

Thinking Images. Linguistic Hybridizations in Ideational Design

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The relationship between drawing and language is a theme widely frequented by the theory and critical history of drawing discipline as well as by the disciplines that are adjacent to it or that refer to it: I am thinking of the disciplines of design and those of the artistic sphere, I am thinking of the history of art, representation, graphics, I am thinking of semiotics, philosophy, etc. It is an ancient relationship that, from time to time, reveals similarities, points of contact, overlaps.

It is a reflection that, simplifying the reasoning, tends to bring the elements of the verbal into the visual sphere, interweaving the linguistic-semiotic scaffold with the methods and terms proper to the analysis and formation of the image. It follows that it is a complex process, sometimes not very linear. There are at least two reasons for this: the first is the fact that the visual often consists of expressiveness and aspects not always fully referable to the model of textuality; the second is the vastness of the theoretical, methodological and operational visions of the discipline of representation, which in turn are declined with respect to a wide variety of spheres, purposes, themes, mediums.

In this scenario, therefore, there are implemented forms, functions and 'dimensions' of drawing (drawing of real and thought space, drawing at the territorial, object and communication scales, figurative and abstract drawing) that entail as many possible morphological, syntactic, semantic specificities etc. This implies that, although recognizing a reciprocal tension between the plane of the word and that of the image, the multiple expressions of the theoretical corpus and

operational praxis of representation contribute to tracing a linguistic statute that, in part, maintains inalienable traits of specificity and autonomy.

In this context, it seems useful, therefore, to touch on some of the main topics of design theory and experimentation with reference, in particular, to its relationship with design. Drawing, therefore, as the expression of a formative language that translates themes and processes of the verbal linguistic code onto the visual plane; drawing as conformative medium of ideas and for the project development. On the other hand, these are two contiguous planes. Defining a visual 'alphabet' (morphemes and graphemes), using gaps and adopting signs (paragraphemes) to organize the components of the representation in the form of 'hypotaxis' or 'parataxis', exploiting the semantic value of image elements (icons, indicia and symbols), adopting possible rhetorical strategies, and, of course, selecting methods, techniques and tools of representation are just some of the choices that anyone approaching the language of drawing must define and systematize in a coherent manner.

An idea of drawing, therefore, subtending a project image based on a visual language; an image that, in turn, collaborates with the project *stricto sensu* and orients it, thus attesting to its role as thought-form, or meta-language. In other words, the project configuration, insofar as it is expressed in the production of the image, is naturally affected by the characteristics of the visual language adopted in the representation.

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Moreover, the matter has been known since the Renaissance. Leon Battista Alberti's term "*lineamenta*" enucleates the intimate and substantial relationship between design and project. An indeterminate term that cannot be translated into a single expression (drawing/project) unless its meaning is altered, which, from time to time and in relation to the context of use, takes on important and precise shades of meaning [1].

In fact, drawing, interpreted as the 'textualisation' of the creative language, once the overall idea has been generated, on the one hand, through a succession of representations, allows its various aspects to be fixed and deepened, and on the other, as language itself, determines significant reflections precisely in the way of thinking about the project. Similarly to what happens in written language, in which "the logical-semantic order underlying the writing, the linearity implicit in the relationship between antecedent and consequent, between premise and conclusion make themselves felt in the practice of speaking" [Maldonado 2005, p. 53], in drawing (in particular in the sketch), the necessary and progressive ordering process that underlies its execution, induces a clarification and coordination of the numerous project variables, thus participating in a decisive way in structuring the elaborative process and outlining its contents.

In this regard, straining the reasoning a little, we can identify two emblematic modes of representation that, precisely in expressing different theoretical visions, further explicate the value of drawing in the formation of the project.

I am referring to the systematic and taxonomic modes traceable in certain project representations of a diagrammatic nature and to the intuitive and poetic modes inherent in the heuristic dimension of much of the ideational design. In this sense, I recall, by way of example, Gui Bonsiepe's morphograms, signs that reflect an analytical project methodology largely matured in the theoretical experience of the Hochschule für Gestaltung in Ulm, and the graphic narratives of Alvaro Siza that express, instead, a sensitive, empirical, decidedly personal project research.

In Bonsiepe we note the reticulation of the object of study into meaningful sections, the identification of classes of formal variants, the use of principles, operations and geometric elements as reference parameters for the possible configurations of the individual parts, the adoption of functional and ergonomic criteria to make project choices [2]. An analytical approach that transpires, therefore, in the organization of the image through schematic representations, in the use of orthogonal projections, in the technical and instrumental

choices, in the iconic saturation (the drawn elements detail the real datum); on the whole, an approach that recalls, precisely, the regulatory value proper to writing.

In Siza, the personal use of signs encourages reflection on solutions that come from experience, through a flow of images. The lines free "from the orthopedics of instrumental drawing" [Scolari 1982, p. 82], represents forms from history and memory, precious references to develop ideas. As he himself writes "drawing proceeds from hypotheses, criticism and, consequently, responses to criticism [...]. Only in this way is it possible to reach a refinement, in realization, that goes as far as poetry" [Siza 1998, p. 127-129].

But there are, of course, also other forms of experimentation where representation interprets the relationship with verbal language in a particularly interesting way. I am thinking of the peculiarities of two original theoretical-methodological lines, developed in the 1960s, where the conceptual and sign intersections of verbal language with visual language, on the one hand, reaffirm the role of drawing as a medium for theoretical research on paradigmatic and primary forms, and, on the other, attest to the metaphorical value and communicative power generated by linguistic hybridizations. I refer to the concept of morphemes and the paragraphematic signs used to develop non-figurative languages. As far as the morpheme is concerned, I recall, first of all, the definition proposed in the linguistic sphere: "a formal element that gives appearance and functionality to words and roots, defining their grammatical category and syntactic function" [3]; extending the reflection to a more general level, "the smallest signifying unit of a linguistic complex and therefore the matrix of every conceptual value of a language" [4]. Thus, in the disciplinary field of drawing, the morpheme can be considered a primary element of the representational system and, therefore, a formative element of visual language. This valence of the idea of morpheme takes on different conceptual and expressive nuances from its earliest experimentation.

By way of example, I propose, albeit without any pretension to exhaustiveness, the fundamental theoretical-visual research of Franco Purini and Alberto Seassaro. The first indicates a morpheme as "a primary compositional principle, that is, not divisible into parts and elements [...], a generative cell of a complex form [...]. Thinking about a morpheme is the creative act in which imagination and logic come together at the highest level, resulting in a synthesis that precedes grammar and syntax" [Purini 2014, p. 149]. It is, therefore, a concept that encompasses, in a few primary signs, a vast potential of formal declinations. Points, lines and

surfaces, organized in delimited configurations and carrying different levels of complexity, make up the 72 morphemes that, collected in a synoptic table, seem to describe patterns that can be used in constitutive processes of form.

They are linguistic units functional to productive imagination, understood as a mediation between thought and its sensitive expression. They make possible an imaginative process that, precisely insofar as it is freed from the mimetic approach of design representation, frees us from the preconceptions intrinsic to saturated and definitive images, fosters an understanding of what is beyond the appearance of things, ultimately enhancing the formative action of ideas. In Alberto Seassaro's theoretical reflection, the morpheme idea is developed in the third dimension, through models, and this passage seems to entail a significant conceptual shift. If, in fact, the two-dimensional morpheme is a formal signifying unit at the end of the conformative process of which it is an element of origin, the three-dimensional morpheme is instead both process and outcome at the same time, as it is generated in the formative action itself.

In other words, in Seassaro's vision, morphemes are a sort of middle way between the commonly understood representation (that is abstract projection of spatial concepts) and the concrete realization, regardless of the scale (from that of the object to that of the architecture and the territory), of three-dimensional articulations; their value is, therefore, "to act as forerunners of a more complex and wide-ranging operation –no longer only morphemic but syntagmatic– which, after having availed itself of the 'metalanguage' of which these models are the repositories, leads to a global linguistic operation within the universe of architectural discourse" [5] and, more generally, of three-dimensional elements project. In this vision, morphemes "stimulate and enhance the sense of form and the form-structure relationship even through operations limited in size and in the use of materials" [6].

In this scenario, therefore, it is important to continue reflecting on the relationship between visual language and the content it expresses, in order to verify the relations which, simplifying greatly, may be of dependence or interdependence. If one assumes representation as that which forms project thought, otherwise constrained in an unresolvable nebulousity, then a knot to be unravelled arises: the formulation of a theory of visual language on the basis of which to define the criteria for developing the conformative discourse, which also takes into account different points of observation (functional, formal, structural, etc.).

Parallel to these theoretical researches, equally significant experiments were developed in the radical culture, which, also resorting to the adoption of signs outside the visual language, proposed renewed thinking on drawing and project. In particular, by way of example, I recall the paragraphematic signs [7] introduced by Archizoom in the configuration of No-Stop City (1969). Signs that produce drawings without design, that represent cities without architecture; they are elaborations that outline "an infinite but not definitive world: unlimited but with limits of development; monological but ungovernable; without borders but lacking a global image. [...] A world made up of many worlds; opaque, polluted, where everything merges and expands [...]. An infinite world whose space is filled by the bodies of seven billion people" [Branzi 2011, p. 30].

These are visual metaphors to represent the intuition of the 'change of state' of society, from material to immaterial, and to evoke the explosion of information flows.

These are codes, those used by Archizoom, that go well beyond those normed by common representational practice, and that take on exceptional power to think and critically 'write' the project. The unusual semantic shift in representation, where traditional iconic signs are replaced with non-figurative symbols, organized in modular textures, and texture is the bearer; in fact, of a renewed theoretical dimension that is implemented in a sort of image-manifesto.

In conclusion, in the examples mentioned here, representations appear as living objects that, in relation to the specificities of the cultural spheres, take on different qualities orienting, from time to time, disciplinary visions, proposing new values, criteria and methodologies. This is related to the fact that the image, as language, is intrinsically dynamic and in a biunivocal relationship with the evolutionary context that feeds it and that it itself contributes to modifying.

In this continuous updating, the introduction of generative artificial intelligence applications represents an important push towards profound change.

As far back as the experiments in generative graphics conducted in the early Sixties at the University of Stuttgart by George Ness, a disciple of Max Bense, image processing algorithms introduced the possibility of writing the visual in a non-visual language and formulating possible variants. A change in image processing is proposed that is somewhat prodromal to the processes of today's generative artificial intelligence. In fact, a radically new working perspective is realized; to produce a visual work does not mean to realize it, that is to elaborate a particular image, but it means to

think about it, to construct it in one's head before describing, in an appropriate way, to the machine what one wishes to be done. Thinking an image means, therefore, thinking a possibility of realization. A process analogous, in fact, to that which takes place with generative artificial intelligence. This is an area in which, among other things, the linguistic component, related to the selection of the vocabulary and syntax to be used in the programming and utilization phase, is fundamental, since the text-to-image method exploits a neural network that learns through word-image association, that is, it relies on textual input to generate unlimited possibilities of representations. It is therefore important to define various parameters that can intervene in the training of the generative model and contribute determining its outcomes, that is, to extend, diversify but also orientate the representational potential. The more diversity is included in the textual and

visual datasets provided to artificial intelligences, the lower is the risk of dominant thinking, cultural bias etc.

We are therefore in an area where disciplinary languages, which are closely interrelated, not only have the task of forming useful representations, but also the responsibility of developing ethical, democratic and transcultural images.

In general, it can be deduced that the centrality acknowledged in the 20th century to visual representation in philosophical speculation and mass-media production, as well as, of course, in research, design and development, is now, in the third millennium, evolving further towards experimentation and scenarios that are still unforeseeable, further attesting to what has been proposed by certain anthropological theories according to which the distinguishing feature of man with respect to other species consists, even before language, in the capacity to represent [Hacking 1983].

Notes

[1] For more details see Bistagnino 2010, p. 25.

[2] For further information see Bonsiepe 1975, pp. 174-197.

[3] "The m. can be isolated, such as prepositions and conjunctions, or joined to the root, such as affixes, desinenes, qualitative or quantitative alternations. In the terminology of US linguistics, morpheme is any utterance segment endowed with meaning" (trans. by the author): <<https://www.treccani.it/enciclopedia/morfema/>> (accessed 2025, June 1).

[4] Description taken from *I morfemi di Seassaro*, text by Gillo Dorfles for the poster of the exhibition on Morphemes by Alberto Seassaro, Modern Art Agency, Naples, from 24 January 1968. Available at <<https://designphilology.polimi.it/percorsi/39?id=655>> (accessed 2025, June 23).

[5] Text by Gillo Dorfles taken from the poster of the exhibition on Morphemes by Alberto Seassaro, see note 4.

[6] Text by Gillo Dorfles taken from the poster of the exhibition on Morphemes by Alberto Seassaro, see note 4.

[7] "We call paragraphemic signs (an expression coined by Arrigo Castellani [...]) all the features and graphic devices that combine with one or more letters of the alphabet, or mark their shape, to express a distinctive or functional value. Paragraph signs complement the meaning of graphemes but, unlike the latter, have no correspondence in phonetic units of the language. They serve to provide instructions to the reader on a syntactic and textual level, and their origin and diffusion is attributed to the need to facilitate reading and copying operations" (trans. by the author): <[https://www.treccani.it/enciclopedia/segni-paragrafematici_\(Enciclopedia-dell'italiano\)/](https://www.treccani.it/enciclopedia/segni-paragrafematici_(Enciclopedia-dell'italiano)/>)> (accessed 2025, June 1).

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