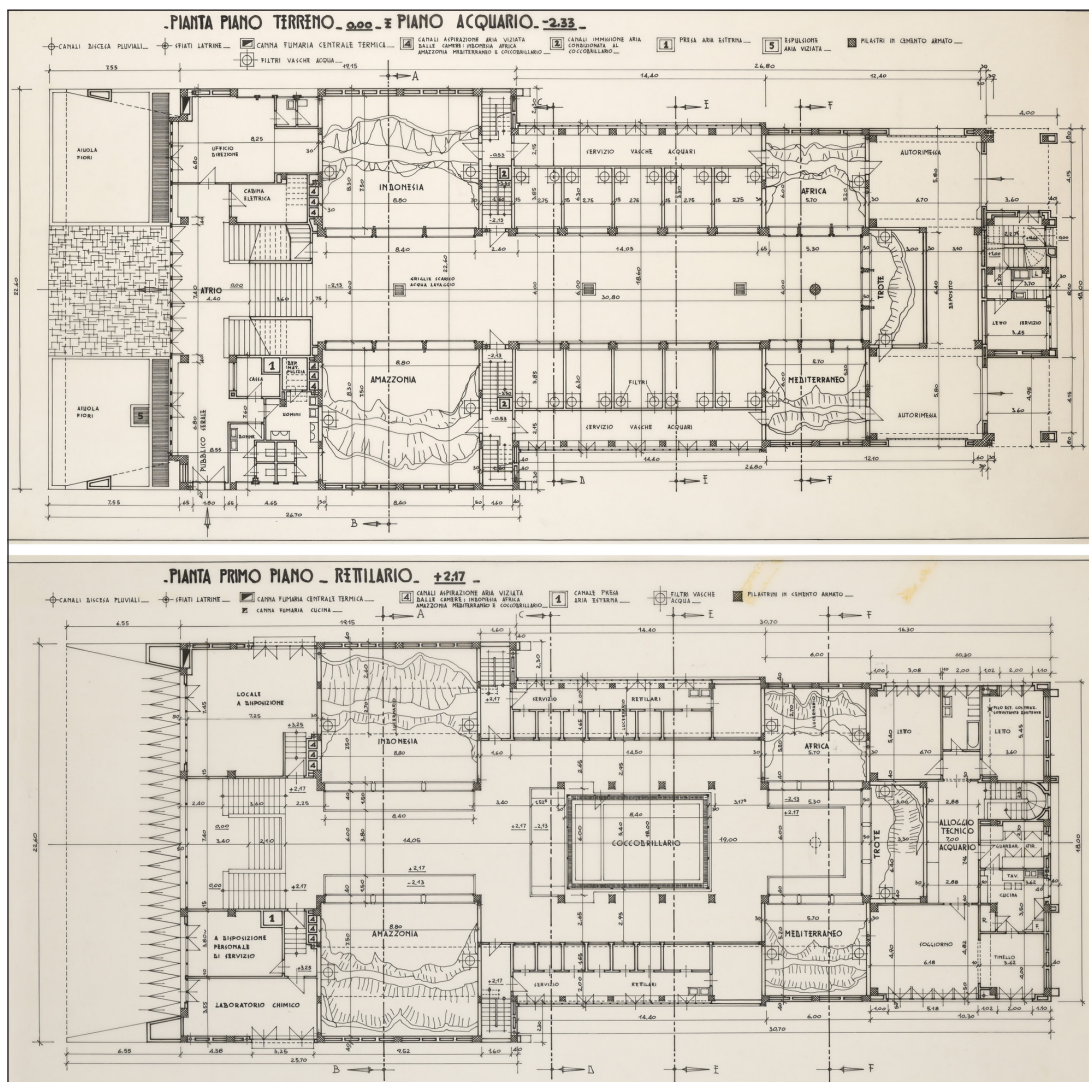


Figure 8: Enzo Venturilli, plans of the first and second floor of the *acquario-rettillario* at the Turin Zoo, 1958. AEV c.3/c.1 © Archivio di Stato di Torino.

A fully symmetrical arrangement was established axially along a central 'nave', with the front entrance of the building shaped into a larger 'transept'. This established the longitudinal articulation of the building, with sequences of pools located along the three sides of a central space. The surface of the building, nearly 1,000 square metres, was organised on two levels, connected by a large staircase at the entrance. The building was then articulated through a sequence of visually diverse dioramas, to provide the public with a fully immersive experience of 'real' wildlife environments at different latitudes, a typical paradigm for post-war animal parks. On the main floor, set below ground level, ten pools for the aquariums were placed along the sides, while on the upper floor all reptile cages were located along a flying bridge and around the suspended central case for the crocodile, a raised concrete platform weighing up to 2,000 kg/m². Finally, five giant glass cases were placed around the entrance and at the back of the building, housing continental climates, which could be observed from both levels. A chemical laboratory, administration offices, an exhibition room and common

rooms for personnel were at the front of the building. At the back, the house for the director was an independently accessed two-storey C-shaped block adjacent to the African, Mediterranean and Alpine cases.

The typology of the *acquario-rettilario* dictated a corresponding network of service spaces to manage its complex mechanical systems. The building's transversal sections reveal two sets of hidden corridors and staircases running along the sides and granting access to the back of all animal tanks (Figure 9).

These were connected through the basement, which stored the bulky equipment necessary to power the complex infrastructures of the building, such as a giant control unit, 9 by 5 square metres, for heating and cooling, water supply and drainage, insulation systems and ventilation ducts. In a way, the building operated largely as a machine, both in its distribution and in its hidden technologies. Indeed, the production and control of its artificial ecologies was paramount. Water was pumped directly from the nearby river, purified with two giant filters and run through specially designed under-floor heating and

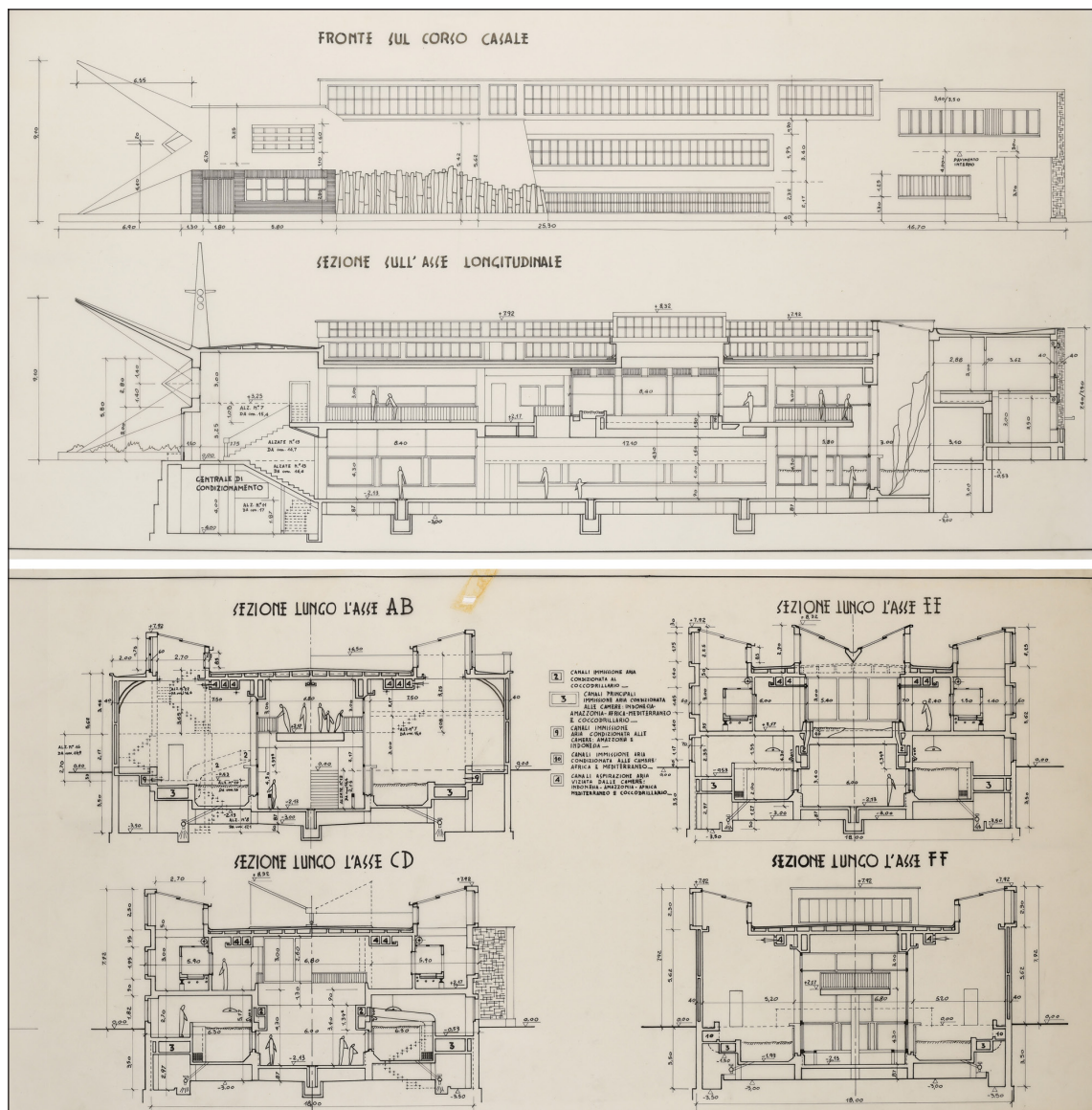


Figure 9: Enzo Venturelli, side elevation and sections of the *acquario-rettilario* at the Turin Zoo, 1958. AEV c.3/c.1 © Archivio di Stato di Torino.

cooling systems; air conditioning regulated humidity and heat in all cages; special coloured lamps reproduced sunlight at dawn and dusk; and complex systems of waterfalls and artificial rains mimicked different tropical conditions. The symmetry and rigour of the building's internal layout was enhanced by the choice of limited materials, glass being the most important: small and large windows for pools and biologic chambers allowed for an immersive visual experience, and a system of skylights parallel to the roof provided zenithal illumination to the four giant reptile cages. White plaster was adopted for most of the surfaces, with rough gravel added for portions of the walls and columns, marble tiles for the entrance staircase and stoneware tiles for the pavements (**Figure 10**).

Finally, the building was intended to provide a memorable image of the zoo. This explains the total compositional freedom granted to Venturelli by the Società Molinar (Parenti and Mistrangelo 1999: 46–47). The uniformity of white plaster, covering the majority of the building's external surface, was somewhat haphazardly interrupted by lateral cladding and by the stone and wooden panelling for the director's house at the back. Venturelli's design then culminated in a great sculptural entrance, attached to the building and completed with a sharp bell-tower-like chimney at the front (**Figures 11 and 12**).

This entrance 'mask' consisted of a concrete cantilevered roof, 9.5 metres high, tilted forward and supported by two giant concrete legs, standing to welcome and 'devour' its visitors as a biomorphic 'mouth'. A 22.5-metre-long line of pyramidal metallic *brise-soleil* on the first floor formed the 'teeth'. Reminiscent of a whalebone or a caiman carcass, Venturelli's expressive expedient has been associated over the years with both Melville and Collodi, at once as compelling and as prosaic as it could be ('Acquario-reptilario', 1961; 'Acuario y Reptilario', 1965; Magnaghi, Monge and Re 1982: 165). In this sense, the building's extensive size, symmetrical composition and abstract plasticity could not have been more different from the rest of the zoo's naturalistic, sober and mimetic setting. Located just next to the entrance to the park, the *acquario-reptilario* offered visitors the monumental image of an autonomous typology, operating through its own functional and linguistic lexicon.

Indeed, the *acquario-reptilario* was appreciated internationally for its amusingly expressive façade and immediately became associated with its biomorphic vocation (**Figure 13**). However, by successfully engaging with its highly technical programme, Venturelli succeeded in deploying the playful, personal interpretation of a rigorous and rather exceptional programme. Given its internal spatial efficacy, the *acquario-reptilario* was partially



Figure 10: Interiors of the *acquario-reptilario*, 1960: entrance hall, central corridor on the ground floor and raised crocodile cage. AEV b.20 © Archivio di Stato di Torino.



Figure 11: Side of the *acquario-reptilario*, 1960. AEV b.20 © Archivio di Stato di Torino.

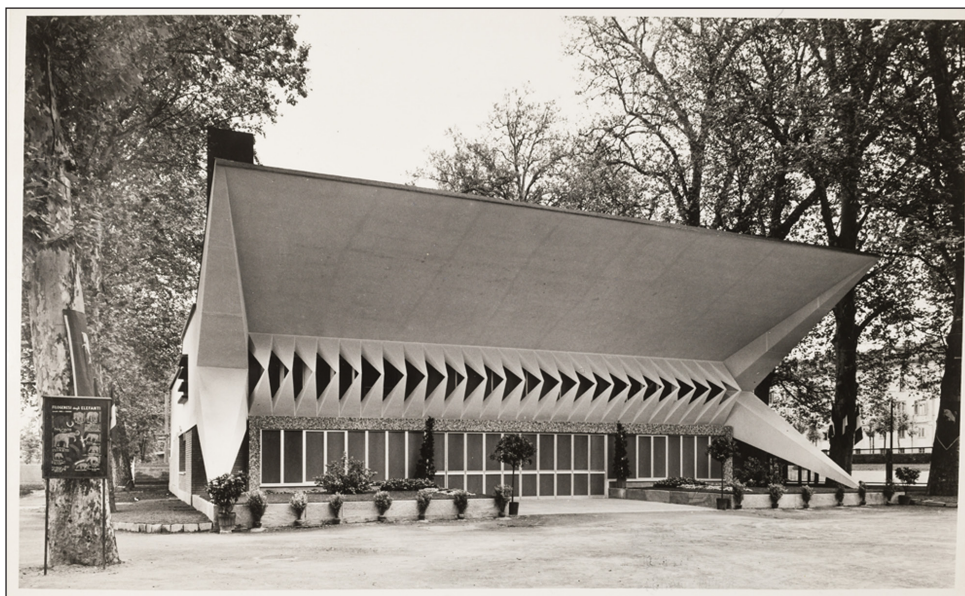


Figure 12: Front of the *acquario-rettilario*, 1960. AEV b.20 © Archivio di Stato di Torino.



Figure 13: The *acquario-rettilario* presented in the journal *Informes de la Costrucción* (1965: 21).

convincing even for Zevi. The team at *L'A* had to re-examine their previous judgements, shaped by the contradictory container-contained dialectics of Casa Mastroianni. Whereas Venturi's previous attempt constituted 'a violent act, stagnantly anarchic and conformist' (Morgan 1961: 814), the *acquario-rettilario* featured precise solutions to fascinating problems. Venturi's capricious

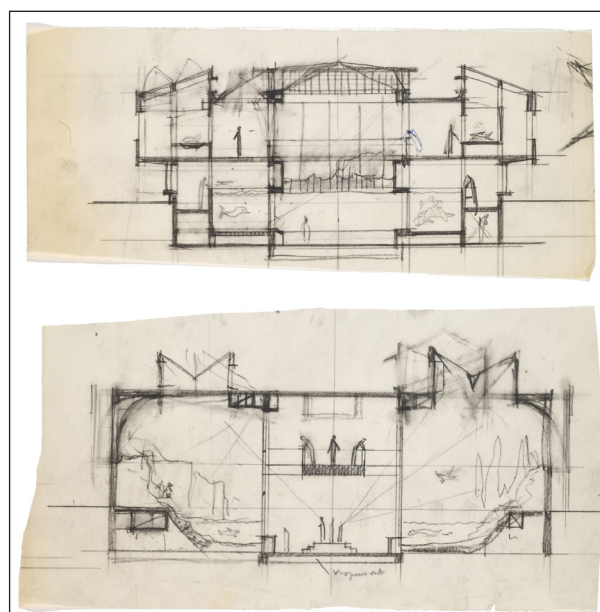


Figure 14: Enzo Venturi, section sketches of the *acquario-rettilario*, circa 1958. AEV b.14/f.10 © Archivio di Stato di Torino.

canopies could have been at once 'more free and less extrovert: therefore more coherent'. However, despite an evident compositional stiffness and symmetry, the building was in the end anything but banal. Its primary value lay in a combination of internal movement and structural expression, to the benefit of a dynamic spatial experience, elements which Zevi would later partly codify into his 'invariants' (Zevi 1950: 71, 1973: 29–50). As such, the building couldn't be understood just by examining its surface. To appreciate Venturi's true intentions, *L'A* reported, 'one needs to look at the sections'. In fact, Venturi's several working transversal sections, repeatedly sketched and erased in pencil on tracing paper during the early stages of the design, suggest that the external formal exercise of the *acquario-rettilario* was largely born from within (Figure 14).

The longitudinal layering of the three floors (basement, aquarium on a sunken main floor and upper-floor reptile house) was arranged by transversally fitting viewing areas, animal enclosures and service spaces in a compact articulation of pools and cages, elevated paths and hidden corridors. Unlike the predictable spaces of Casa Mastroianni, the rigorous constructive and technical logics of the animal museum concurred more cohesively with its cinematic intentions. In this sense, it is notable that the design and calculations for the building's concrete structure, including the 7.9-metre-long cantilevered roof for the entrance, was entirely managed by Venturelli's Studio Tecnico. The external roof was a 178.5-square-metre slab of concrete joists, rotated at a 25-degree angle and clad on the lower side with a plastered metal covering. In the end, the building's complex design evoked the only nickname that could embody at once the internal efficiency of the organism and the literal interpretation of its exterior: 'Moby Dick in Turin' (Morgan 1961).

By bridging a gap between programme and shape, between function and its sign, the building presented Venturelli's nuclear architecture through the most literal rendition of a metonymic narrative – that is, by literally turning the aquarium/reptile house into a whale/reptile. For the first and only time, the same figurative system guiding Venturelli's designs for berry-shaped villas and mitre-shaped churches were developed in built form (AEV c.1, c.2). As a result, while only vaguely expressed in his writings, Venturelli's dialectics between formal independence and logical consistency appeared to be more clearly articulated in the ironic shapes of the *acquario-rettilario*. The important 'aesthetic function' of architecture was

accomplished not only by means of artistic composition but by turning the entire building into the stage for Venturelli's nuclear research. Furthermore, the significance of the *acquario-rettilario* as a built object adds a further layer of interest to this argument. As will be argued, the building remained the most successful specimen of Venturelli's otherwise problematic position between architectural practice and artistic expression.

From Built Form to Visual Art

In October 1960, just five months after the inauguration of the *acquario-rettilario*, Venturelli published *Urbanistica Spaziale* [Cosmic Urbanism], now largely considered his most important achievement (Parenti and Mistrangelo 1999: 30-43; Marchiando Pacchiola 1992: 24–30; Perlo 2007: 4). Dedicated to contemporary urban regeneration and initially called *La città del Futuro* [The City of the Future], the book invited the city to embrace the dynamic energies of modern circulation flows. Venturelli imagined a cityscape of buildings standing on stilts, piles and pillars as *strutture a ponte* (bridge structures), in the midst of a sea of highways, speedways, platforms and elevated sidewalks and sanitised by a purpose-designed system of urban air-purifiers (Venturelli 1960) (Figure 15).

Venturelli developed his ideas for *Urbanistica Spaziale* mainly between 1958 and 1960, when he was also occupied with the design and construction of the *acquario-rettilario*. The conception and realization of the zoological building thus coincided with the most refined iteration of Venturelli's theories on nuclear architecture. Given this timely convergence and noting the technical and formal values of the *acquario-rettilario*, one may presume that

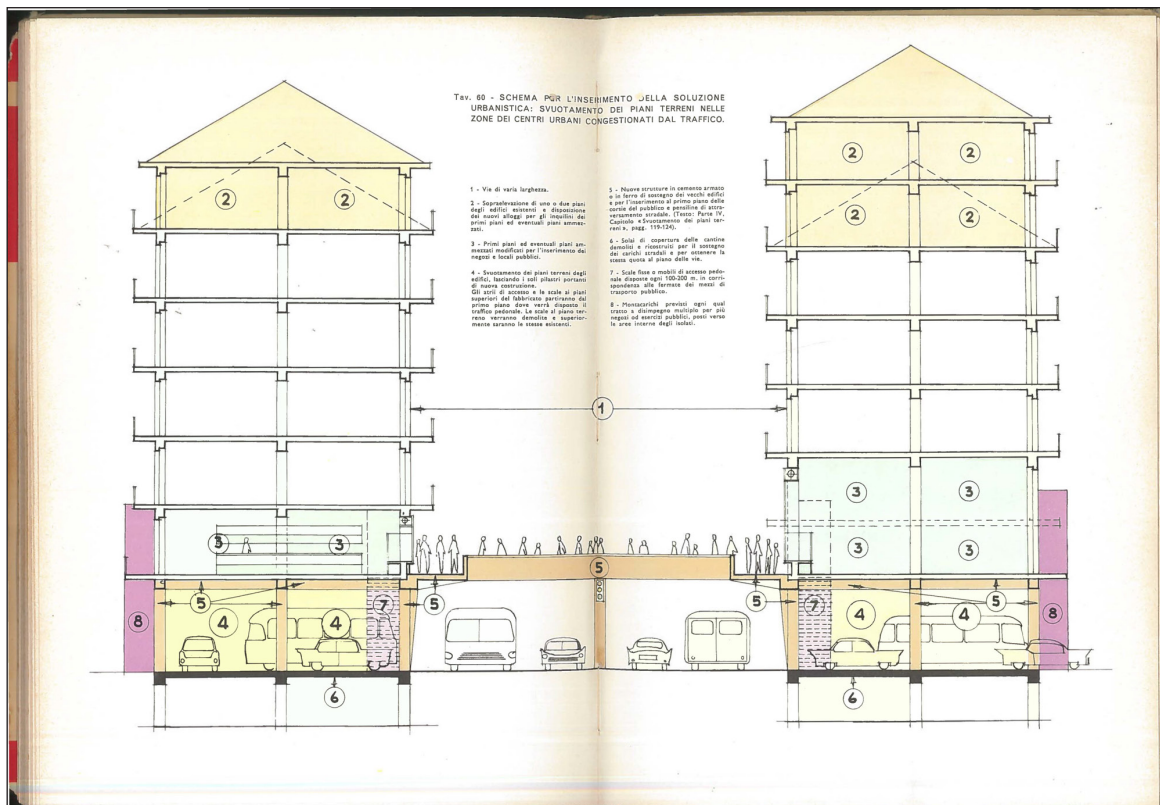


Figure 15: Enzo Venturelli, spread from *Urbanistica spaziale*, showing his plan to 'raise' existing buildings over the street level.

the building became, at least in part, an active component of Venturelli's nuclear discourse. But *Urbanistica Spaziale* did not refer in any way to the social significance of buildings such as the *acquario-rettillario*, embracing instead an idealistic and detached vision of cosmic urban realms. Only Casa Mastroianni was featured, in the preface of the book, alongside an apartment block in Bergeggi, near Genoa, and the British Pavilion for the Brussels Expo '58, as built examples evoking Venturelli's nuclear language.⁸ In this way, the architect further established his principles through the communicative nature of a collection of drawings.⁹ In fact, while *Urbanistica Spaziale* was chiefly presented through schematics on circulation, property and urban planning, Giulio Carlo Argan remarked in a personal letter to Venturelli that these 'solutions' entirely ignored the social dimension of the problem (AEV b.36/f.2). For Zevi, *Urbanistica Spaziale*, indicative of a diffused unawareness towards the true problems of the city, was simply 'the most disconcerting book' published in Italy around 1960 (Zevi 1978b: 360). Venturelli's utopian exercise echoed the aerodynamic lightheartedness of Googie architecture and its intrinsic playfulness and ungeneralizable singularity both fascinated and disturbed its readers (Bernardi 1961). By arguing for total practicability without really materializing it, the book revealed once more the unresolved dichotomy of Venturelli's own architectural enterprise, caught between the necessities of a building practice and a struggle for creative significance.

Indeed, from the late 1950s, as he was completing the *acquario-rettillario*, Venturelli was broadening his personal relations with artists, such as Lucio Fontana, and art critics, such as Umbro Apollonio and Michel Seuphor (AEV b.124).¹⁰ Importantly, *Urbanistica Spaziale* was produced by the publishing house Fratelli Pozzo which, from 1959, was dedicated almost solely to international artistic avant-gardes, thanks to its new editor, Ezio Gribaudo, art curator, architecture trainee and close friend of Michel Tapié. Venturelli's was one of the first volumes published under Gribaudo's new editorial plan, again suggesting a close affinity with the world of Italian art (Gribaudo 2016: 40–45).

Venturelli's individual track for artistic recognition continued in the 1960s, firmly kept separate from his building activity. In September 1962 he appeared alongside André Bloc in the exhibition *Lieu Théâtral, Lieu Culturel* at the Bibliothèque de l' Arsenal in Paris. Here Venturelli presented his project for a Teatro di Movimento Totale (Total Movement Theatre) with director Jacques Polieri (Venturelli and Polieri 1963). In the fall of 1963 Venturelli then took part in the itinerant exhibition *Sculptures Architecturales et Architectures Sculpture*, organised by Michel Ragon for the Paris Biennial at the gallery Anderson & Meyer in Paris, at the Maison de la Culture in Caen and at the Kunstkring in Rotterdam. Along with Bloc, Nicolas Schöffer, Antoni Gaudì and Eero Saarinen, Venturelli was featured as exemplifying a generation of architects whose explorations into the possibilities of architectural form could build a bridge into the realm of sculptural creativity.

In his magazine *Aujourd'hui. Art et Architecture*, Bloc had already presented Casa Mastroianni as an attempt at an 'architecture-sculpture' (Bloc 1956), reflecting a general interest of post-war architects to go beyond the purely functional and instead to embrace the experiential overtones of built form, a tradition echoing the expressionism of Sant'Elia.¹¹ Saarinen, for one, was internationally recognised for his experiments into the communicative potentials of shapes, often to the point of visual frivolity. When commenting on his MIT buildings completed in 1955, the severe Zevi noted how the separation of 'form from function' was the 'expression of an escape from reality', a comment which could have just as easily been directed to Venturelli's Casa Mastroianni or to his cosmic drawings (Pelkonen 2006: 84–85). However, for Venturelli a linguistic search for artistic meaning was never really meant to be matched by an equally structured and concrete set of built artefacts. Architecture's significance was not to be found in 'reality'; it was ultimately visual, even pictorial, and therefore essentially independent from the compromises of the building world. Already in 1956 he stated that 'in my nuclear architecture there are only forms' (AEV b.36/f.1). In other words, while certainly reflecting in some ways the widespread formal tendencies of post-war experimentation, through his expressive drawings Venturelli did not seem to really consider any implication for architecture, nor any potential for design.

Indeed, after the successful completion of the *acquario-rettillario*, the disparity between Venturelli's compositional inclinations as an author of 'forms' and the occupations of his Turinese Studio Tecnico developed further tension. During the late 1960s and early 1970s he completed an extension for the aquarium in Bari, Puglia (1965), a large restoration and extension project for the Grand Hotel at Sestriere sky resort (1973–76), some interior decoration and more funerary chapels in Turin (AEV b.14/f.18, c.3/c.6). In 1971 he also completed a large housing block, Carpegna Sabbadini, in northern Turin (AEV c.7, c.8/c.1, c.11, c.13). The 11-storey building actually resembled the proposals for his city of the future, especially in the cellular composition of the façade, albeit in far more moderate terms (**Figure 16**).

Again, the building block, which featured two large panels in the foyer painted by Venturelli, was never presented in any relation to his visionary art, neither by himself nor by later writers (Marchiando Pacchiola 1992: 19–20). During the early 1970s, more showcases of his art culminated in an exhibition of paintings held at the art galleries Nuovo Spazio in Venice (1974) and Doria in Turin (1975), de facto signalling the end of his architectural career.

Nuclear Architecture and the *Acquario-Rettillario*

It has been argued that Venturelli's impact could have been greater if he had ventured more bravely beyond his unadventurous hometown that was 'incapable of clamorous gestures' (Marchiando Pacchiola 1992: 7). Shortly before he died, Venturelli wrote to Mastroianni that 'Turin is limited and opposes everything that matters' (AEV b.12/f.2). However, Venturelli's fruitful conversations with



Figure 16: Carpegna Sabbadini building, at Corso Cincinato and Strada Altessano, Turin, 1971. AEV b.20 © Archivio di Stato di Torino.

artists were never matched by a similar exchange with his architectural peers. His participation in the debates at the In/Arch, of which he became a member in 1961 under Zevi's invitation, was never particularly active (AEV b.36/f.1). As narrated in a letter to Zevi, a meeting with Nello Renacco, author of the recent masterplan Italia '61, to discuss *Urbanistica Spaziale* failed when Renacco silently dismissed Venturelli's proposals and 'left with arrogance' (AEV b.36/f.4). Giuseppe Samonà commented that 'unfortunately these battles for the good cause of a better design of urban life are fought alone, among the misunderstanding of many' (AEV b.36/f.4). However, Venturelli also does not appear to have participated in the open competition for the Nuovo Centro Direzionale di Torino, launched in 1962. The brief, calling for the masterplan of a new business district in western Turin, famously became one of the most fertile episodes of national debate around the urban conditions and architectural language of contemporary Italian cities, with participants such as Ludovico Quaroni, Giovanni Astengo, Aldo Rossi and Guido Canella (Ceccarelli 1963).

Venturelli did not take full advantage of initiatives like the In/Arch and the Centro Direzionale competition, important opportunities to translate his ideas on cosmic urbanism into architectural design.¹² It was more in the imaginary, utopian world of drawing, sculptural modelling and painting that Venturelli ultimately found

his most comfortable stage. André Bloc effectively captured this condition by ascribing Venturelli's research to the failed potentials of a 'synthesis of arts' (Bloc 1956). His dramatic and colourful paintings, with titles like *Tourist of Galaxies*, *Astral Symphony*, *Suit for the Fourth Dimension* and *Cosmic Knight*, belong to the same desire for interstellar escape as his urban search, a synergy identified by Angelo Mistrangelo with the word *disegni-progetti* (drawings-projects) (1999: 116–17).¹³ The critical reception and stand-alone nature of Casa Mastroianni and *Urbanistica Spaziale* further prove how detached Venturelli's formal and theoretical formulations for a nuclear architecture ultimately appeared to his contemporaries. At the same time, the *acquario-rettilario* was never explicitly presented by Venturelli as a nuclear prototype. This fact suggests that its typology, with both strict programmatic requirements and a playful connotation, did not fit with Venturelli's striving for artistic legitimisation. The zoological building was both too atypical and too constrained to embody Venturelli's comprehensive discourse on nuclear architecture and cosmic urbanism. However, it can be argued that it was precisely the unusual and severe typology which allowed a more coherent character to emerge. The *acquario-rettilario*, the answer to a post-war necessity for entertainment, emerged within the Turin Zoo as a territory for unhindered, even playful architectural experimentation, as was similarly demonstrated in London by the Tecton Group's Penguin Pool (1934) and Cedric Price's Snowdon Aviary (1965). The *acquario-rettilario* was non-ideological, just like the zoo itself, and its architecture instead mediated the focus between a rational layout and its experience and perception. Its ultimate *raison d'être* lay somewhere between the object and the viewer. Reconciling an immersive museum with a plastically sculpted entrance, the *acquario-rettilario* offered an opportunity to bridge what was becoming an evident conflict between Venturelli's dramatic architectural visions and his actual, silent and much less audacious building production.

As a result of this unresolved dialectics, Venturelli's designs in the end were more or less universally recognised as characteristic of Italy's fragmented post-war imagination, and his dismissive arguments unmasked Turin's 'experimentalism without a net' (Kultermann 1959; Olmo 1992: 41). For instance, Roberto Gabetti identified Venturelli's 'typically eclectic' research as purely stylistic (Gabetti 1982: 360). Michel Ragon associated this ethos, again represented solely by Casa Mastroianni, with a 'counter-architecture' of artists (Ragon 1978: 302). Similarly, André Chastel, positioning Venturelli's research firmly within the *zeitgeist* of his time, recognised his solutions chiefly as 'inspiration' for the imagination of builders, suggesting an inherent separation of his radical ideas from the negotiations of the building world (Chastel 1958).

However, the 'spectacle of beauty' of nuclear architecture deployed in the *acquario-rettilario* succeeded in inspiring its visitors, rather than Venturelli's peers. In its biomorphic character, the *acquario-rettilario* suggested the potential for brave, anti-elitist architectural

gestures for Turin's dramatically growing demographics. Significantly, in 1961 migration in Turin reached its apex with 84,000 new citizens and the city surpassing one million inhabitants (Papuzzi 1993: 39). The *acquario-rettilario* was meant to speak to that large, heterogeneous audience of young and old, who sought to escape the 'tedious and monotonous' days of 'contemporary life in a big city'. The building's own programmatic pretexts were public immediacy and accessibility, offering an unrestricted architectural escape to the city's unresolved social status. With the *acquario-rettilario*, the inspirational mission of nuclear architecture's 'aesthetic functions' matched the yearning for poetic surprises and exotic distractions, in a metropolis where, 'like ... all great industrial cities, nerves are severely tested by intense traffic, rush, the demands of systematic work and the dangers of health' ('Un Pomeriggio allo Zoo' 1965). As such, the efficacy of the *acquario-rettilario* also became the only instance where Venturelli, at once the idealist artist and the technical architect, was really able to speak to his own time. As Venturelli's most significant statement, the *acquario-rettilario* offered an alternative answer to Turin's architectural quest for public appropriateness. Rejecting any sort of 'commitment to tradition' (Gabetti and Isola 1957a), and any individualistic ethos or private clientele, Venturelli shared with the much more careful neoliberal trend only a common anti-modernist root. Any historicist approach was abandoned in favour of an 'anti-archaeological' and intuitive plasticity serving a severe public programme (Marchiando Pacchiola 1992: 32). In fact, given its unusual typology, the *acquario-rettilario* could hardly be compared with anything else appearing in Turin in the 1950s and '60s. At a timely convergence with the triumphal contradictions of Italia '61, the contemporary form of a zoological expo building was in itself both anti-celebratory and unapologetic.

Conclusion

Over the past decades, Casa Mastroianni has been presented as the chief example of Venturelli's little-known legacy, evidencing a formal logic of free and ultimately fortuitous forms. During the 1990s, Venturelli appeared in three retrospective exhibitions: *Enzo Venturelli*, held at Collezione Civica d'Arte Palazzo Vittone in Pinerolo (1992); the collective exhibit *Un'Avventura Internazionale. Torino e le Arti 1950–1970* [An International Adventure. Turin and the Arts 1950–1970] at the *Castello di Rivoli* (1993); and *Enzo Venturelli Architetto. Opere e Progetti dal 1945 al 1960* [Enzo Venturelli Architect. Works and Projects from 1945 to 1960], held at Turin School of Architecture (1996). Again, it was primarily in Casa Mastroianni and *Urbanistica Spaziale* that these exhibitions identified the culmination of Venturelli's architectural career (Marchiando Pacchiola 1992; Gabetti, Isola and Camerana 1993).

In contrast, this paper has presented the *acquario-rettilario* as a key entry point into Venturelli's architectural production. Once understood within the conditions of Turin during the 1950s, through the significance of the zoo and, perhaps most important of all, in light of the architect's ambitions as both artist and builder, the

acquario-rettilario evidences the significant crossing of formal choices and public meaning. Indeed, all through the 1960s the *acquario-rettilario* was still considered the feather in the cap of the Turin Zoo, 'the most beautiful in Europe for grandiosity and design' ('Un Pomeriggio allo Zoo', 1965).¹⁴ The effective deployment of contemporary references, the sensible arrangement of internal spaces and use of materials, the environmental and building technologies employed, together with its ironic formal vocabulary, all succeeded in establishing the programme of a rare and particular typology, more successfully than any other of Venturelli's problematic or otherwise silent accomplishments. In this sense, the *acquario-rettilario* can still evoke the image of a pale cetacean, a White Whale, through its Zevian nickname 'Moby Dick'.

Notes

- ¹ References adopt the cataloguing system of the archive, abbreviated as follows: c.: cartella (folder); c./c.: cartella/camicia (folder/jacket); b./f.: busta/fascicolo (envelope/file).
- ² Unless otherwise noted, all translations from the Italian are by the author.
- ³ Between 1950 and 1960, average yearly ticket sales doubled across the continent. For instance, the Berlin Zoo, with one of the largest enclosures in the world, reopened just two months after the end of the conflict and by the end of the 1960s had reached pre-war attendance levels. The celebrated London Zoo hit a record three million visitors as early as 1950, and a large renovation plan in 1958 was filled with state-of-the-art facilities (Bruce 2017: 208–9; Guillery 1993: 18–23).
- ⁴ Examples of Venturelli's early career include the offices and workshops for the companies Graziano (1951), Bocca e Malandrone (1955) and Olsa e Bausano (1955); the Villa Ramello near Genoa (1949); refurbishments and extensions for Casa Ceriana (1947), Villa Grassi (1954) and Casa Zublena (1954); the cinema Principe (1945); the Eden ballroom (1947–48); the Alcedo shop (1953); and a number of funerary monuments for Turin's cemetery, such as the Cappella Valle-Zublena (1949), the Cappella Portino-Mafiotto-Venturelli (1951), the Cappella Marone-Cinzano (1951), the Cappella Bausano (1952) and the Cappella Berra (1952–53).
- ⁵ An uncle of Marcello Mastroianni, Umberto was an exact contemporary of Venturelli and had moved to Turin in 1926. Over the following decades he often collaborated with Turinese architects, such as Ettore Sottsass, Carlo Mollino and Venturelli himself (Argan and Brandi 1980).
- ⁶ For example, thanks to architecture student Mary Lynn Dolza, Venturelli's contacts extended to the United States. In June 1958 Dolza went so far as to write a confidential letter to the president of the United States, Dwight Eisenhower, presenting Venturelli's ideas on city planning as an answer to America's urban development (AEV b.36/f.2).
- ⁷ In the end, the building was owned by the municipality and construction expenses were covered entirely by the Società Molinar, which would also retain revenues.

- ⁸ An article from the local press even hinted at a direct influence between the two buildings ('Da Cavoretto a Bruxelles', 1958).
- ⁹ Marco Parenti has argued that the term 'urbanisme spatial', traditionally associated with Yona Friedman, Édouard Albert and the French school of urban studies, was actually first used by Venturelli (Parenti and Mistrangelo 1999: 42; Rogers 1961).
- ¹⁰ In December 1959 Venturelli also unsuccessfully asked Umbro Apollonio to become 'godfather' of *Urbanistica Spaziale* by personally prefacing the book (AEV b.24/f.2).
- ¹¹ Other examples include exhibitions, such as *Form Givers at Mid-Century* (MET 1959) and *Visionary Architecture* (MoMA 1960), and publications, such as the issue of *L'Architecture d'aujourd'hui* on 'architectures fantastiques' (1962) or the edited volume *Les Visionnaires de l'architecture* (1965).
- ¹² Ironically, a copy of *Urbanistica Spaziale* sent to Lewis Mumford, the chief inspiration for the book, arrived soaked in water and completely unreadable (AEV b.24/f.4).
- ¹³ In 1976 Venturelli also completed two portraits of Bruno Zevi, which he donated to Zevi and which were published the following year in his autobiography (Zevi 1977: 145). Correspondence between the two continued to be friendly throughout the 1980s and 1990s.
- ¹⁴ After a period of public success and a constant flow of further investment by the Società Molinar, the Turin Zoo finally conceded its ethical obsolescence and in 1987 permanently closed its gates. Since then, the park, and the *acquario-reptilario* with it, has remained abandoned and after more than 30 years its future is today still uncertain. Since the early 2000s an interest in the *acquario-reptilario* has produced some proposals for its reuse, including as a theatre space. The latest project for a privately managed 'bio-park' was abandoned in 2018 in favour of the refurbishment of the area for public recreation, resulting in the partial reopening of the Parco Michelotti in June 2018. The *acquario-reptilario* is, however, still inaccessible. In July 2017 a fire severely damaged the interior. The back of the building, including the house for the director, has been recently demolished and the hole is currently patched with metal panels.

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