Taxonomic Extroversions
of Interior Design and Axiology of Drawing

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Abstract

In understanding the multiple relationships between 'drawing' and 'interior design' we realize the techno-aesthetologic nature of the drawing discipline. Here we propose to do this in the light of two notions that we consider coextensive: the psychological one of 'affordance' (James Gibson) and the philosophical one of 'atmosphere' (Tonino Griffero) which —according to a particular neurop-sychological definition of 'conscience' and 'feeling' (Antonio Damasio) —practically highlight the 'what', the 'almost what' and the 'not-what' can be represented for descriptive and prescriptive purposes when studying or designing —drawing— an environmental artifact. The crucial question is: 'how are atmospheres depicted?' A question that is usually considered pertinent to individual poetics, which cannot be analyzed in structural and morphological terms. Instead, starting from the observation that there are also conventional atmospheres, we propose some features of a method of analysis for these cultural categorizations, a method based on the develop-ment of the axiology of the spatial enhancement modes given by Jean-Marie Floch thirty years ago, albeit revising it in the light of more recent acquisitions in the semiotic field and according to the perspectives opened by the Deep Learning computer techniques.

Keywords: interior design, drawing, atmospheres, affordance.

Drawing and interior design

In the last half-century, the discipline of 'drawing' in Italian universities has largely been exercised on instances dictated by architectural culture, also because the degree courses in Product, Communication and Interior design are more recent institutions in the Italian schools of architecture and engineering. These schools have gone through a thir-ty-year process of separation of knowledge, especially be-tween the various fields of design and architecture. Among these separations, the one between the disciplinary areas of interior architecture –ICAR/16– and interior design –ICAR/13– seems paradoxical, at least for those that are able to remember the traditions that embodied the most famous 'made in Italy' prototype after the war. Just think of the famous figures of 'designer-architect' in the 50s-70s (for instance Franco Albini, Mario Bellini, Luigi Caccia Domin-ioni, Achille Castiglioni, Angelo Mangiarotti, Carlo Mollino, Luigi Moretti, Carlo Scarpa, Marco Zanuso, …) who still worked and taught as 'integral architects', that is, consider-ing architecture as a median scale of the possible areas of design: "from the spoon to the city". Among these areas, the field of interior design exemplified the full continuity of architecture, design and drawing, showing the character of the built space as a work of art. For example, the famous Olivetti shops (figs. 1, 2) around the world were all different, but each independently conceived as an 'art gallery' where industrial design objects were displayed alongside and in the same way of sculptures, paintings, bas-reliefs, … in hy-per-iconic environments, each conceived as a work of art.

On the contrary, nowadays we find ourselves wondering about the specificity of a drawing for design. If we understand drawing only as the discipline that deals with methods and practices of representation, this can be reduced to a current landscape of scattered issues related to the management of digital models –'point clouds', 'third party survey contracts', 'avatars', 'drone' flights, 'BIM' protocols etc.– along a chronicle that follows the progress of the technological tools for survey and modeling. However, if we seriously take the derivation of the term 'design' from 'drawing' ('*disegno*', in italian) and, vice versa (that is, considering that there is no drawing without design), then by 'drawing' we indicate a design prefiguration technique that goes beyond the geometry and geomatics, which often has a 'poetic', autographic, idiolectal character, despite being scientifically founded on a '(historical) phenomenology of the depicted imagination'. In other words: drawing is the techno-aesthetologic side of design.

The academic separation of interior architecture from interior design actually mark the end of the era dominated by the aesthetic principle of the 'synthesis of the arts' and the consequent identification of drawing and design. That era had started just a century ago, in the schools of the modernist avant-gardes –from the Vchutemas to the Bauhaus– who invented 'design' to demolish the distinctions between the social domains that separated the major arts, crafts and industrial manufacturing, to open up the field to an idea of total design of the environment, to generate a sort of palingenesis of the built and inhabited space. This task was most evident precisely in the creation of 'interior environments' organically configured to express intense and radical aesthetic properties, perfectly prefigured through graphic-pictorial works often endowed with an autonomous artistic value.

It is sufficient to recall the ways in which Le Corbusier, from 1925, transposed his purist 'still lives' into ''*intérieur en plan libre*'', or the unfolded axonometries by El Lissitzky (fig. 3), Piet Mondrian (fig. 4) and Theo van Doesburg, the isometric ones by Walter Gropius, or the line and collage perspectives by Ludwig Mies van der Rohe, … all works that look like real 'paintings', yet born as calculated prefigurations of 'interior spaces'.

The drawing technique ensured continuity between design and architecture, opening up towards the most diverse directions of aesthetic research. It is for this historical reason that today we can still think of the discipline of drawing in general as a 'phenomenology of the design imagination' which, defining authorial 'imaginaries', was embodied in specific 'poetics'.

Drawing for interior design was perhaps the most evident context of this poietic unfolding. In fact, each author of the Olivetti spaces –Franco Albini, Gae Aulenti, BBPR, Piero Bottoni, Carlo Scarpa, Ugo Sissa, Ettore Sottsass– prefigured them with their own expressive techniques but on a common background that conceived drawing as a tool of a *Poetics of space* intended according to the homonymous and contemporary essay by Gaston Bachelard [1957]. They considered drawing from a phenomenological point of view –a phenomenology of the imagination– referable more to Henri Bergson, Maurice Merleau-Ponty and Paul Valéry, than to Edmund Husserl; even if they did it from different aesthetics: from the neo-romantic one (Scarpa linked to John Ruskin) to the more psychedelic and (pre)postmodern one (Aulenti and Sottsass).

In the same years, Louis Kahn's environmental drawings –aimed at the eternal present of the atmospheric vibration of the architectural masses– and the hyper-technological comics of Archigram and Archizoom configured opposite aesthetics, but they were all representations made to establish the stakes of a buildable space.

Fig. 1. Xanti Schawinsky, design of the Olivetti shop in Turin, 1935. Collage, 33.3 x 47 cm.
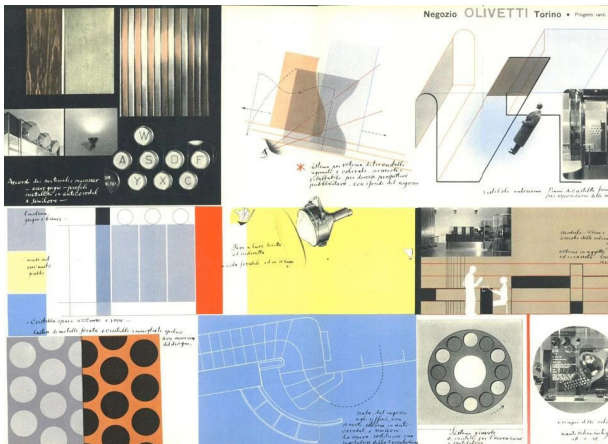
This phenomenon of drawing as a depicted distillation of an atmosphere became increasingly evident in the post-avant-gardes and along the epic of the so-called 'paper architecture' in the 70s-80s: from Aldo Rossi's theatrical 'still lives' and Arduino Cantafora's paintings, to the graphic screenplays by John Hejduk and the totemizing visions by Raimund Abraham.

In short, the history of architectural drawing could be told as a sort of extroversion of interior design, at least to the extent that the design representation tends to decant the specific ingredients of an atmosphere.

It is a multitude of cases and techniques that are almost incomparable to each other, especially for differences i) in referentiality and ii) in the social domain of the work [Gay 2020]:

i. because they are representations in very different figurative or abstract registers: from the scenographic sketch to the photorealistic rendering, from the abstract diagram for the plastic-chromatic calculation of a spatial configuration, to the concrete samples of the mood board;

ii. because they are works included in different social domains: some are figurative art objects with autonomous value, others are valid only as heuristic works, strictly functional to the development of a given building project.

It is often difficult to discriminate in which domain a drawing is inscribed; for example, those with which Peter Zumthor configured the planimetric layout of the Baths of Vals prefiguring, in an abstract composition, the plasticity, the light, the material effects, the perceptive and mereological rhythms, similar to those later achieved in the construction. The same could be said of Steven Holl's watercolours, Renato Rizzi's bas-reliefs and countless other heterogeneous and hybrid examples. This is the case of morphological study drawings based on resonances between the stylised shape of a typical landscape and the reinvented shape of buildings (fig. 5); or the almost dreamlike ones that isolate and amplify pattern elements of the urban space (fig. 6); up to those that explore essential interior taxonomies to show how the articulation of the openings alone determines very different atmospheric cases (figs. 7-9). All these very different works can only be compared through the aesthetologic topic of the 'atmospheres', a topic that has entered the architectural culture especially through the issue of the descriptive possibilities of drawing [Holl, Pallasmaa, Perez Gomez 2008; Drozd et al. 2011].

Drawing from affordances to atmospheres

According to common sense, the 'drawing for design' is typically the sketch of an industrial object: the 'concept' of a beautiful shape to be imposed on a brute 'matter' that engineering will then tackle. Drawing brings to design that broad imaginary that we could define as a 'shell morphology'. But this morphology changes a lot if we (shrewdly) believe that form and matter (soul/body) are just two opposite points of view from which we observe the same physical and cultural reality.

Although most of the drawing techniques for design concern the descriptive adequacy of the geometry of surfaces [Gay 2019], these surfaces of objects, in reality, are frontier spaces between internal and external environments with respect to individuals –both natural and artificial– and they are very different 'things' in natural (a) and artificial (b) objects.

a) The image of the 'natural shell' [Bachelard 1957, chap. V] is the most profound and 'teleonomic' archetypal example of a body suitable for separating the two (internal/exter-

Fig. 2. Ugo Sissa, project of the Olivetti shop in Rome, 1943. Sissa Archive slide, Venice.
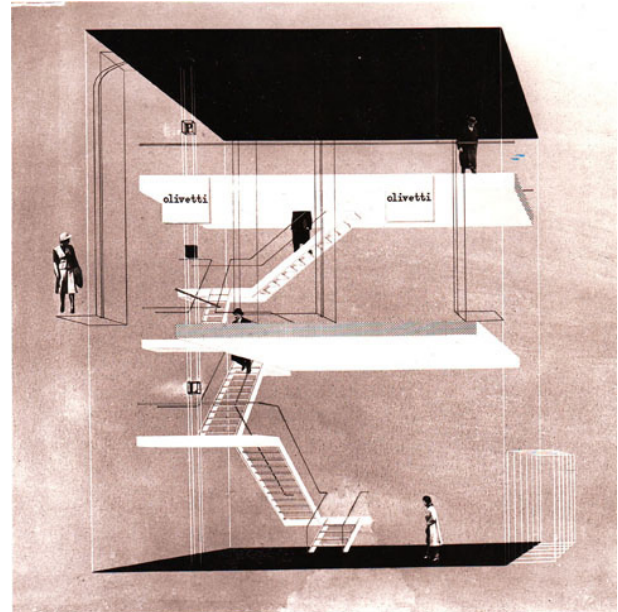
nal) constituent environments of each individual. It is the clearest example of form exactly modeled by the dialectic of natural forces (ontogenetic and phylogenetic), which –as Valéry said– do not distinguish geometry, physics and chemistry, and not even epigenesis from phylogenesis. In fact, we can reconstruct an objective descriptive (bio-morphometric) geometry and a phylogenesis of shape for each 'natural shell'. Phylogenetically, as Paolo Fabbri wrote [Thom 2006 p.14], "The variable balance of the relationships between predators and preys generates the outline –the skin, the shell or the armour– which would be the 'tactical' arrest of the organic extension in front of the hindering action of the beak, the tooth and the claw". This is how the most classic pages of the morphology of Goethian ancestry [Thompson 1942] explain forms as 'diagrams of forces' [Thompson 1942, p. 16], or as 'saliences' determined by 'pregnancies' [Thom 1988].
b) Even the shape of the artificial 'shells' can be conceived as a 'diagram of forces', or rather, as a 'constructive dia-

Fig. 3. El Lissitzky, project for the Kabinett der Abstrakten at the Provinzialmuseum in Hanover, oblique unfolded axonometry, 1927. Gouache, inks, enamels and collage on cardboard, 39.9 x 52.3 cm, Sprengel Museum Hannover.
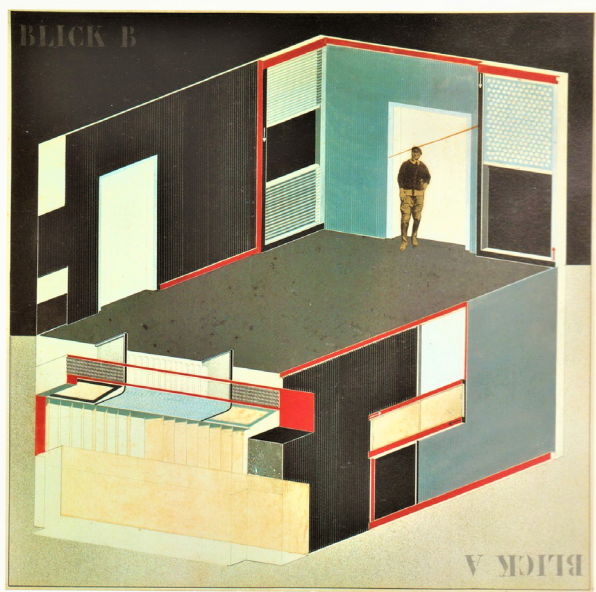
gram' [Alexander 1967, pp. 89-97], that is, factorially and parametrically mouldable. However, the artificial shells are modeled not only by 'natural' forces (pregnancies), but also by 'cultural' instances: technological procedures, stylistic deformations, iconic stereotypes etc. They are 'construction diagrams' that evolve towards greater organic complexity, passing from the abstract to the concrete, from the 'separate' to the 'syntropic'; and they do not evolve according to a Darwinian model, but rather to a Lamarckian one, that is, transmitting to the offspring the new adaptive features acquired along technical genealogies [Simondon 1958] developed in a continuous *bricolage* or "exaptation" [Pievani, Serrelli 2011].

This second meaning of design requires a qualitative leap in the definition of drawing: the passage from the abstract representation of the geometric surface of a shell to the concreteness of the environment-spaces of which that shell is a co-determined frontier. It is a qualitative leap that, first of all, concerns the cognitive limits of our imagination and depiction.

From the (phenomenological) point of view of (his) psychology of visual perception, James Gibson rightly argued that we see surfaces, but we do not see spaces: "The space outside us can be visualised, but it cannot be seen. Depth indices can only refer to a painting, a drawing, and nothing more. The third visual dimension is an erroneous application of the Cartesian concept of a three-axis coordinate system. […] Space is a myth, a ghost, a fiction of geometry" [Gibson 1999, p. 37].

According to Gibson, we perceive the surrounding environment in a completely unreflective, automatic, synaesthesic, pre-conceptual way through the 'affordances' offered to us by the real surfaces plunged in the physico-chemical pregnancies of the atmosphere. By the term 'affordance' he means what our lived body emotionally and pre-intellectually feels about its potential for interaction with the surfaces of the surrounding objects and environments; an affordance is the feeling of a potential factivity, such as 'grip', 'incorporate', 'throw', 'walk', 'climb', 'fall', 'shelter', 'sit down', 'plunge', 'ingest', 'eat', …

Particularly invoked in design theories is the notion of 'affordance of objects', often cited in functionalist theories to objectively account for the ergonomic properties of prostheses and tools: for instance the sedibility of a chair or the habitability of an interior. Designing an object is foreshadowing its affordability. But the most interesting and least studied part of the Gibsonian theory of 'affordances'

concerns, if anything, the 'environmental affordances' and those related to 'representations', i.e. those affordances which, for example, lead us to immediately perceive within the physical environment of a theatre the different and separate fictional nature of its stage portion.

Gibson's affordance is a triply objective phenomenological property because it is defined as the encounter of the objectivity of the perceiving subject's lived body with the objective morphology of the environmental body of which it is part in a given configuration of objects and subjects.

Therefore, the psycho-phenomenological notion of 'affordance' today has been completed in the aesthetological one of 'atmosphere': a topic on which a vast bibliography [1] has grown for half a century and that has gone beyond the philosophical fields of the 'new phenomenology' (Hermann Schmitz) presenting itself in other fields of study and descriptive practices –from anthropology and ethnography [Schroer, Schmitt 2020] to neuroaesthetics [Changeux 1995; Zeki 1999; Cappelletto 2012]– even in a part of the theory and critique of architecture [2], interior design and museography [Urbach 2010], built environment [3].

Although variously misunderstood and trivialized, the aesthetologic notion of 'atmosphere' has involved the whole of the design studies in a true 'atmospheric turn'. The reference to the concretely project-oriented and technical dimen-sion started from the same aesthetological and ontological debate, especially from the formidable *Atmosferologia* by Tonino Griffero [Griffero 2010] where there is no lack of references to typical landscapes, buildings and daily interior spaces, underlining the fact that (inevitably) both architects and designers prefigure 'atmospheres'. For example, Griffero notes that "generating cues for orientation, kinetic suggestions and signals, the buildings produce a wide range of atmospheres and, as authentic staged spaces, push the perceiving subject to immerse themselves in them. Thus, the architectural atmospheres modulate the patemical timbre of the pericorporeal space of the observer, and they do it in a coherent way, since –unlike other more transitory qualities– the architectural and urban forms permanently give rise to certain atmospheres. The architectural atmosphere, even if it were intended as an 'effect' (Camillo Sitte) or 'figurability' of a city (Kevin Lynch), is therefore something that is not seen, but perceived and co-produced" [Griffero 2014, p. 24].

The integral notion of (objectual, environmental and representational) 'affordance' [Griffero 2021] links the theories of design to the aesthetologic debate on 'atmospheres', which thus shows an ontological side (what is an atmosphere?) and a pragmatic and project-oriented side (how is it prefigured and inflected?). Griffero ontologically defines 'atmosphere' that (relatively) objective spatialized and lo-

Fig. 4. P. Mondrian, project for Ida Bienert's study in Dresden, cavalier unfolded axonometry, 1926. Gouache and pencil on paper, 37 x 97 cm, Staatliche Kunstsammlung Dresden.
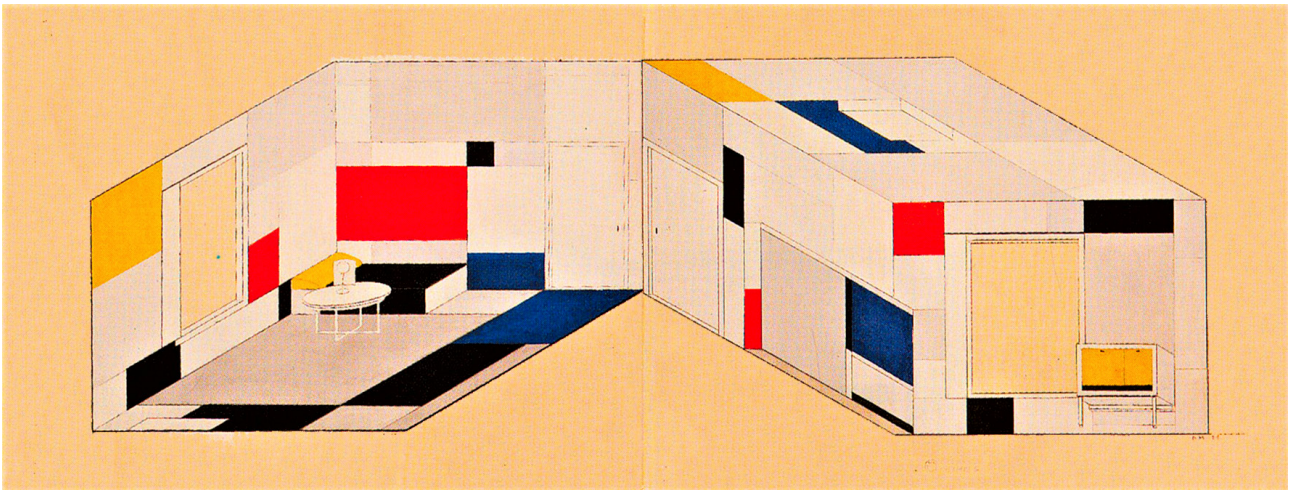
Fig. 5. F. Gay, life drawings in the Asti countryside and two pages of a study notebook, 1996. Mixed technique, 24 x 34 cm (buildings on the Monferrato hills between Asti and Casale).

calized feeling that does not lie in the perceiving subject, but inhabits the in-between woven together by the relationships between subjects and environment (physical and socio-cultural places). So, he thinks of atmospheres as: i) 'non-objects' or 'quasi-objects', ii) objective in their effects (they oppress, relax, excite, … potentially or/and actually), iii) change revising themselves over the course of the experiential duration of those who perceive them unconsciously etc. So, to what extent is the notion of 'atmosphere' a truly operable concept in design studies and through drawing? How to objectify the atmosphere if it is understood as that multiple and protean expressive quality of a localized experience, co-aroused by a multiplicity of material and immaterial factors that are epistemically incomparable with each other since their different modes of presence: realized, actualized, potential and virtual?

Calculable atmospheres

The atmospheric *prius* is a property emerging from a holistic, unrepeatable totality which does not seem to be able to be atomistically and structurally dismantled; but to what extent is it possible to describe it? Following Griffero

we discover that there are also analogies between atmospheres, therefore, of conventional types, although –unlike us– he does not consider this a concept that can be analyzed in semiotic terms. The 'culturally conventional atmospheres' are inventoriable 'social objects', partly lexicalized, necessarily implicit in the distinctions between genres –literary, cinematographic, theatrical and musical– in the morphologies of interior design or landscapes, in the case studies of museography and advertising. Atmospheres as typical 'cultural objects', categorized into genres, are also, in part, calculable in their typicality, as demonstrated in traditional and more theatrical areas of interior design, especially in retail design and related marketing studies on commercial spaces.

From marketing to semiotics, the step can be short and can lead to the possibility of a factor analysis of conventional atmospheres, especially considering some current developments in artificial intelligence.

Imagine repeating today a famous marketing study on the behavior of users of the Paris metro [Floch 1990, pp. 19-47] that Jean-Marie Floch –the great semiotic exponent of the Paris School led by Algirdas Julien Greimas– made in the 1980s. The strength of Floch's analysis was a typology (a taxonomy) that indicated the four most extreme types

Fig. 6. F. Gay, two notebook pages, 1997. Mixed technique, 24 x 34 cm (Venetian ramifications).

Fig. 7. F. Gay, two notebook pages, 2000. Drawing in felt-tip pens, 16.5 x 24 cm (morphological taxonomy of openings of an interior).
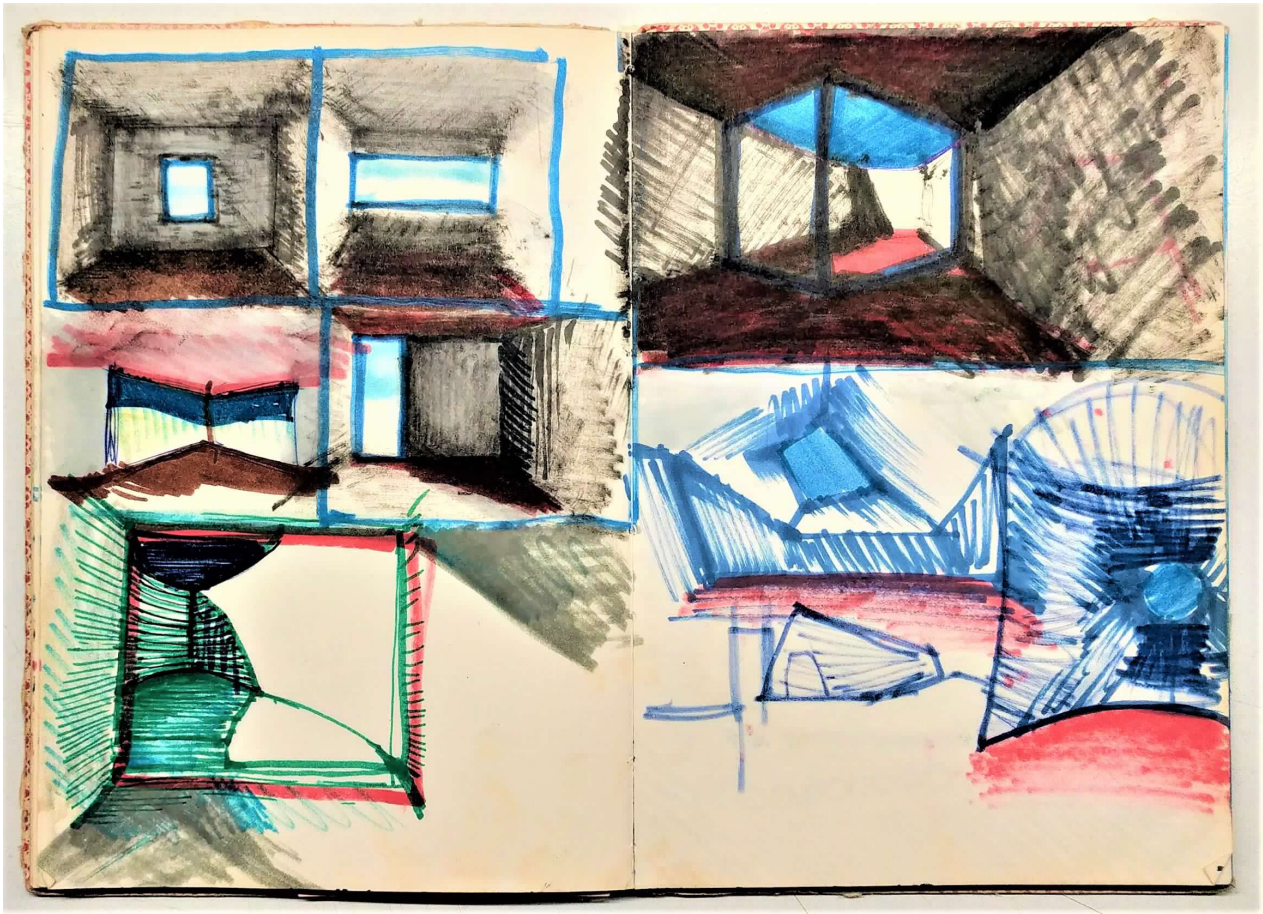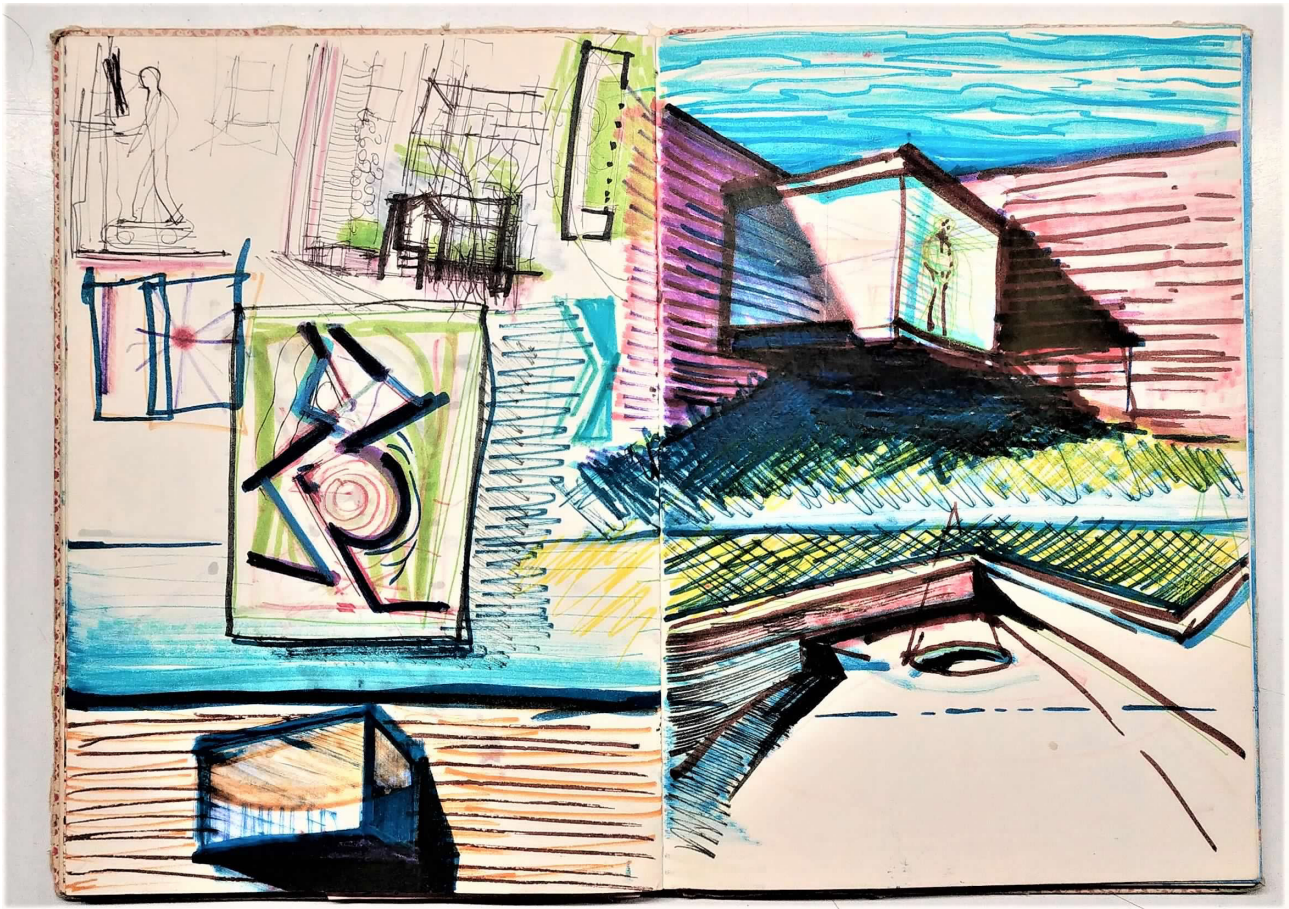
Fig. 8. F. Gay, two notebook pages, 2001. Drawing in felt-tip pens, 16.5 x 24 cm (studies for a shower room between inside and outside).

among the possible ways of enhancing the same space and place in relation to whom and what lives in it (fig. 10). The same space was that of the complex of the metropolitan stations of the capital, but rigorously (narratologically) defined by the 'journey' intended as a unitary and 'syncretic text' (referable at the same time to different semiotic systems), structured in action programs and actorial roles.

The analysis was based on the (ethnographic) observation and recording on site of the behaviors deployed in the same place, behaviors that were directly comparable in their different ways of enhancing spatial displacement. The four extreme behavior terms that were empirically detected –'explorers, sleepwalkers, professionals and *flâneurs*'– were not intended to indicate 'social (or psychological) types', but moments and ways in which the subjects grasped the given (morphological and mereological) affordances of the place in their course of action. In other words: the labels do not try to indicate who is 'such', but how, when and where they are such.

Floch takes these four extreme 'modes' as the four terms that derive from the projection on the semiotic square (fig. 10) of the semantic category of 'continuity vs. discontinuity' of the given experienced space and fixed them as follows:

- ''explorers'' those who value the features of 'discontinuity' in spatial perception, appreciating the change in perceptual rhythms, but only to be able to identify, oppose and correlate places, in order to cognitively map them in relation to the rest of the urban space;
- ''sleepwalkers'' –as opposed to ''explorers''–, those who, plunged in reading or listening, or letting themselves be carried away by the flow of the crowd, value the pure spatial 'continuity' anaesthetised in a neutral everyday life, appreciating the perceptive characteristics of a comfortable regularity and spatial fluidity;
- ''professionals'' those who –denying the explorer's adventurous space– knowingly minimising the path, avoiding any obstacle with a fluid path, are interested in the pure functionality of the stations, in accessibility and in their equipment, therefore in the enhancement of the term ''spatial non-discontinuity'';
- ''*flâneurs*'' those who walk in search of the unexpected, ready to treasure accidents and deviant programs, always available for interactions that multiply the potential of the journey: figures opposed to 'professionals' and who deny the space of 'sleepwalkers', concentrate on the values of 'non-continuity' of the local space.

In the course of his experience, each traveller can enhance, from time to time, different potentials and virtualities of the same objective situation. The essential thing is that in every situation it is not only the subject, but also the atmosphere that is more or less suited to ''explorers, sleepwalkers, professionals and *flâneurs*'', that is, more or less congenial to a given form of spatial enhancement, presenting the characteristics of a feeling that can only be amended within certain limits. Therefore, the four morphologies and mereologies that Floch gave of that same actually lived place provided the Parisian designers with precise indications for identifying the generative components of a desired atmosphere.

The semiotic approach therefore offers the methodological starting point for translating the poetics of space into a morphology. Although in structural semiotics the notion of 'atmosphere' was not used forty years ago, in the thirty years since Floch's work the structural theory of Greimassian tradition has evolved by expanding the analysis limits far beyond the notion of 'text', acquiring a 'semiotics of practices' [Fontanille 2008] based on a model of the 'generative process of the plane of expression' divided into levels (figure, sign, text, object, practice, strategy, *ethos*). In short, semiotic theory has adopted a theoretical framework that finally allows us to analyze which aspects of an object and of a practical scene connect with each other, generating an atmospheric affordance.

Finally, in addition to the possibility of better articulating the psychological notion of affordance of objects and environments, nowadays we also have new technologies of data retrieval. At the time Floch had made use of sketches and interviews, but today we could use many other digital tools for tracking the behavior of travellers, both in their physical journeys and in their consumption choices on web channels –as has been happening for some time in the tracking of our smartphones, PCs, tablets, bracelets, … through Deep Learning software–, and in the detection of people's biological parameters that are indicative of part of their emotional states.

At the same time, the rapid development of computer applications of 'pattern recognition' –through algorithms and computational models in the types of 'neural networks'– allows us 1°) to deal with digital images of any format, coming from huge data sets, and 2°) to obtain synthetic representations according to parameters referring to different classes of qualitative features.

In short, today we are in the condition of having to integrate the possibilities offered by artificial aesthetics [Manovich,

Fig. 9. F. Gay, two notebook pages, 2000. Drawing in felt-tip pens, 16.5 x 24 cm (cases of openings).
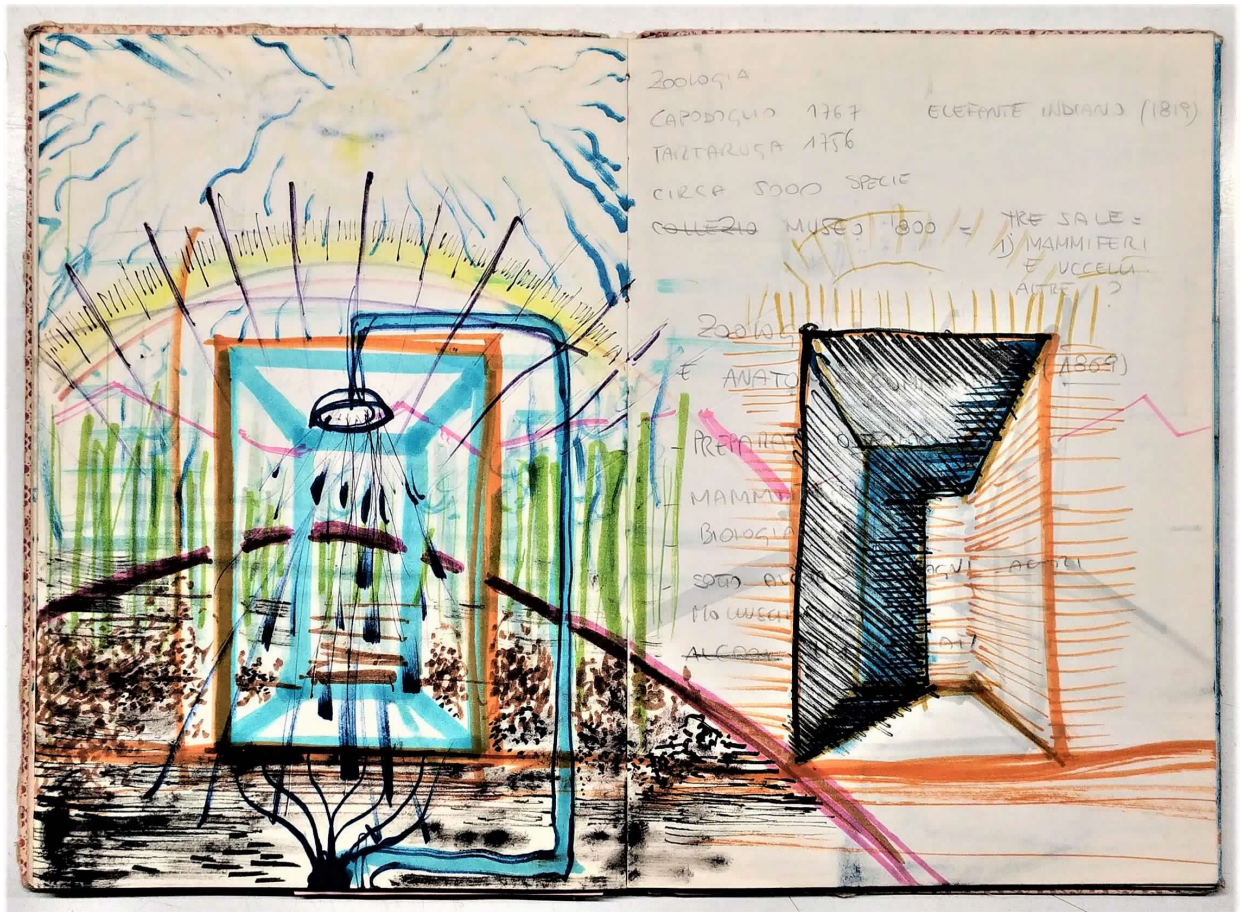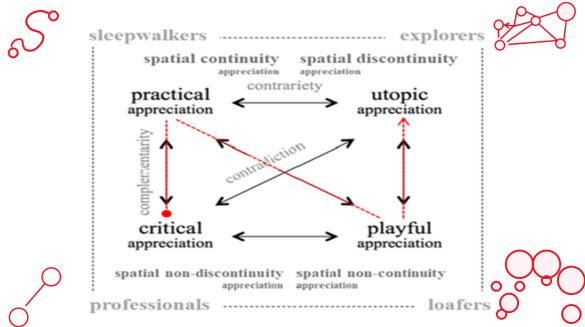
Fig. 10. The *taxonomy of spatial enhancement modes used by J.-M. Floch in the analysis of the Paris metro users' behaviors: from Floch 1990.*

Fig. 11. *Example of modification of an interior image recognition software by introducing Floch' axiological principles.*

Arielli 2022] in terms of the natural intelligence of the topic in question.

In this sense, for some years, software has been experimented [for example Kim, Lee 2020] to assist interior design by producing illustrative samples of interior design stylistic classes, or collections of images that are roughly equivalent to prototypical atmospheres, conventionally attributed to interiors or landscapes. The results still seem disappointing because their definition of 'style' is limited to a few stereotypical classes. But these experiments are interesting for the fact that they are not only given *a priori* classifications, but also *a posteriori* taxonomies, through procedures on immense lexical and iconic databases that are accessible online.

Properly developed, these systems could lend themselves to a doxastic study of the sensory categories conventionally attributed to materials, shapes, textures, colors, spatial patterns, paths, interfaces,... of interiors. The analysis could, first of all, address the plastic and iconic qualities of the interiors. On the one hand, this consists of the eidetic geometric qualities, the sensory properties of the materials, the olfactory, acoustic, haptic properties of the surface configurations, lighting, kinesthetic properties etc. On the other hand, it concerns the evocative (analogical) qualities, qualities related to the potential courses of action in practical scenes of interiors, seen as coercive constraints of the spatial articulation in facilitating practices coded as plausible or implausible.

Conclusions

By shifting the object of the drawing for design from the geometry of the surfaces to the aesthetology of the atmospheres, it seems that only authorial poetic answers can be given, only specific recipes for depiction or construction of ad hoc atmospheres. Here we tried to argue another thesis, a more optimistic and adventurous one, which could sound like this: in addition to indicating poetics of atmospheres, it is possible to provide specific morphologies and transform them into huge structured atlases and scattered archives of data about categorizations into genres of spaces.

In terms of Thom's semiophysics [1988], we would say that 'atmospheres' are integral saliences and that they can be partially analyzed, through the innumerable facets offered by the physical and cultural pregnancies that determine them. These innumerable possible analyses may turn out to be more or less relevant, fragmentary, doxastic, depending on which features of an atmosphere they assume among the decisive ones. In addition to their relevance, such analyses must be clear in their semantic structure and their coherence can only be defined through a clear ontology of atmospheres in its implacable vagueness.

Clear refractions of this intrinsic vagueness can be given by using clear semiotic models such as those we have exemplified by mentioning the axiology that Floch gave of the modes of spatial enhancement.

The analysis of cases and atmospherologic categories with the use of Floch's axiology (see, for instance, fig. 11) allows a study of the interior design genres by processing huge data sets with Deep Learning tools. In this case, Floch's semiotic square is transformed into a map with two orthogonal coordinates which identify the pair of initial values of each processed record and which will compose a final atlas in continuous stabilisation. Obviously, the condition prior to the functioning of the survey system of an artificial aesthetic categorization is the semantic coherence of the entire structure of the acquired and processed records.

The semiotic coherence of the analysis is the feature that also allows the integration of artificial aesthetics in the natural exercise of design. Even when the drawing is traced by hand, it is the semiotic refraction of certain atmospheric factors that guides the hand in portraying or graphically delineating an atmosphere on paper (see, for instance, figs. 5, 6), or in deciding it along a spectrum of alternatives and possible variations (see, for instance, figs. 7-10).

Notes

[1] The most up-to-date bibliography is the one produced by the Atmospheric Spaces research community, directed by Tonino Griffero. Available and downloadable online at: <www.atmosphericspaces.wordpress.com/literature/> (accessed 2022 October 29).

[2] Starting from Augoyard 1995; Wigley 1998.

[3] Suffice it to mention the vast research network *Ambiances*, and magazine published online: <www.journals.openedition.org/ambiances/> (accessed 2022 October 29).

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