

Connecting. Notes and Exercises for a Theory of the Practice of *Disegno* of the Visual Form

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Premise

First, I would like to express my contentment that the theme chosen for the conference consists of a verb related to the action of *Disegno*. For me, *Disegno*, in any of its forms, is an action, a practice consubstantial with a thought whose end, as an instrument of its expression, is (etymologically) always entirely involved. Indeed, I maintain that any authentic reflection on *Disegno* cannot overlook considerations specifically reserved for the modes of action; it therefore cannot but help to contribute to building a theory of its practice.

I have claimed elsewhere that “a theory of the practice of *Disegno* can be none other than a thought for thinking about the means of acting in *Disegno* itself” [Cervellini 2016].

In my opinion, this statement, within the entirely particular relationship between theory and practice, basically expresses the way of operating and the expressive phenomenology of *Disegno* throughout its history. In fact, it is also (and especially) the fruit of multiple practices that are built and dismantled through the exercise of *Disegno* over time, of which said practices are simultaneously the products and conditions necessary for their realization. In this sense, I have personally developed the conviction that such practices can be created specifically within themselves, without diverging from the order of their actions.

This is why it is important to discuss *Connecting*, which I consider an excellent way of operating in *Disegno*, as I will aim to argue and support with some illustrative images taken from classes I taught some years ago.

This article was written upon invitation to frame the topic, not submitted to anonymous review, published under the editorial director's responsibility.

Reflections on Connecting and Similar Activities

I use the word 'connection' in the linguistic sense of 'syntactic nexus'. This use is based on a personal conviction regarding the possibility of having knowledge about the genesis and development of the visual form through *Disegno* via a method that I would describe as 'grammatical and syntactic' [Cervellini 2016]. Indeed, I consider 'connecting' –beyond its new digital stamp– as one of the actions that has always operated synonymously, in succession, and/or in parallel with 'creation' of the visual form.

For brevity, I will limit myself to listing some of these actions, aiming to attribute some characteristics to them. These are, in particular, 'inventing/imitating', 'recalling/classifying, associating/connecting', 'composing/constructing', and finally 'extracting' and 'algorithmically searching the Internet to find correlations' (that is, digital actions similar to the so-called web scraping for data mining, but in an absolutely different sense [1]). In describing each, I have intentionally and expediently considered them as operating in binary interrelated pairs as I believe that they are frequently performed (albeit not always or exclusively).

Inventing/imitating

The first action is, in the real sense of the word, the initial action, but precisely because of this original strength it often goes on to acquire the character considered to distinguish the entire creative operation. I would like to clarify, however, that I prefer 'inventing' over 'ideating', both for its pragmatic character, that is, it can "give life and concreteness to the contents of fantasy and imagination", and because it also suggestively enunciates the "eventuality of a happy, unexpected realization" (Devoto, Oli 1995). These specifications are the prerogative of *Disegno* as a creative form of imaginative thought, from which, however, it does not entirely derive. I instead consider the term 'ideation' to be compromised by a semantic distortion due to the idealistic interpretation of creative processes; a distortion in that the etymon of 'idea' is 'eidos', that is, 'form', a concept referring to the content of perceptible experience.

In my opinion, instead, the *inventing/imitating* nexus lies in the fact that 'invention' is rarely creation from nothing and the cases in which it is are not often those with the best results. However, history always shows

that 'invention' in many cases follows 'imitation' by assuming suggestive material –logical, iconic, poetic etc., perhaps found on a different level, even problematically lower– that, through a series of transformations and developments, can move to another conceptual level. In addition, as suggested by the theme, 'something' (perhaps even only an evanescent 'formal blob') is nevertheless always present in the designer's technical memory that, through either ability or causality, glimpsing or imagining amid the surroundings, leads to an unexpected discovery, (that is, etymologically, 'inventing'). With regard to the rest, in the inventive phase of any visual project, *Disegno* does not proceed from a blank slate, but rather works along the boundaries of contact between the various positions of thought. These can be summarized in three dual polarities, that is, between function and standard, between conflict and rule, and one, more properly linguistic, between signifier (the sign and/or its specific action of signifying) and the system of meanings (that is, the linguistic system in its entirety). It is precisely in the moment of development that *Disegno* proceeds and induces in its creator a conscious explanation with respect to those same polarities.

Recalling/classifying

The structuring of heuristic syntactic nexus peculiar to 'connecting' very often begins with 'recollection' and nearly always implies the concurrent sudden appearance of a classification, both initially in the search for epiphanic similarities with the memory, and during progress in the continuous comparison of object-based operations to be progressively implemented. However, 'recalling' (together with 'seeing directly' and 'feeling', or 'experiencing' a sensation) is, according to the basic theses by Emilio Garroni, one of the three certain and not insolubly cyclic/tautological modes of forming a mental image [Garroni 2005].

I believe, however, that on the exquisitely subjective plane of *Disegno*, memory acts not just to reintegrate content related to missed or forgotten experiences, but especially to restore meaning to those in the present, building a network of associations that allow experiences to be reinterpreted in the present. This, for example, is a common experience in traditional *Disegno*, where it is the hand itself, requested by the unveiling of the sense of the image being formed, that

recalls meaningful icons from one's personal 'museum' as it is being composed. Paradoxically, with respect to that unavoidable cognitive experience, computers may reveal all their ambivalence: even if they contain an enormous basin of data and information, they do not always help to reorganize the references. Today, very subtly, automatic associations are often suggested by such mechanisms to promote consumption, contributing to impoverishing the true function of memory intended as a capacity for subjective reinterpretation, i.e. the 'reconstruction' of a new network of meanings in relation to the events themselves.

Inventive classification

'Inventive classification' is tied to recalling as a taxonomy for something known or still partly unknown, but of which the graphical links may represent a trace, almost a sort of deep underlying structure. Classifying entails the simultaneous mental formation of identities, similarities, and differences among different schemes, almost like dramatic writing.

Connecting/associating

I mentioned connecting as the creation of syntactic nexus at the beginning, and the programme of the conference itself with its keywords is also rich with starting points. Here I am interested in noting the similarity and difference with 'associating', an expression that implies a sort of uniformity among the components to be combined, which is instead not required by connection. Association is therefore the typical morphological operation of an active linguistic/spatial society, for example the iteration of equal iconic individuals (points, lines, etc.) as in punctuated rhythmic series.

Association gives rise to the suggestion to work with more elements, trying to institute among them relationships of hierarchy, symmetry, balance, or even asymmetry and tension, which may give rise to order or conflicts, friction, or deformation of one part with respect to an adjacent or interfering part.

Composing/constructing

In teaching, I have always considered compositions to be experimentation 'according to a plan' rather than free digression and in this sense I have always recommended the formation of drawings to be situated on the plane of a structure, that is, a "set of elements or-

ganized according to constructed internal dependencies" [Hjelmslev 1998].

These are meaningful structures in *self-described* figures, that is, figures that first express as meaning their process of formation, through operations that are progressively implemented to create their figure. The principal aim of 'composing' should be to cause architecture and design students to concretely reflect on design as a constructive activity, the foundation of a spatial model and a cohesive edifice of signs with their specific attributes (geometry, dimensions, colors, textures). Exemplifying at least the first of the preceding terms with operations such as 'translating', 'rotating', 'extruding', 'folding', 'cutting', 'everything', 'softening', 'reflecting', etc., can and should be concrete acts in both the traditional and digital realms of a 'configurative form/thought' and not just applications of graphical tools.

Extracting and algorithmically searching the Internet to find correlations

In my interpretation, this is a binary operation of interaction using the Internet and various programmes. It permits the exploration of familiar and unfamiliar places, proceeding through continuous identifications, sampling and possibly manipulating iconic texts according to the itinerary, which is at times also vague, and guided by the mental connections occasionally generated when searching for a form that is more or less distinctly desired. This dual digital action, in my opinion, corresponds in part to the traditional manual 'assembly drawing' of a graphical device, which has become a complex textual construction in that it is frequently multimedia and multi-code based. This personalized construction was defined by Sherry Turkle, which is in my opinion also effectively the work of DIY [2]: the new architects, creators of the techniques of 'random' design are at the heart of the new DIYers.

Connection Exercises

In the present contribution, the word 'connection' is used in the linguistic sense as a syntactic nexus in the conviction that it is possible to have knowledge about the genesis and development of the visual form through *Disegno* according to a 'grammatical and syntactic' method.

In this sense, the treatment of the actions is integrated with some exercises –of connection, in fact– and example images of varying complexity developed ‘according to a plan’ as educational activities for future architects and designers specifically dedicated to experimenting with modes of structuring visual forms.

The meaning of these syntactic exercises –which aim to supply the text with example images– lies first in experimenting with a code to order the writing with which compactness and intensity are regulated on the page, moving easily from continuity to discontinuity, from consonance to dissonance, etc. Many exercises aimed to solicit ‘hybrids’ from the experimentation, although with the recommendation to predefine a strategy to organize the various rules. The scope was to constitute a body of figures with their rules of formation, a repertoire of themed experiments and developmental variations –for whose realization *Disegno* lies at the base, centre, and summit of every action.

These ‘planned’ exercises aimed at a specific objective: developing analytical and operational knowledge about the form and its generating procedures. *Disegno* can therefore be defined as ‘morphogenetic’ and its exercises as ‘training exercises’, i.e. experiments on defined topics to “extract the form from that ‘untranslatable’ intuitive sphere wherein lies its truest and deepest meaning” [Neri 1996, p. 72].

In *Disegno*, the first reference for the compositional analysis of the initial elements of figurative composition lies not only in the so-called ‘elementalist grammar’, which is an ancient tradition, but above all in its Bauhaus redefinition, while the second reference is found in Chomsky’s generative grammar.

This is a ‘constructive and procedural’ concept of *Disegno* and ‘formation’ whose product represents a building that is integral in its parts through logical and concrete techniques and which, conversely, affirms that any figure or formal composition can be constructed and/or deconstructed according to principles that can be formulated as rules of art.

In this setup, morphological problems immediately become syntagmatic, syntactic, while some syntagmatic relationships, even among simple elements, may become, so to speak, morphological characterizations of elements composed of entire works.

The syntagmatic nexus is not an object; it does not regard any element in itself or its place separately, but rather, it

is the relationship between them, the way in which they are manifested, and it is easy to see that by simultaneously increasing the complexity, that is, the number and the attributes and variability of the elements, this system of nexus is structured as a very intertwined chain. The syntagmatic nexus therefore allows a concrete relationship between primary formal elements to be analysed precisely because they are the rules used to generate recurring situations, each with its own peculiarity.

This suggests considering ‘adjustability’ as an axiom for testing ‘according to a plan’ in the repetition/evolution of some figures that, while always different, maintain a structural link with the basic one and subsequent ones. That is, to generate a series of transformations “concluded within [a] grammatical system, the value of each experience consists of modifications introduced in the code of the system, which are, however, understood by the code and established as a range of possibilities” [Menna 1983, p. 75].

This is the procedure tested in the various exercises briefly illustrated below, constructing and investigating linear rhythms and combining them using simple figures/diagrams such as the comb, cross, and grid. These are typical syntagmatic structures chosen methodically to assess their teaching efficacy; not only that, they entail the capacity to manipulate mechanisms with a decent complexity.

Linear Series and Systems

Interfering associations/connections among a series of bands (fig. 1)

In clear reference to Josef Albers, the *disegni* constituting the panel investigate the effects generated on the surface through juxtaposition, alternation, and chromatic and dimensional contrast of linear bands, that is, segments with a sufficient thickness to create a combination of surfaces and insert rhythmic successions in the series through the qualitative weighted presence of color.

The empirical surface of the background becomes a plane of metric/proportional precision used to test the shape-generating capacity of primary colors –for example, opposing the ‘negative’ spatiality of blue or black with the ‘positive’ spatiality of yellow or red– and of the various components in a play of interweaving, tooting, and overlapping.

While giving rise to the formation of simple morphemes, this 'game' at times also produces the perceptual effect of cavities –with each color suggesting a different depth, even if they lie on the same plane– and dematerializing the borders, the result of an instantaneous visual deviation between the physical reality of the image and the illusion it creates.

More in general, the experimentation on linear bands accentuates the repetitive cadence of the elements, 'measuring' it, and therefore providing the basis on which the sequence can be calculated. The general principle is thus tested, which is valid for each rigorous formal construction according to which a quantity, and particularly a quantity produced through repetition, may be figuratively 'measured' only by another heterogeneous entity (B measures A).

Associations/connections of linear systems (figs. 2-4)

The three panels are characterized by a particular uniformity and together create a system. They therefore constitute a unique experiment in which the syntactic exercises are extended to entire repetitive systems, composing them in a combinatorial way. The main problem of these *disegni* was to tightly insert each graphical motive and its variations in an overall structure, i.e. imagining and representing some small parts of its possible growth according to a single direction.

Each column presents three combinatorial variations with the same or very similar constituent elements, where the general structure of the various images is formed based on rules such as series and rhythmic alternation, modular collimation, regulation of the sustainable repetitive limits of each axis of support, etc. In contrast, the variations are obtained either by translating the position of preformed groups or by moving some 'strategic' elements in the overall structure. In these images, in fact, the connections intensify, tightening the various 'threads' with purposefully different degrees of compactness (in this sense it is apt to refer to the *disegni* of Anni Albers for the *Bauhaus weaving workshop*).

In particular, the first two panels (figs. 2, 3) show aggregations with a hierarchically pre-formed pattern, that is, aggregations in which some larger elements measure and order of the related sub-multiples. The *disegni* in the last panel (fig. 4) are instead in 'low relief', that is, they have a slight three dimensionality. While in an essentially planar layout, the sculptural/tectonic accentuation is thereby

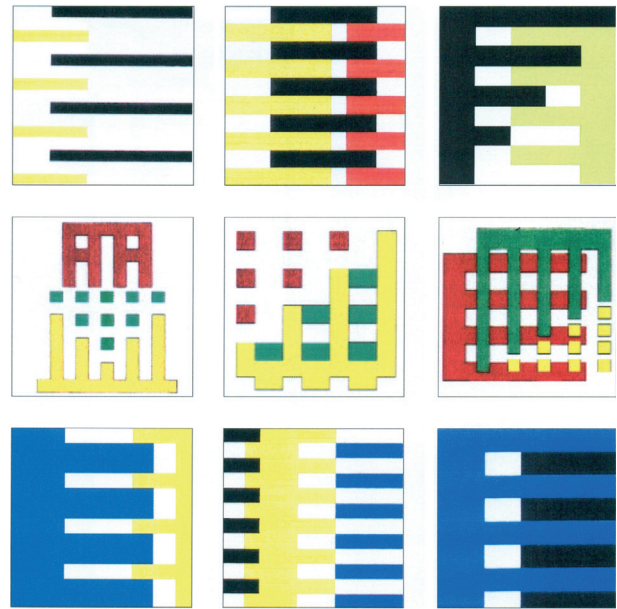


Fig. 1. Interfering associations/connections among a series of bands [Cervellini 2012, pp. 160, 161].

highlighted. This is especially clear in the overlapping of systems of uniform volumetric elements that stand out above each other; or where the elements that act as 'support' three-dimensionally distinguish the support from what is supported, etc.

The Comb as a Figure and Formal Structure

The comb figure/scheme serves to contain a series of linear elements, the so-called 'teeth' or 'sticks', on a 'predominant line' of distribution and measure their development, establishing the maximum threshold of repetition and simultaneously conferring and distributing a regulated layout and various spatial qualities in the interstitial voids.

These configuring functions explain the reason for the frequent use of this figure/scheme in architectural composition. On this scale, the variable alternation between the filled areas of the 'teeth' and the voids of the inter-

vals generate different figural and spatial specifics, such as 'semi-cuts', 'ambulacra', 'perspective stage wings', etc. The distribution line also requires a detailed design for the nodes where the 'sticks' meet it –most commonly composed of support or interlocking– and the related angle of incidence, which in the canonical diagram is a right angle, but it may vary to follow, for example, the particular geometry of the urban system.

This figure was often the object of teaching experimentation. The related figures are therefore considered as both descriptive classifications and heuristic variations on models used to develop formal compositions.

Comb connections between linear elements (fig. 5)

By closing the series in one direction, the support axis of the comb defines the limit and the 'right' proportion of growth in the other. At the same time, it is the metronome of the rhythm, therefore marking the rate of repetitive scanning: it is both the root of the teeth and the metre stick that marks their sequence, with a beginning, development, and end.

In the lower figures, the diagram shows some interesting variations obtained by sectioning the teeth along the diagonal of the real or virtual rectangle (or square) according to which the comb occupies the surface. This permits different configurations: from one with a variable 'backbone' formation; to one with a positive/negative inversion of the size of the sticks; to one created from a series of 'empty spaces' or crossing at the rungs of the sticks, or with trapezoidal courts always with a different size.

Double-comb connections of linear series (fig. 6)

In the largest *disegni*, the compositions consist of a montage of two comb series with the support axes situated outside and the respective series interfering according to various alternation devices. The set of sticks therefore produces a variably oscillating rhythmic effect from the centre towards the edges.

At the same time, the interstitial spaces follow each other in a labyrinth that places compressed and dilated regions in cross-cutting correspondence. In the last drawing at the bottom, the figure of the backbone reappears (with the sticks repeated on both sides of the axis), which recomposes a symmetric system. The smaller squares focus on the details of further variations in applying the scheme which derive from the interchangeability of an

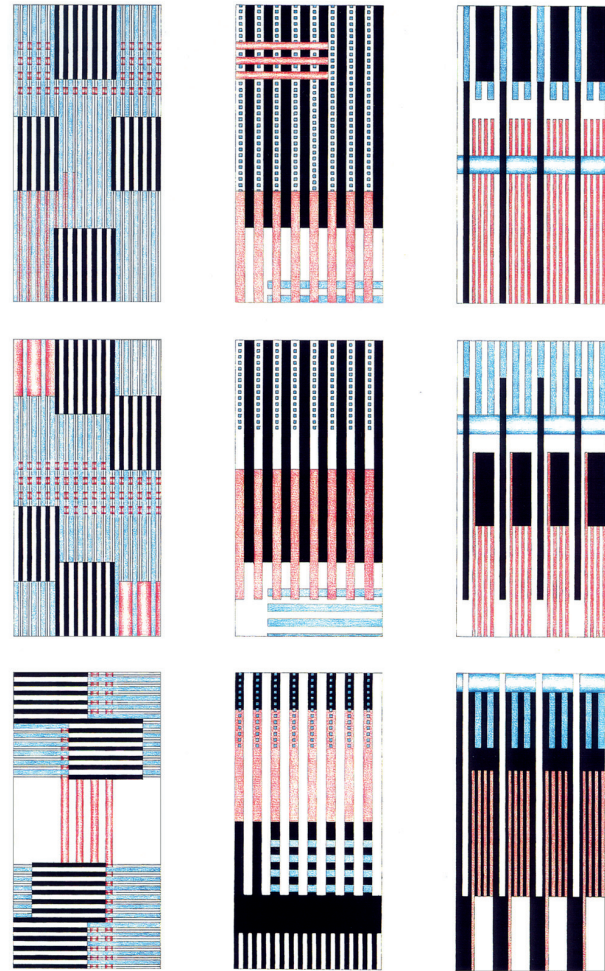


Fig. 2. Associations/connections of linear systems [Cervellini 2012, p. 162].

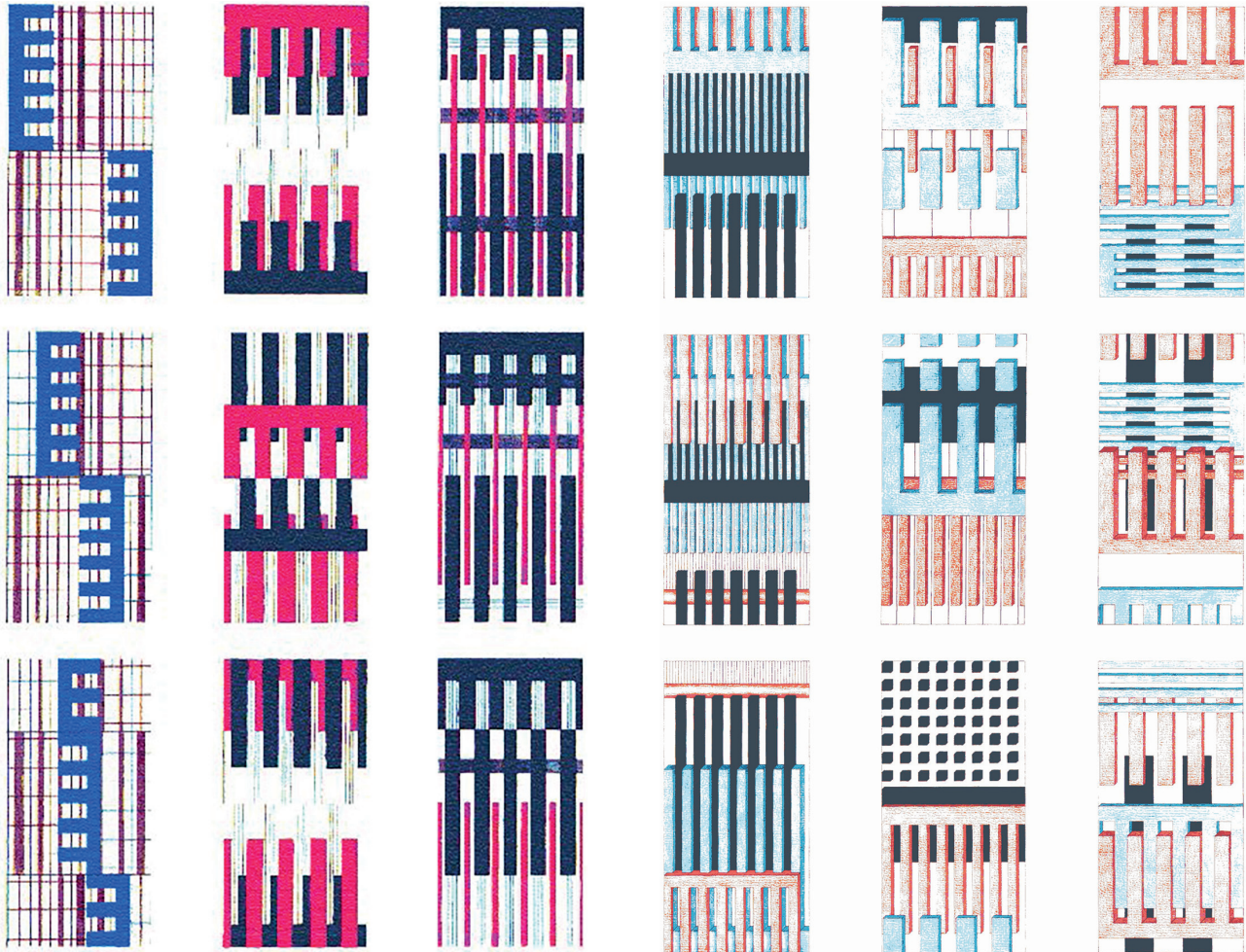


Fig. 3. Associations/connections of linear systems [Cervellini 2012, p. 163].

Fig. 4. Associations/connections of linear systems [Cervellini 2012, p. 164].

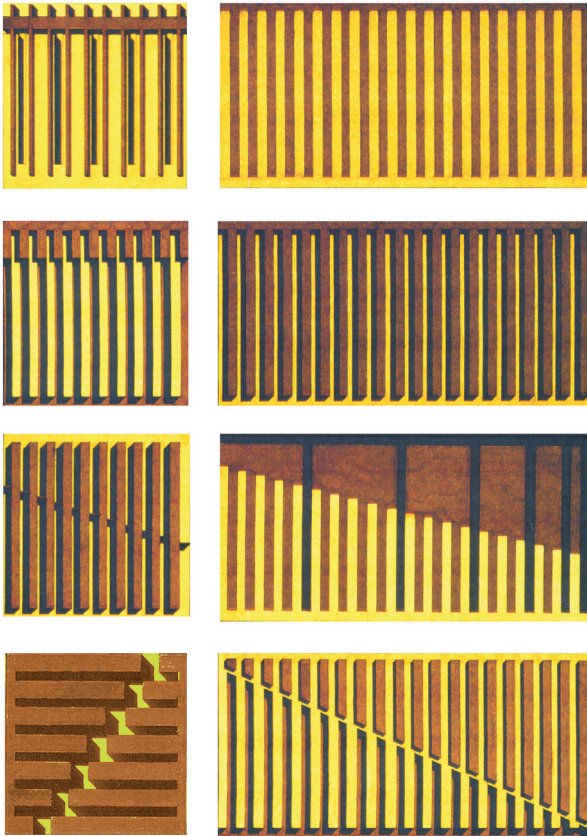


Fig. 5. Comb connections between linear elements [Cervellini 2012, p. 158].

entire element in a series with a 'prefabricated' sum of submultiples, that is, grouped around a distribution device (like a 'racquet', 'trident', etc.).

The Cross as a Figure and Formal Structure

As Vasilij Kandinskij said, two lines, one horizontal and one vertical, centred on a square surface, "know no repetition. They thus develop a powerful sound, which can never entirely be drowned" [Kandinskij 1982, p. 68]. The right angle is the irreducible opposition of two movements; four right angles combined form a cross, that is, the perfect balance of different movements that cancel each other reciprocally. The cross is therefore a strong sign that denotes the 'fixed' centre and greatest resistance of a system, but it is also simultaneously the foundation for dynamically discerning size at large distances, extended to the city and the entire territory. And yet, despite the unique power of its configuration, having become a symbol par excellence, a cross can also be formed through a random adventure, rolling dice on a chessboard, as Paul Klee said [Klee 1959, pp. 223 & ff.] and as Sol LeWitt demonstrated by classifying the possible combinations of 5 cubes on a 5 × 5 chessboard [LeWitt 1977].

The cross as a figure and organizational method (fig. 7)
 Strong with its symbolic meaning and history, the cross is set above all as an 'absolute figure'—an archetypal sign—thus attracting perception to itself, nearly to placing in the background its exceptional capacity to structure not only each concluded geometry, but also an indefinite, still unlimited surface. The cross, however, is also an organizational scheme, as when tracing two orthogonal axes on the territory; it is therefore a foundational act, the mark of borders, a symbol of power and legislation, and also a principle of orientation, in the physical space as well as on the map.

Compositions of cross figures with point-like, linear, and volumetric elements (fig. 8)

The panel shows an array of small compositions in which many of the basic grammatical issues are re-worked according to an essentially uniform interpretation. By alternating plane sections with box-like volumes, the formative strength of one or more schemes

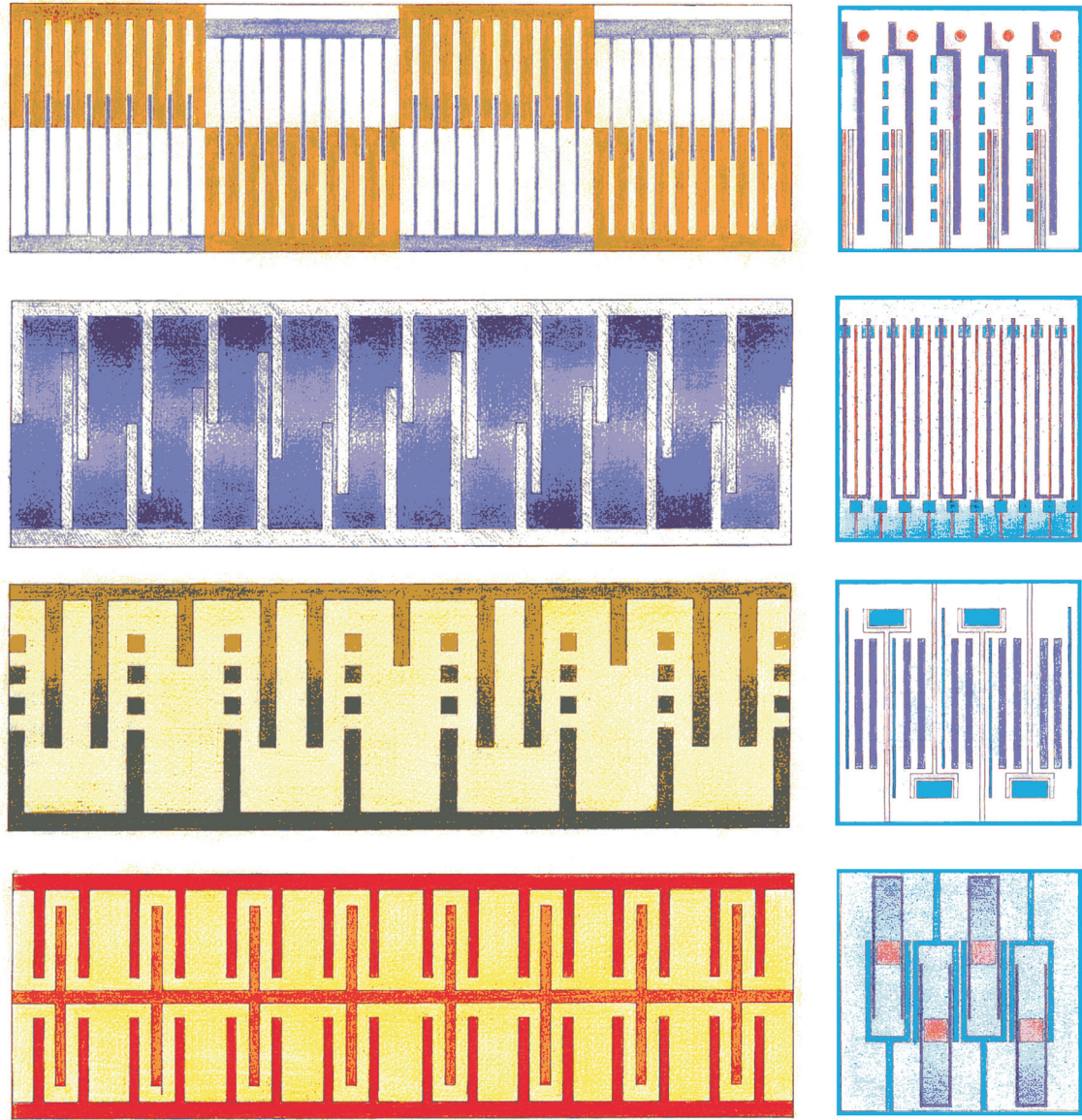


Fig. 6. Double-comb connections of linear series [Cervellini 2012, p. 159].

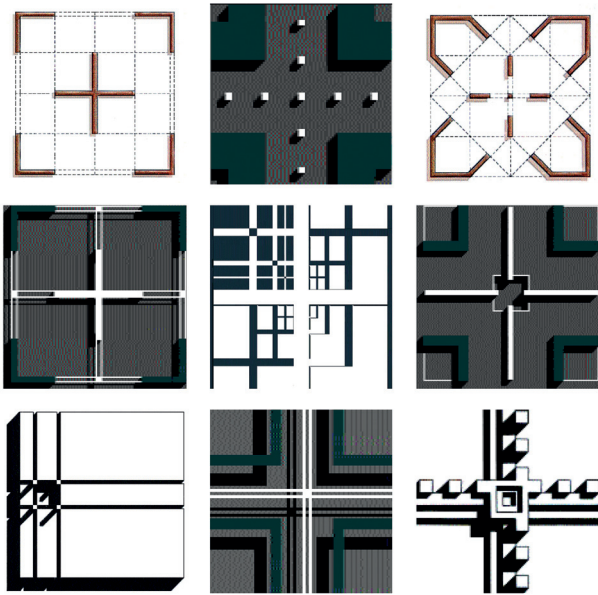


Fig. 7. The cross as a figure and organizational method [Cervellini 2012, p. 166].

is investigated, both intensifying the structural characteristics and attempting to soften its rigidity. This is particularly evident in this panel, where the particular interest focuses on the node of the cross –the ‘transept’– either exalting it as the fulcrum of the entire composition –emptying it, carving it out, or concentrating the intersection of the elements there– or reducing its value, overloading the continuity of one of its two axes. More in general, the panel expresses an idea of the composition circulated in a recent era: as the study of nodes, that is, a technique to formally and also technologically accentuate some points to hold everything together.

The Grid as a Figure and Formal Structure

The figure of the grid is an expression of the morphological connection composed of the repetition and intersection on a surface (or in a three-dimensional space) of two or more series of parallel lines (or three-

dimensional linear elements), either perpendicular or incident at other angles. In current nomenclature, the elements of a grid are the ‘reticle’, i.e. the set of lines and their points of intersection, and the ‘mesh’, i.e. the set of surface units delimited by the reticles, also called ‘quad reticle’ in the case in which the grid is binary, i.e. composed of only two ensembles.

When, in the most common case of a binary grid, the sequence of linear series has a constant, equal rhythm in the two directions, the grid is modular; if the series are also orthogonal, the most widespread grid is produced, the square grid. As Klee said, a grid may be formed through the dynamic intersection of two “basic structural rhythms”, a linear one from top to bottom, and an analogous one from left to right. Since it is the “sum of equal units” repeated in two directions, it rhythmically controls the plane via its measured occupancy. The structural characteristics of the grid are its ability to be ‘multiplied’ and ‘divided’, thereby allowing for increases or partial fractioning without altering the rhythmic principle. The grid therefore represents the ‘possession’ of a plane surface by a system of lines. In fact, it may unfold on the whole of the plane according to the infinite underlying pattern of its coordinates, selecting its tracks from it each time. Through the reticle, the logical/formal procedure of repetition, which the grid possesses genetically, becomes a syntactic/compositional rule that simply makes a metaphor of the plane with a radical figurative elementalism.

There are basically two primary syntactic nodes of connection in grids. The first originates either in the common ‘direction’ of the series of linear elements (or those similar to linear three-dimensional elements), or in a uniform ‘orientation’, whenever the components of the grid itself are the bands (these also linear segments but with a two-dimensional thickness).

Since the direction is identical for each series, like the orientation of the bands (which may, however, also pertain to translated or overlapping planes), the peculiar, rhythmic phenomenology of parallelism dominates in the figure, only apparently expressing a grammatical presence of ‘time’ [4], which, in the grid, as in all ‘fixed’ visual forms, does not constitute an intrinsic attribute of the final layout. The rhythm of a grid denotes its static paratactic construction through the juxtaposition of its series of linear elements. The spatial measure of the interval between the parallel lines gives it a specific re-

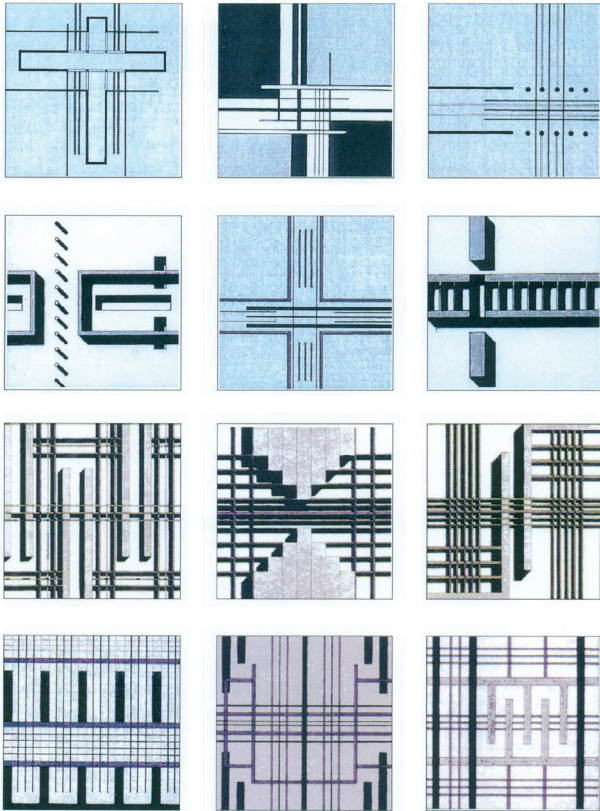


Fig. 8. Compositions of cross figures with point-like, linear, and volumetric elements [Cervellini 2012, p. 176].

petitive cadence, which, with its variability, determines more or less compact or rarefied figures.

Variations of treatment of grids on predefined schemes (fig. 9)

A grid, already in its simplest graphical version – a wire-frame – may be considered a ‘scheme’, that is, a model of associative development between linear systems. In this layout, however, as with every drawing, it already constitutes a complete figure in itself which may make the rigidity of its system evolve into multiple variations. Examples include an outlined organization of the reti-

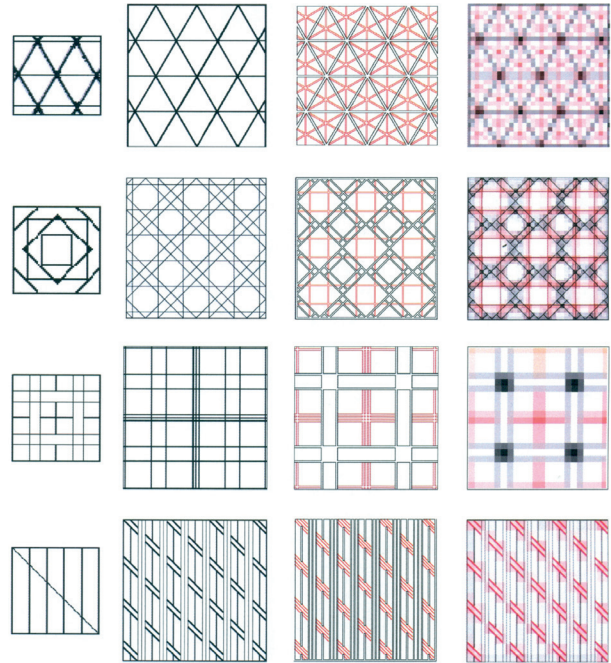


Fig. 9. Variations of treatment of grids on predefined schemes [Cervellini 2012, p. 170].

cle, or development of the weave with colored surface units. In this case, the initial scheme may be assumed as a profound invariant structure used to obtain innumerable ‘themed’ surface structures. In essence, it may be used in analogy with music, like a ‘canon’, that is, a melodic tune that can be coupled with ‘imitations’ and either be added to or superimposed progressively.

Nine square grid (fig. 10)

Applied to a square, an orthogonal reticle of 4 x 4 linear segments, morphologically equal and equidistant, divides the square into nine smaller ones and creates a chessboard [3] of 3 x 3 squares, one of which is the centre of the figure. This chessboard may be considered the prototype for the numerically regulated division of a square. The nine square is a paradigmatic figure for understanding relationships between pros-

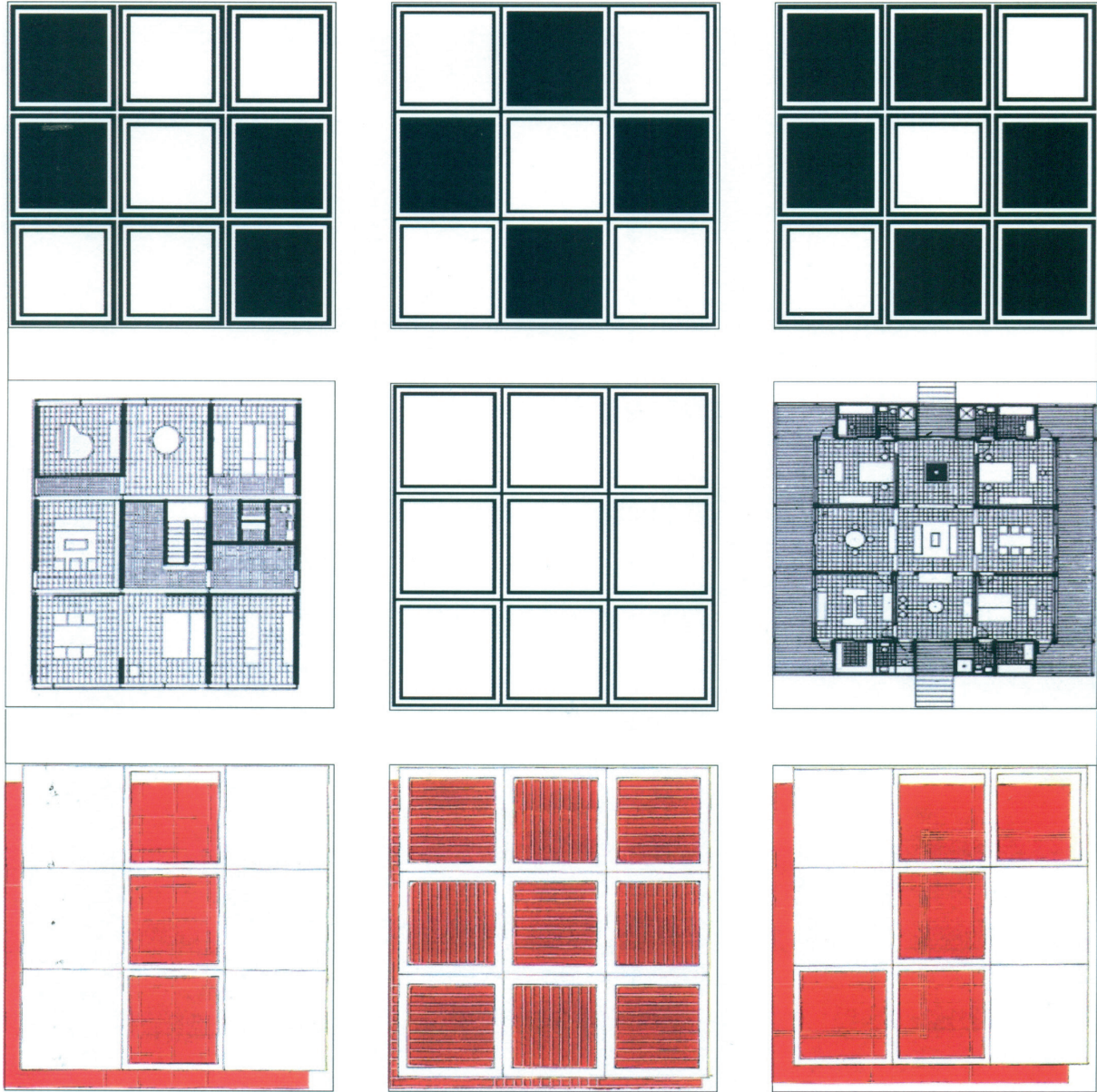


Fig. 10. Nine square grid. On the sides of the central figure, two plans by John Hejduk for the Seven Houses project, Texas, 1980 [Cervellini 2020, p. 21].

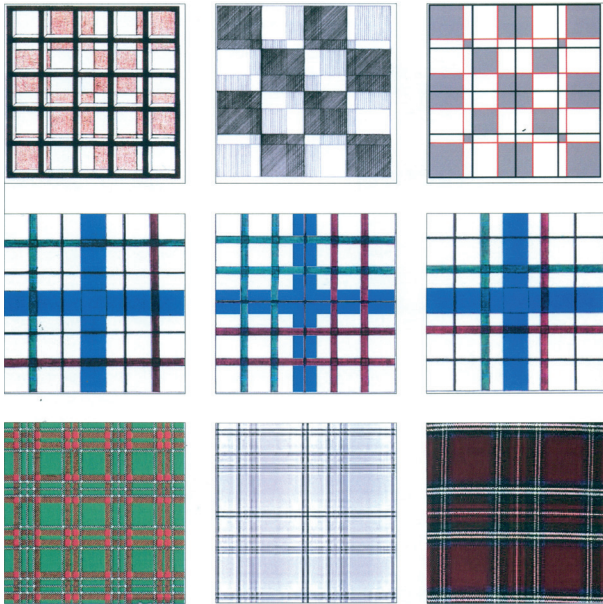


Fig. 11. Even and odd grids: Scottish meshes [Cervellini 2020, p. 21].

ody and the concept of the form through quantitative, congruent, and commensurable organization of the constituent elements. This is also why the figure frequently recurs in the typological schemes of historical architecture, from Byzantine religious buildings to those with a Greek cross plan in the Renaissance, to planimetric models of Palladian villas. In the contemporary era, the nine square grid [Moneo 1980, p. 70] was a specific design problem, often proposed by John Hejduk in the late 1970s while teaching at Cooper Union in New York.

Even and odd grids: Scottish meshes (fig. 11)

A square grid is substantially different if its meshes are even or odd: in one case, a surface module lies at the centre (e.g. the nine square) while in the other case there is a point, the intersection of the axes. What is more, the two modulations are incommensurable. The solution to integrate them through superposition is to divide the grid with the largest step, creating bands to

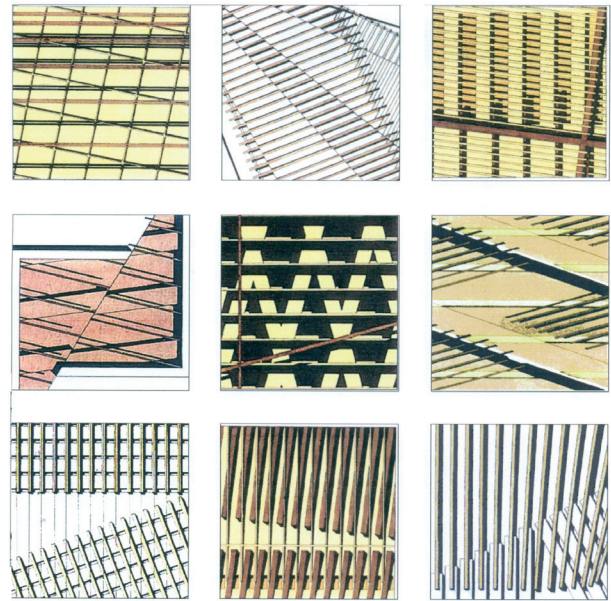


Fig. 12. The formation of complex grids from the deformation and superposition of simple grids [Cervellini 2012, p. 178].

compensate for the difference in measurement. With these or similar divisions, the devices of the so-called 'Scottish mesh' can be formed, in which the reticle consists of the interweaving of lines –and especially bands– of different color and thickness. The grid therefore becomes a woven pattern, with which the multiple 'figural cover' of each square or rectangular surface is made possible. Grids, therefore, are figures that may shape many of our visual experiences if their conformation is the product of a studied 'pattern' of concept and execution.

The formation of complex grids from the deformation and superposition of simple grids (fig. 12)

Complex rhythmic entities can also be obtained not only by crossing the grids with other schemes, but also through deformation or the superposition of other grids. These operations are analogous to 'intensifying' simple rhythmic individuals, with the difference that to be effective, operations with struc-

tures of elements should generally also intervene on their elementary grammatical character.

In detail, the operations tested here are: the sectioning/translation of part of the grid to produce controlled friction in the alignment; the progressive rotation of the elements of one series with respect

to another, which is equivalent to transforming a 'grid' into 'spokes' or solidly rotating one part after it has been sectioned from the whole; and finally, the overlapping of different reticles on different planes (particularly striking are those with acute/obtuse angles).

Notes

[1] According to Wikipedia, Web scraping "is data scraping used for extracting data from websites [it] typically refers to automated processes implemented using a bot or web crawler". Given the essentially speculative and predatory nature of the use of this technique, various methods are used by page authors to prevent automatic visualization.

[2] DIY: Do It Yourself; DIYer: *bricoleur*.

[3] 'Time' is the primary grammatical characteristic of music, poetry, dance, but not of 'fixed' visual forms (it is obviously fully present in 'dynamic' visual forms such as design or cinema). In fixed visual forms, 'time', as in the case of the grid, and movement are agents of the

concept—very important throughout the evolution of the project, but leaving no trace in the final product.

[4] Square grids may generate 'nets' and 'chessboards'. In the former, the reticle is valid on the plane of the figure and the units of the mesh are neutral (empty or transparent), while in the latter, figuratively speaking, the opposite is true. Because each grid can be divided or multiplied to infinity, the 'net' not only extends more easily than the others, but also with a specifically tectonic rather than visual characterization. In contrast to nets, the lines on a 'chessboard' exist as the edges of the areas they delimit. Especially when the colors of the squares alternate, this is one of the more 'coldly expressive' figures in the spatiality of a rhythmically marked plane surface.

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