

Carlo Mollino surrealistic design method

카를로 몰리노의 초현실적 공간구성 방식에 대한 연구

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Abstract 이 연구의 목적은 카를로 몰리노(1905~1973)의 복합적인 특징을 그의 초현실적 공간구성 방식을 특별히 고려하여 분석하는 것에 있다. 몰리노는 가장 독창적인 현대 이탈리아 건축가들 중 한 명이다. 그는 생애동안 그의 작품들은 비평가들에게는 인정을 받지 못했다. 그의 반 순응적인 성격과 극심한 개인주의도 일조를 하였지만 가장 큰 이유는 그의 작품들이 그의 전문적인 활동과 다양한 개인적인 관심사 사이에서의 강박적인 상호작용에 기반을 두었기 때문이다. 그의 독창성은 그의 능력에 있는 것으로, 항공학, 자동차, 스키, 무대 디자인, 패션, 예로티즘, 문학 그리고 그 외 수많은 다양한 분야에서 얻었던 지식을 디자인하고 건축으로 변형하려는 그의 초현실주의 배경에서부터 나온다. 개인적인 집착으로 그의 작품을 키워가면서 몰리노는 당시 현대 건축의 모든 관습들을 깨고 전문적인 능숙함과 독특한 예술적 시야 사이에 걸쳐있는 독특한 디자인 표현을 보여주었다. 이 연구는 몰리노의 독특한 공간 구성 방식을 벗겨내기 위해 그의 배경, 즉 그가 열정적으로 탐구했던 연구 분야들과 전문적인 생산물 사이의 연결고리를 분석한다.

Keywords Molino, Surrealism, Design Method, Total design
몰리노, 초현실주의, 공간구성 방식, 통합 디자인

1. BACKGROUND

1.1. Brief biographical notes

Carlo Mollino was born in Torino in 1905. His father Eugenio(1873-1953) was one of the most important civil engineer practicing at that time in Torino; he was involved in the design of several large-scale projects such as hospitals <Molinette and San Luigi>, schools and residential buildings. He had a very important role in the cultural formation of his son, introducing him to alpinism and aeronautics and sharing with him, until his death, his professional office. Carlo Mollino was Eugenio's only son and in 1926 he enrolled in the Facolta' di Ingegneria of Torino Polytechnic¹⁾ to drop out just a year later to enter the newly established Regia Scuola Superiore di

Architettura where, in 1931, he received his degree in Architecture. Right after graduation he started working in his father office, winning and building several competitions that helped him to establish his independent professional reputation. In 1949 Mollino entered the Facolta' di Architettura as Interior Decoration professor and few years later, in 1953, he became full time professor of Architecture. He died in his office, the same place he first shared with his father, in 1973, at the age of 68. All his professional archive is now part of the Torino Polytechnic Architecture Library and is available for studies and consultations.

1.2. Research guidelines

Mollino is considered one of the most ingenious Italian modern architects. During his life his work received little appreciation from the critics, partly due to his anti-conformist personality and his extreme individualism, but mostly because all his projects were inspired by an obsessive interaction between his

1) Politecnico di Torino was established in 1906, but his origin goes back to 1859 with the foundation of the Scuola di Applicazione per Ingegneri. In the early 20's the Regia Scuola Superiore di Architettura (Royal Architecture Academy) was opened as part of the Polytechnic School and soon transformed into the current Facolta' di Architettura (School of Architecture)

professional activity and his multiple personal interests. His originality lays in the ability, inspired by his surrealist background, to transfer into architecture and design the knowledge he gained from different fields such as aeronautic, automobiles, ski, scene design, fashion, erotism, literature and many others. Nurturing his work with his personal obsessions, Mollino broke all the modern architecture's current conventions and delivered a unique design statement suspended between professional competence and unconventional artistic visions. This study analyzes the links between Mollino's background, the research fields he passionately explored, and his professional production in order to unveil his unique design method.

Mollino's works include, among the others, technical patents, architecture, interior, furniture and set design projects. Therefore the scope of this study is not focused on any of these specific areas, but on the instinctive and surrealist design process that lies behind all Mollino's projects. The article is addressing the fundamental design issues at the base of Mollino's design process, providing a key to better understand his autobiography-based²⁾ creative productions. The research methodology is based on the direct observation of the few Mollino existing works, the analysis of his personal archive and his writings, and the consultation of selected published materials.

2. MOLLINO SURREALISTIC APPROACH

2.1. The crisis of Rational Theory

Since the very beginning of his professional career, in the early 1930s', Mollino took part in the discussion around the theoretical base of the Rational Movement. The work of architects and theorists such as Le Corbusier 「Vers une architecture, 1923」 and Bruno Taut 「Die neue Baukunst in Europa und America, 1929」 was all oriented in provocatively defining clear rules for the production of new buildings. The Le Corbusier five points of architecture and the Taut's

functional definition of beauty were providing architects with a specific design code. The code was meant to be developed and constantly updated, as Le Corbusier did, often betraying it, along his entire career. Nevertheless the existence of the code implied that architecture had to move within a limited and autonomous field; its target was not to redefine the entire universe, but to act practically in order help the organization of modern society.

Due to the limitations of the code and the fact that initially the Fascist regime adopted the rational architecture for his building propaganda, many Italian architects and intellectuals were very critical towards the theories proposed by the modern movement.

Giulio Carlo Argan³⁾, well-know art and architecture critic, expressed his critical opinion on the artistic possibility of functional architecture in the preface of the book "Dopo Sant'Elia" (After Sant'Elia) in 1935. Argan in the article affirmed: "the attempt to start from functionality to reach art, failed completely". And he continued saying: "this 'rational' theory of architecture does not contain in itself any possibility to become an artistic theory ... it is not even a theory, or an event at the origin of the creation process(ante-fatto, prior event in italian), but just an after event(post-fatto in Italian), an attempt to fit the author fantastic(a product of the author imagination) creation in the needs of contemporary society.⁴⁾"

Mollino was very sensitive to the problematic issues involved in the attempts to surpass the Rational theories and redefine the limit of the architect's work. He was surely fascinated by the rapid ongoing modernization of society, but he didn't accept giving up his artistic freedom. Unlike most of his colleagues such as Ridolfi, Albini and Gardella⁵⁾ (all born in the same period), which called themselves rational architects and firmly believed architecture was not only an art, but a technical discipline committed to transform society, Mollino opted for a very personal and anti-conformistic position. In 1940 he wrote: "The

2) The first complete study on Mollino's work was published in 1985 by Giovanni Brino: 「Carlo Mollino, Architecture as Autobiography」 Idea Books. The book traced the line for all further interpretation based on a direct connection between life and practice.

3) Giulio Carlo Argan(1909-1992), Italian art critic and politician, published "Dopo Sant'Elia" with Editoriale Domus in 1935.

4) Argan preface is quoted by Paolo Portoghesi in his essay: Interiors. Carlo Mollino, inside tradition. In Carlo Mollino. Arabeschi. Fulvio e Napoleone Ferrari editors, pp.41-55.

5) Mario Ridolfi(1904-84), Franco Albini(1905-77), Ignazio Gardella (1905-99), were among the most important architects of that time.

only thing that shall worry me is to fix into expressions all these forms that otherwise would remain mysteries until you define them in the way you feel proper and inevitable⁶⁾". It is an artistic statement, fully based on Benedetto Croce⁷⁾ artistic theories, Mollino wrote when he was quite young (35) but which he never betrayed in the course of his career: art as intuition-expression, where contents and sentiments are fully embedded in the form.

2.2. The Surrealist movement

According to Paolo Portoghesi ⁸⁾, in his attempt to overcome rationalism, Mollino found himself very close to the avant-garde positions of the Surrealist movement. Started in Paris by Andre Breton in the years following World War I, the movement was deeply affected by the contemporary Sigmund Freud's theories about free association, dream analysis and hidden unconscious. Breton, originally trained as a doctor and psychiatrist, started to experiment a new form of artistic expression called "automatic writing", a spontaneous writing without any sort of thoughts censorship. He gathered a considerable circle of artist around him and the movement soon extended its experimental approach to other fields such as visual art and photography. The target of the group was to revolutionize human experience, including its personal, cultural, social, and political aspects, by freeing people from what they saw as false rationality, and restrictive customs and structures. They published the Surrealist Manifesto⁹⁾ in 1924 and soon after the magazine "La Revolution Surrealiste"(Surrealist Revolution). Their philosophy was based on:

- _ the attempt to reach a superior reality through previously neglected thoughts associations

- _ the omnipotence of dreams

- _ the disinterested play of thoughts

To reach their goals they developed several new

expression techniques among which:

- _ automatic writing / automatic drawing
- _ unexpected juxtapositions
- _ non sequitur
- _ collage and photomontage¹⁰⁾

2.3. The "Minotaure" influence

Mollino left us a considerable amount of writings, drawings and projects, but he never wrote an autobiography. In order to better understand the way he developed his sympathy for Surrealism and his reaction against the limitations of "Rational Theories" it is interesting to look into his library, which Carlo in part shared with his father Eugenio. Mollino owned, a rare case among contemporary Italian architects, all the 13 issues of "Minotaure¹¹⁾", the legendary magazine published by Albert Skira' between 1933 and 1939, which can be considered the main communication organ of surrealist culture. Browsing through the pages of "Minotaure" is like going through the entire Mollino's poetic universe with his passions and obsessions, that found a perfect correspondence with the articles and images presented by its main contributors: Picasso, Breton, Eluard, Dali', Masson, Matta, Ernst, Man Ray, De Chirico and Lacan among the others. In particular there are few elements promoted by surrealist culture throughout the magazine, which Mollino found particularly appealing:

- _ the tendency to put on the same temporary level art from different periods (past and contemporary) and the re-discovery of the modernity of artists such as Paolo Uccello, Tintoretto, Cranach, Friedrich

- _ the new consideration for architectonic styles like Symbolism and Art Nouveau which rationalism didn't consider at all

- _ the attention for Decadents poetry and literature
- _ the interest for 19th century eclectic culture, including astrology and occultism

- _ the full acknowledgment of the artistic potential of photography.

6) Carlo Mollino, Lucidita' nel Tempo. In Velso Mucci, Le Carte, Il Selvaggio, Roma, pp.5-18.

7) Benedetto Croce(1866-1952), italian critic and philosopher. Through his writing he supported the idea that "art is expression".

8) Paolo Portoghesi well describes Mollino's attempt to move away from rationalism and his links with surrealism in his essay: Interni. Carlo Mollino, dentro la tradizione.

9) The first Manifesto, written by Breton, was published in Paris in 1924. A Second Manifesto, supervised by Breton and written by many contributors, was published in 1929. A third one, drafted by Breton, was never published

10) The data on surrealist philosophy and expression techniques are deducted from the encyclopedia entries SURREALISM and SURREALIST TECHNIQUES on Wikipedia and the entry SURREALISMO on the Dizionario Garzanti di Filosofia.

11) Published in Paris between 1933-39, was a luxurious publication, which featured original material from artist such as Pablo Picasso. It is one of the best source to study pre-war surrealist culture.

In the book about photography Mollino published in 1949, "Il messaggio della camera oscura¹²⁾" there is a large section dedicated to Man Ray, which is not surprising, but there are also many photos by Alvarez Bravo, a Mexican photographer he discovered on the pages of "Minotaure".

Indeed the most important stimulation for Mollino artistic research is the editorial of the last number of the magazine issued in may 1939: "Facing the undisputable failure of rationalism, failure we largely announced and predicted, the vital solution is not to go back, but to move forward towards new territories. Our ambition is to design and define them."

Since the very beginning of his career, Mollino considered the rationalistic connection between "functionalism" and "beauty" as a strong limitation to his expressions' possibilities. For this reason, stimulated by his surrealist studies, he pointed his research in the direction of a personal exploration of parallel disciplines, with the purpose to extend his inspiration background and feed his practice with new and "non-architectural" visual stimulations.

3. MOLLINO PARALLEL RESEARCH

3.1. Going beyond reality

Although Mollino didn't have any contact with the Parisian circle of surrealists, he had many friends among the group of artists and intellectuals working in Torino, the only city in Italy largely influenced by the surrealist movement. From this intense cultural exchange Mollino drew his aspiration for the universal man of the Renaissance, the antithesis of what he called "the depersonalization of the individual alienated by technology¹³⁾", a disease of our time. Mollino was a Surrealist in his deep-seated tendency to transcend reality, fact and reason without ever coming to compromises with banal solutions. He started from these considerations to build his theatrical transfigurations and gain access to those unutterable subterranean levels of man to which the world "surreal" refers: "sur-reel", beyond the real and the empirical.

12) "The message from the Darkroom", the photographic history Mollino published in 1949 in Torino with Chiantore.

13) Carlo Mollino, Utopia e Ambientazione (II), Domus 238, 1949, p.21

Unlike most of the artists around him, Mollino, as an architect and a designer, had to closely work with the constraints of reality. His furniture had to function and his construction had to serve a purpose. For this reason, due also to the severe education he received from his father engineer, he developed a peculiar poetic which has been often referred as Surrealism with a technological slant.

In order to feed his voracious design curiosity, Mollino developed a certain number of obsessions; some of them inherited from his father Eugenio, others developed under the influence of the "Minotaure", and some others completely personal. For all his life he passionately nurtured them, considering them at the same level of his professional practice. They were a constant source of inspiration for his surrealist design method. The following is a concise analysis of each of Mollino's "obsessions", based on the material he collected in his personal archive.

3.2. Flying

Flying, together with motor sport and downhill skiing, was a dynamic experience that greatly influenced Mollino's approach to architecture and design. He inherited this passion from his father Eugenio who was also a managing director of Ansaldo (the first Italian Aircraft producer) and a promoter of VMU, Volo Muscolare Umano <man-powered flight>.



<Figure 1> Man powered flight machine built by Ansaldo(1915)

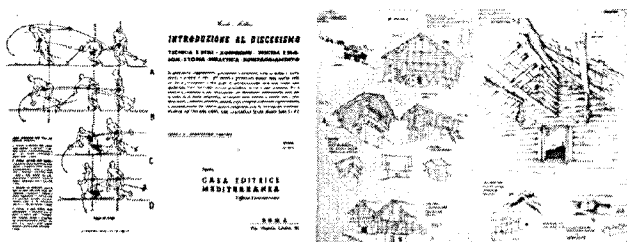
Carlo learned how to fly and perform acrobatics under the guide of world champion pilot Albert Ruesch. His interests moved soon towards design related issues: during the 1950's and 60s he produced several designs for aircrafts and helicopters and registered few flight equipment related patents such as the Jodel joystick, to split the aircraft controls, and an apparatus to draw flight plans on paper¹⁴⁾. He was

14) Patent for a "Tracing Planigraph, for surveying large areas of land" mounted on vehicles or aircraft, 1945 with Aldo Carnasciali. Patent for a "system of twin aircraft controls", 1956.

also involved in graphic projects involving planes liveries and he planned to write a history of flight, which was only interrupted by his sudden death.

3.3. Alpine Architecture and Skiing

Alpine architecture and skiing are both passions he inherited from his father since his childhood. As an architecture student Mollino completed a detailed survey of Aosta Valley Alpine architecture consisting of 42 drawings he later planned to publish in a book.<Figure 2> He continued to look at rural architecture throughout all his life with the intention to modernize its basic elements. In 1953, he set up the Institute for Mountain Architecture within the Architecture Composition Department of the Torino Polytechnic. Due to his recognized downhill skiing abilities he was appointed Chair of Skiing Schools by FIS (the Italian Winter Sports Federation) and, in 1951, he published the book "Introduction to Downhill Skiing"¹⁵⁾, fully illustrated by Mollino's original drawings and photos, which marked a turning point in the downhill technique of the time.<Figure 2>



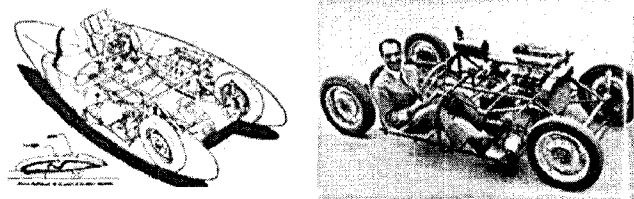
a) Introduction to Downhill Skiing b) Alpine architecture survey

<Figure 2> Alpine design references

3.4. Racing cars and automobiles

In the years that followed his father's death (1953) Mollino neglected architecture and design to throw himself completely into motor sport. Together with Mario Damonte and Enrico Nardi, he designed and built his own cars to participate and race in several competitions including the very prestigious 24 hours of Le Mans. The first experience in the field was the customization of an OSCA 1.100 cc published on the magazine Auto Italiana in 1953, but the most significant achievement was the Dalmolnar¹⁶⁾ Bisiluro <Twin

Torpedo>, a twin fuselage car entirely realized in the Torino workshops by his partners; the car took part in the 1955 edition of the Le Mans race and for two years retained the 750 cc category record of the track. The car is now part of the collection of the Milano Museum of Science and Technology.<Figure 3>



a) framework design b) chassis

<Figure 3> Bisiluro Dalmolnar

3.5. Photography

Apart from architecture, photography was for Mollino the most important creative activity. In almost 50 years of practice he tried all sorts of formats, technique and equipment. He wrote an important book about photography, "Il messaggio dalla camera oscura Il messaggio dalla camera oscura"¹⁷⁾ (The Message from the Darkroom) which was published in Torino in 1945 and received favorable reviews and soon became a classic. His own photographs were also published in books and presented in national and international exhibitions.<Figure 4>



a) Casa Miller portraits b) Sanremo project

<Figure 4> Photomontages

He established close relations with different photographers, especially Riccardo Moncalvo, but he mostly produced his own artwork. Mollino used photography not only as a recording media for his professional activity, or as a documenting tool for his research publications (he took his own picture for most of his books, from skiing to Alpine architecture research), but as a real design tool: photomontages of

15) Carlo Mollino, Introduzione al discesa (Introduction to downhill skiing), Mediterranea, Roma, 1950

16) The name is an acronym for Dalmonte, Mollino and Nardi, the three main figures involved in the project. Rocco Motto of

CAMO built the body and the company F.A.R.T. produced the radiator.

17) The Message from the Darkroom, Chiantore, Torino, 1949

architecture models, cleverly retouched by Mollino himself, were often presented to the clients with the purpose to get them interested but also as a means of exercising better control over the design.

3.6. Set design

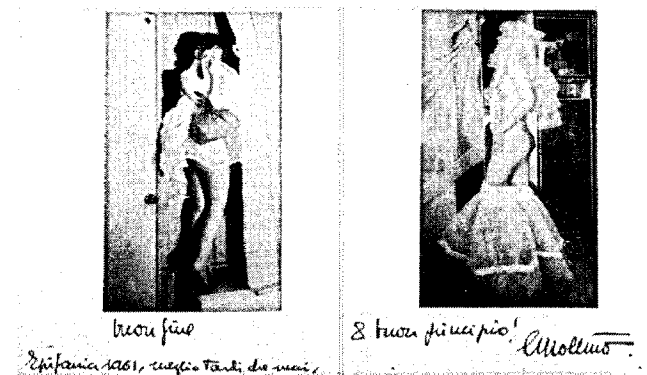
In the course of his career Mollino designed stage sets for three different theater plays: "Pietro Micca" (1937-8), "Femmes d'Escalles"(1945) and "Au lever du soleil"(1945). However only the first one was performed. Despite his contribution to the set design discipline were very limited, compared to other fields, his architectural conceptions were very theatrical: since he often used specially designed furniture and accessory, and many of his interiors are far more like domestic sets, the work he did on stage design can be thought of as a branch of his interior design. In all the apartments he designed for himself, from the Casa Miller, to Villa Zaira he often included a pose micro-theater for his personal photo sessions making use of sliding curtains and other illusionistic tricks.

3.7. Erotism

One of the most striking aspects of Mollino's architecture and design is its eroticism. This is the absolutely essential key to understanding, to the fullest extent, the character that recurs obsessively in his work. Eroticism is the very substance of all of his output, all of his life, and it is manifests itself in every shape he designed. Everything was permeated by an erotic sensibility, whether directly or in sublimated form. Apart from architecture, this eroticism most clearly manifested itself in his photography. Starting from the early 1930s until his death, erotic photography was one of his obsessions and he left thousands of pictures of naked models. He used different media: monochrome, colored negatives or Polaroids, which in the end become his favorite technique. He used to retouch them with colored strokes and he often transformed them, with the addition of witty captions, into greetings cards for his intimate friends.<Figure 5>

His erotic obsession was expressed also in the fashion clothing Mollino personally designed for his photo sessions. He was initially interested in garments for women, inspired by the "frivolities" catalogue he

fervidly collected, and later by the "Hollywood style" emulating the surrealist taste of Spanish director Louis Bunuel. The photos were taken in the mini-pose theater he set up in his own apartments and were a major source of inspiration throughout his entire career. Nevertheless, when transferred into architecture and design for the general consumption, all the references to his private erotic universe, were tone down and mediated with a sense of irony in order to become "acceptable".



<Figure 5> Mollino: Greetings card using his erotic pictures(1961)

3.8. Extra interest

Mollino was also involved in several other activities, which absorbed him with the same level of intensity as the ones mentioned above, but that are not considered relevant for the purpose of this study. It is interesting to remember: literature and decadence, (he wrote two architecture inspired novels¹⁸) in episodes published on Casabella and Il Selvaggio), patents (he registered 15 patents under his name, ranging from pipe connectors to perspective drafting machines), academic activity(he was professor for 20 years and he published several articles about art and architecture), traveling(intended as a research trips such as the one he did to New York during the design of the Torino Regio Theater) and occultism(which he re-elaborated in personal theory of colors).

4. SURREALISTIC DESIGN

4.1. Mollino surrealist design method

As most of the artists in the beginning of the 20th century in Italy, Mollino cultural formation was

18) La vita di Oberon(The life of Oberon), Casabella 1932.

L'Amante del Duca (The Duke's Lover), Il Selvaggio, 1934-36

heavily influenced by the writings of the Italian philosopher Benedetto Croce. Croce in his writings, 『Breviario di estetica, 1912 / Aesthetica in nuce, 1928』 defined art as a branch of Esthetic. Art is based on “intuition and expression”, not on “concept”, which is a feature proper of pure philosophy. Intuition and expression are not separable: the artist is the person that can give a form to his intuitions, being simply inspired by the observation of reality. Art is not simply giving a “form” to a concept, but is a “spiritual” act generated by intuition¹⁹⁾.

Although Mollino was aware of the fact that architecture, unlike art, does not exist without a client and that architects are most of the time involved in “non-poetic concerns²⁰⁾”, he affirmed that the ultimate goal is to beyond reality and, strange enough for a man proud of his technical expertise, define often himself as an artist.

It is very clear how all the discussions about architecture as a social discipline could not interest him, while he was very close to the surrealistic culture and its conceptual attempt to “by pass” reality (sur-reel). His design method was based on the surrealistic disorientating stratagem of bringing together in his design, languages and objects of various provenances. He fed his projects with elements directly imported from his multiple interests with the purpose to reveal its creator(Mollino himself) and reflect the image and the likeness of the person who made it.

Mollino, in his design method, exploited several features proper of the surrealist movement:

_ self referred sources

unlike the rational movement which encouraged the use of a predefined set of design elements within the discipline of architecture, Mollino constantly referred to his personal creative imagination to select the sources for his design.<Figure 6>

_ free flow of thoughts

he was not afraid of exposing his more intimate thoughts, as for the case of his erotic inspired productions, in a free form of consciousness flux.<Figure 7>

_ unexpected juxtapositions

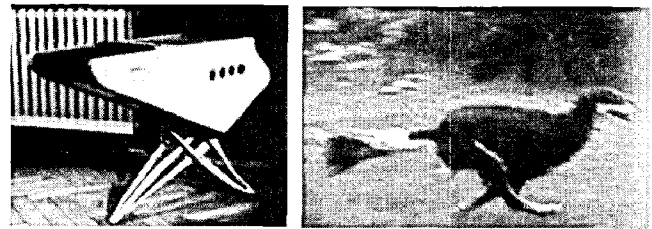
he derived elements from different fields, scale them and combined them in unpredictable forms.<Figure 23>

_ style combinations

he used, mostly in furniture design, antique pieces elaborated with new custom elements.<Figure 24>

_ collage/photomontage

he used large photographic prints as decorative patterns in many of his interior projects.<Figure 18>



a) Radio Gramophone for Minola House(1946) b) Sulki dog running from Mollino archive

<Figure 6> Self referred sources



a) Clothes rack for the Cremona House(1939) b) Mollino graphic interpretations(undated)

<Figure 7> Free flow: “goodness”, “stubbornness” and “violence”

The followings are the most significant examples of his sourcing based on the areas of research described in the previous paragraph.

4.2. From flying

The influence of flying in Mollino’s design appears in both direct and indirect way.

(1) Direct references

From the ribbed construction of high-performance aircraft Mollino derived: the roof trusses used for the Torino Ippica Building and several other large span design for churches, factories and exhibition halls; the ribbed supporting structures for his glass top tables.<Figure 8/9>

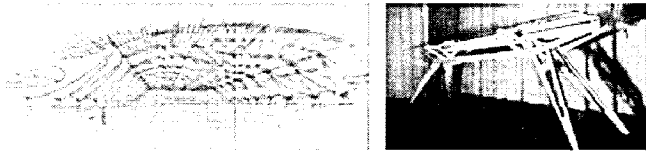
19) The informations about Benedetto Croce philosophy are deducted from the encyclopedic entries on Wikipedia and on the Dizionario Garzanti di Filosofia, Garzanti Editore.

20) Carlo Mollino, Vita di Oberon, Casabella 71, November 1933, p.39



a) Wing construction b) Ansaldo Aircraft Factory(1920's)

<Figure 8> Airplane wings

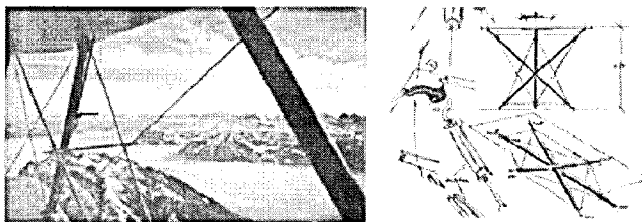


a) Entry for the Italia 61 competition b) Table for Casa Rivetti

<Figure 9> Wing ribs projects

From the bent plywood technique used by Ansaldo to make aircraft propellers he derived his entire single sheet bent furniture production.<Figure 11>

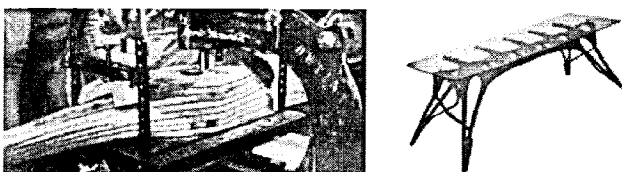
From the wood struts cross-bracing technique used in biplane wings he investigated in several manuals he collected in his office, Mollino elaborated furniture <Cremona table, Figure 10>, exhibition design <Nube d'argento bus> and interiors <rice grower's bedroom>.



a) Mollino plane b) Cremona table with bracing structure

<Figure 10> Wing cross bracing

From the tubular joints and pivots he experienced in aircraft construction, he derived universal connections and electro-mechanical pivots he first patented, and then used in most of his adjustable lamps, tables and bookshelves.



a) Ansaldo bend plywood machine b) Vertebrae table for Lattes

<Figure 11> Bent Ply

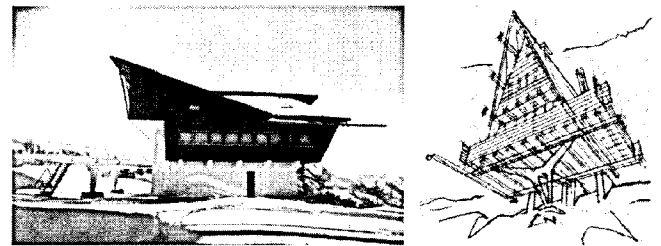
From the aerodynamic body of airplanes fuselages Mollino gets the main lines for a tableware set

designed for Reed and Burton.

(2) Indirect references

Mollino used a lot of stratagems to make his building and furniture to look aeronautical as if they were aircraft straining to get off the ground.

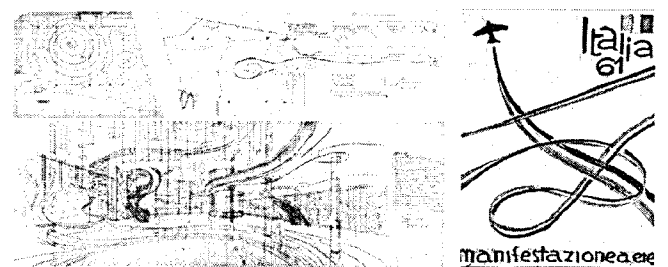
Audacious overhang, tapering columns, deep cantilevers are quite recurrent in his design like the one found in the Stazione Lago Nero, (he referred to it as "an airplane standing on the snow") in the Casa del Sole or in the Casa Capriata project (design must "make a chalet look as if it can fly²¹⁾").<Figure 12>



a) Stazione Lago Nero | Casa Capriata b) Casa Capriata

<Figure 12> Flying architecture

He used also an exploded drawing technique, especially in furniture and interiors, similar to the one used in technical manuals to describe the construction and assembly sequence. In some cases, like in the floor, ceiling and light pattern of the Lutrario Ballroom, the plan is directly inspired by the acrobatic trajectories described in the several flight manuals he kept in his office library.<Figure 13>



a) Lutrario Ballroom Plan and internal view b) Acrobatic loops.

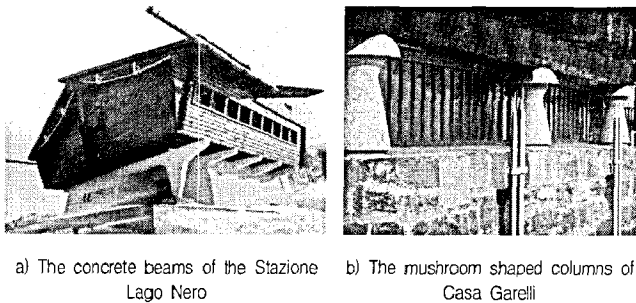
<Figure 13> Acrobatic trajectories

4.3. From alpine architecture and skiing

The most important reference in this filed comes from the study of vernacular architecture Mollino completed in his early year. Taking advantage of the knowledge he gained, in all the building he later

21) Both expressions are attributed to Mollino by Giovanni Brino in his book Carlo Mollino, Architecture as Autobiography, p.33

designed in alpine locations, and above all in the Lago Nero ski lodge, he reinterpreted the vernacular language of mountain architecture in a very personal way, decanting and reinventing traditions in a completely modern way. He redesigned elements such as the mushroom shaped stone support blocks (in the Champoluc lodge) or the deep cantilevering wooden structure (in the Lago Nero substituted by concrete beams) to produce surprising design effects based on totally familiar elements. <Figure 14> He applied the same technique to several chairs in solid carved wood he designed for his own apartment.



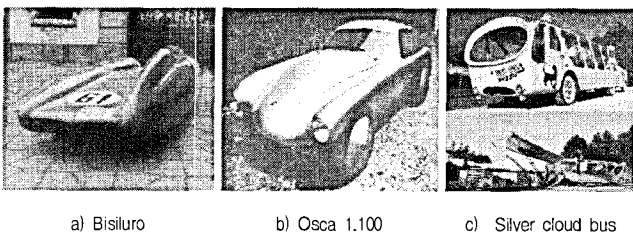
<Figure 14> Modernized alpine architecture elements

4.4. From racing cars and automobiles

Mollino's relationship with cars was both direct, with the design of few prototypes, and indirect, with a systematic involvement of automobiles in the architecture design.

(1) Direct involvement

Starting from the 1950s Mollino designed and built few outstanding prototypes of cars <the Bisiluro and the Osca 1.100> in which he employed all the aerodynamic knowledge he gained in his previous aeronautic experiences. He produced also many sketches and drawings for un-built prototypes among which a Ferrari and a FIAT 1.100.



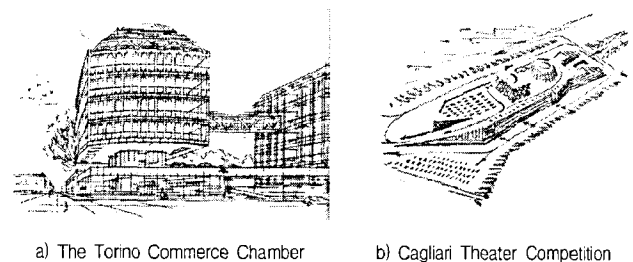
<Figure 15> Car design

His passion for everything connected with automobiles provided him several professional commissions for fair stands and exhibitions: the most significant was for

sure the body work for the Nube d'Argento <silver cloud> advertising bus designed for Agip, the Italian petrol company. <Figure 15>

(2) Indirect references

His last projects show a more conscious and determinate use of automobiles within buildings, in a period, the 1960s, when cars were about to become the main mass transportation device. The project for the Torino Commerce Chamber is totally organized around the use of cars within the building. Instead of hiding them in the basement, Mollino decided to place them on the second floor, investing them with a strong symbolic meaning. <Figure 16>



<Figure 16> Cars within the buildings

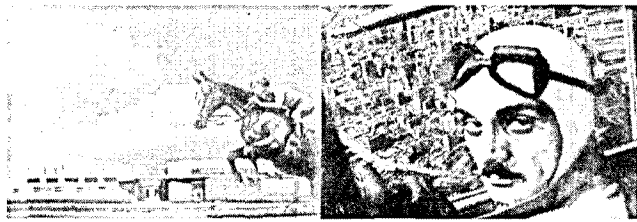
These ideas of drive-in structures, where cars are the main protagonists of the buildings, were explored even more in later competitions <Cagliari Theater and Fiat building in Candiolo>, but they were never built.

4.5. From photography

Mollino used photography both as an art and as a research and design tool. His early photos taken in the Miller house show already his interest for very accurate space compositions where every detail, as in the work of surrealist artists, has a precise symbolic reference. Mollino often used his design pieces as a set for his photographs, creating a narrative sequence aimed to take the viewer in a dream-like dimension that goes well beyond reality. It was also the case of the several collages he produced to present or illustrate his projects, among which, the photos of the Ippica with the white horse he did together with R. Moncalvo, and the Flight over Manhattan composition done together with artist Pietro Martina. <Figure 17>

With the same narrative purpose to add another dimension to his interior projects, Mollino often incorporated photographic blow-ups covering walls, tables and sometime also the ceilings. It is the case

of the landscape scenes used in Casa Rivetti, Orengo and Minola, <Figure 18> or the Michelangelo “dying slave” used as a table top in the Casa Miller.



a) Ippica Prancing horse b) Mollino flying over Manhattan

<Figure 17> Photomontage technique



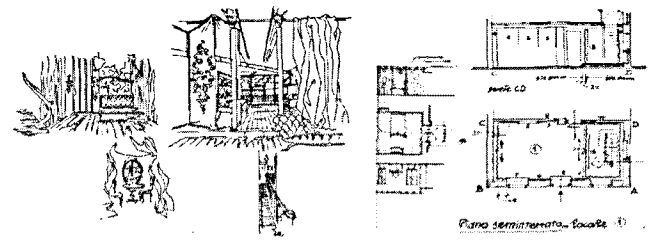
a) Casa Rivetti b) Casa Orengo c) Casa Minola

<Figure 18> Large prints used in interiors

4.6. From set design

The experience he gained in set design gave Mollino the possibility to develop even further one of the main features of his interior projects, which he often referred to as the “set performance”. Comparing the drawings he prepared for the few plays he worked on, and the innumerable perspective he developed to study and present his interior projects, we can find many analogies. They all show the space from the best point of view, suggesting that, even in the private residence interior projects, like in a theater, there is an audience watching the scene. The domestic space becomes a carefully designed set for the everyday theater of life. It is also important to consider that in all his personal apartments, along all his life, Mollino kept fully equipped mini pose theaters²²⁾, with lights, movable partitions and adjustable backdrops. He regularly used them to experiment, mostly using his furniture and professional models, with different settings and scenarios. <Figure 19>

22) Casa Miller, Villa Zaira and Via Napione apartment had dedicated spaces used by Mollino as photo shooting facilities.

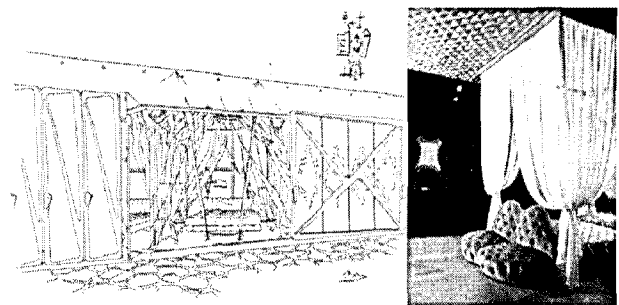


a) Plays sketches b) Private photo pose-theater

<Figure 19> Plays sketches

4.7. From eroticism

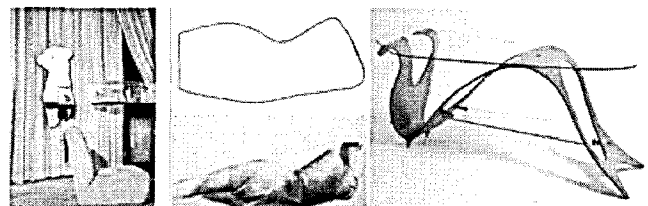
As previously stated, it is impossible to understand Mollino’s design without considering his erotic obsessions. A foretaste for his personal erotic interest can be found in the several “bedrooms” he designed throughout his entire career, including the conceptual proposal for a “rice grower’s bedroom” published on Domus in 1943. <Figure 20> Nevertheless, the design for his latest “garçonnières”, the intimate space he used to receive and photograph his lovers, allowed manifesting his intimate appetites at the purest state, which was not possible in professional commissions where he used to mask them under a veil of subtle irony.



a) Rice grower's bedroom for Domus b) Devalle bedroom

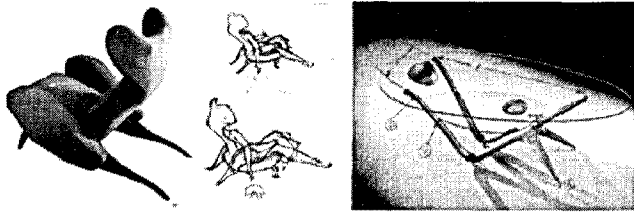
<Figure 20> Garçonnières

His erotic sensibility pervades many of his furniture and even the architecture plan of some of his buildings.



a) Milo mirror b) Arabesco table glass profile

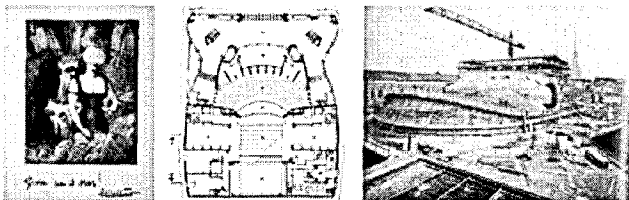
<Figure 21> Erotic design



a) "Provocative" Armchair b) Stiletto Table: Singer & Sons

<Figure 22> Erotic design

It is the case of mirrors cut in the shape of the Venus of Milo <Casa Miller>, table top modeled after the contour of a reclining woman <Arabesco>, <Fig. 21> anthropomorphic chairs designed to blend in with the body of his models (Provocative, designed for his own office and defined as "ready for love"²³), coffee tables with high stiletto heels legs (designed for Singer & Sons) <Figure 22> or the plan of the Regio Theater in Torino directly modeled after a profile of a generously profiled reclined woman as the one we can find in his 1963 New Year greetings card. <Figure 23>



a) Greetings Card (1963) b) Woman shaped Theater Plan c) Theater "Saddle" roof

<Figure 23> Regio Theater in Torino

5. CONCLUSIONS

The main findings related to the Mollino design method previously illustrated are the following:

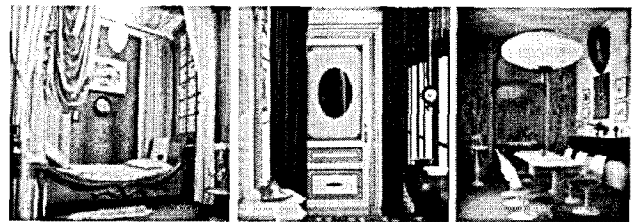
– Due to the practical necessities of architecture, Mollino surrealist method is rooted in his free and independent approach to the project composition more than into its formal outcome. His surrealism lays in the research of a personal language he used to by pass the limitation of reality and build his own imaginary universe.

– In his work Mollino gave forms to his very personal passions throughout a high level professional practice. His works has often been described as autobiographical²⁴: he embodied the figure of the

23) Attributed to Mollino by Giovanni Brino in his book Carlo Mollino, Architecture as Autobiography, p.133

surrealist artist, but with a unique and very personal "technological slant"²⁵. For this reason, although he has been a teacher for more than 20 years, he never created a "school" among his students, because, due to the very artistic approach of his rigorous practice, the school would have produced only another "Mollino".

– Mollino, mostly in his interior works during the 1950s, deliberately "contaminated" his projects, juxtaposing elements coming from different fields in surrealist fashion. <Figure 24> Mollino apartment in Via Napione: antique pieces redesigned. It is a method that, according to Charles Jenks definition, 30 years later, during the 1980s, became the way architects used to "exit" the modern era and enter into postmodern. Mollino experimental approach, with his eclectic background, largely anticipated the postmodern trend, but has been never fully acknowledged by the majority of the critics.



<Figure 24> Mollino apartment in Via Napione: antique pieces redesigned

LIST OF FEATURED PROJECTS:

1. 1937: Societa' Ippica Torinese, Torino (demolished 1960)
2. 1938: Casa Miller, Torino
3. 1939: Casa Devalle, Torino
4. 1943: Camera da letto per cascina in risaia
5. 1944: Casa Minola, Torino
6. 1949: Casa Rivetti, Torino
7. 1949: Casa Orengo, Torino
8. 1952: Casa sull'altopiano di Agra
9. 1954: Casa Capriata
10. 1959: Sala da ballo Lutrario, Torino
11. 1960: Slittovia del Lago Nero, Sauze d'Oulx
12. 1963: Camera di commercio di Torino
13. 1965: Casa Garelli, Champoluc
14. 1973: Teatro Regio di Torino

24) The first article by Giovanni Brino, one of his most important scholars, published on Lotus in 1977 (4 years after Mollino's death) was titled "Architettura a tempo perso, hobby a tempo pieno" (Architecture as hobby, hobby as full time job)

25) Definition of Mollino by N. Ferrari in his essay: Surrealist Engineer. In The Furniture of Carlo Mollino. F. e N. Ferrari, pp. 29-55

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