Drawing is therefore the Idea: it is the True Form of the Thing

Franco Cervellini

I have accepted the proposal for a reflection on manual drawing, favouring its ‘inventive’ aspect, both in its incisive and more assembly ways. I still do not know tools of structured interaction between humans and machines – such as new neuronal interfaces, etc. –, and consequently, I consider the expression ‘digital drawing’ an oxymoron. In Italian, drawing is a polysemic word, together nomen actionis, nomen acti and obiectum, as it simultaneously designates both the conception, the executive practice, and finally the outcome of the design. These designations, however, constitute the unfolding of an ‘operational’ thought, which develops ‘around things’ to form images of them. A bildaerische Denken. However, an essential distinction is needed in the relationship between thought, image and figure. In my opinion, a mental image similar to a drawing is not given. I fully share Garroni’s opinion that in our experience, ‘sensations’, ‘perceptions’ and ‘imaginations’ are formed as ‘internal images’, dynamic, not yet iconic, around which thought clusters to stimulate the expression of a first figure. These figures/drawings constitute an analytical basis for the project as they identify the phases of its formative phenomenology. And to this end, overcoming their generic denomination (sketches), I tried to identify inventively typological characteristics in four classes of inventive drawings: ‘image drawings’ or those that allow the reordering of the constituent elements of the image in the principle of the structure of its form; ‘assemblies drawings’, which characterize the development of the work, or the products of a way of doing that he invents by doing and undoing; and finally ‘layout drawings’, specific to the operational writing of the project. Terminal acts of that rational research on it, for the punctual discovery of its grammatical and syntactic ‘mechanism’.

Keywords: digital representation, inventive drawing, manual drawing, thinking/drawing.

1. Manual Drawing, Digital Representation

I have accepted the proposal for a reflection on the current meaning of manual drawing, privileging the aspect aimed at the ‘inventive phase of the visual form’, both in its incisive and assembly ways, and excluding the descriptive and didactic aspects of drawing.

I am not well acquainted with tools of interaction between humans and machines such as neuronal interfaces (see Neuralink) or with experimental devices to improve memory, and, following my arguments of the next pages, I consider the expression ‘digital drawing’ contradictory in itself. In Italian, drawing is a polysemic word. In the singular form, it is simultaneously nomen actionis, nomen acti and obiectum, as it simultaneously designates both the conception and the executive practice of drawing, and finally their outcome. And these designations are not distinct moments but rather an unfolding of that so-called imaginative way of thinking.

I. Nancy 2009. Nancy’s text continues: “Or more exactly, it is the gesture that proceeds from the desire to show this form, and to trace and show it.” Nor, however, tracing to show an already acquired form, tracing here means finding, and to find, to seek — or let it be sought and found — by a form to come, which must or may come in the drawing. In an earlier passage Nancy had also written, “The word drawing participates in a semantic regime where act and power (its potential) are mixed, where the sense of the act, of the given or becoming condition cannot be entirely separated from the sense of gesture, of movement, of becoming.” The translations from French are the work of the undersigned.

Il disegno è l’idea dunque: è la forma vera della cosa

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Ho raccolto la proposta di una riflessione sul disegno manuale privilegiando l’aspetto “invenzionale”, sia nei suoi modi incisivi, sia in quelli più di montaggio. Non conosco ancora strumenti di strutturata interazione tra esseri umani e macchine – quali le nuove interfacce neuronalni, ecc. – e di riflesso, considero l’espressione “disegno digitale” un osimonio. In italiano, disegno è parola polisemica, insieme nomen actionis, nomen acti et obiectum, in quanto designa contemporaneamente sia la concezione, sia la pratica esecutiva, sia infine l’esito del disegnare. Tali designazioni però costituiscono il disegnare di un pensiero “operazionale”, che si sviluppa cioè “intorno alle cose”, per formare immagini delle stesse. Un bildaerisches Denken. Tuttavia è necessaria una distinzione essenziale del rapporto tra “pensiero”, “immagine” e “figura”. Secondo me non è data “un’immagine mentale” assimilabile a un disegno. Condivido pienamente l’opinione di Garroni che nella nostra esperienza, si formino “sensazioni”, “percezioni” e “immaginazioni”, cioè “immagini interne”, dinamiche, non ancora iconiche intorno alle quali il pensiero si raggruppa fino a stimolare l’espressione di una prima figura. Tali figure/disegni costituiscono una base analitica del progetto in quanto identificano le fasi della sua fenomenologia formativa. E a tal fine, superando la loro denominazione generica (schizzi), ho provato ad identificare delle caratteristiche inventivamente tipiche in quattro classi di disegni inventivi, cioè: i “disegni di immagine” ovvero quelli iniziali, tracciati quasi come segni unici, nei quali cortocircuita l’ispirazione profonda e la prima razionalità dell’idea; i “disegni di schema” ovvero quelli che consentono di riordinare gli elementi costitutivi dell’immagine in un principio di struttura della sua forma; i “disegni di montaggio”, cioè quelli che caratterizzano il divenire dell’opera, ovvero i prodotti di un fare che inventa facendo e disfacendo e infine i “disegni di tracciato”, cioè quelli specifici della scrittura operativa del progetto. Atti terminali di quella ricerca razionale su di esso, per la puntuale, scoperta del suo “meccanismo” grammaticale e sintattico.

Parole chiave: disegno inventivo, disegno manuale, pensiero/disegno, rappresentazione digitale.

1. Disegno manuale, rappresentazione digitale

Ho raccolto la proposta di una riflessione sul senso attuale del disegno manuale, privilegiando l’aspetto dello stile attualmente rivolto alla “fase inventiva del disegno visivo”, sia nei suoi modi incisivi, sia in quelli di montaggio, escludendo invece gli aspetti del disegno descrittivo e didascalico. Non conosco bene strumenti di interazione tra esseri umani e macchine quali le interfacce neuronalni (come, ad esempio, Neuralink) e neanche conosco esperimenti per migliorare la memoria e, anche per quello che dirò adesso, considero l’espressione “disegno digitale” in sé contradittoria. “In italiano, infatti, disegno, è parola polisemica. Essa, al singolare, è contemporaneamente nomen actionis, nomen acti et obiectum, in quanto designa contemporaneamente sia la concezione, sia la pratica esecutiva del disegnare, sia infine il loro esito. E tali designazioni non sono momenti distinti ma piuttosto un disegnare di quel modo del pensiero...
which develops around things to form images of them”. A bildnerische Denken (Klee 1956).

“Manual drawing for inventive purposes is therefore always a participant in its genesis and purpose and for my part, any translation, synonym or paraphrase that reduces the essential unity of its conception and its implementation is not acceptable.”

In disregard of this inseparability, here we find the contradictory nature of the coupling of the noun ‘drawing’ and the adjective ‘digital’.

Moreover, remembering some aspects of manual drawing clearly shows how it differs from the digital representation.

“While drawing, moving and marking the sheet, the hand generated its object as a model of space, uneven as it is, thickness and underlining the lines on some more attractive points and then identifying, with the eye and the hand, the various places antithetical to that: centre and edges, foregrounds and backgrounds, interiors and exteriors, etc. Furthermore, the hand that draws (or used to) was almost always in tension, in search of its sign, in


Figure 2 Elaboration of the generation of a three-dimensional model starting from two-dimensional images of Lissitzky’s Proser Architectural Space Design Laboratory (Professors Franco Cervellini and Daniele Rossi).

Figure 3 Alessandro Anselmi, preliminary studies for a project for the administrative centre of the Aude Department, Carcassonne, 1989, copia. © Private collection.


2. Quotations are taken as summarized by Cervellini 2013.


4. DOI: https://doi.org/10.15168/xxv6011-12.2527

5. cosiddetto immaginifico, che si sviluppa cioè intorno alle cose per formare immagini delle stesse. Un bildnerische Denken, per citare Klee (Klee 1956).

«Il disegno manuale a fini inventivi, è quindi sempre partecipe della sua genesi e del suo fine, e da parte mia non è accettabile qualsiasi traduzione, sinonimia o parafasi che riduca l’essenziale unitarietà della sua concezione e della sua messa in opera» 2. Nel misconoscimento di tale inscindibilità è riscontrabile la contraddittorietà dell’accoppiamento del sostantivo “disegno” e dell’aggettivo “digitale”. Peraltrò, ricordare alcuni aspetti del disegno manuale evidenzia bene come esso si differen-

zica dalla rappresentazione digitale. «Nel disegno, nel muoversi e segnare il foglio, la mano generava il suo oggetto come un modello dello spazio, disomogeneo come è quel-

lo, addensando e rimarcando i tratti su alcuni punti più attraenti e individuando poi, con lo sguardo e la mano, i vari luoghi aniteticici di quello: il centro e i margini, i primi piani e gli sfondi, gli interni e gli esterni ecc. Inoltre, la mano che disegnava(va) era quasi sempre in ten-

zione, alla ricerca del proprio segno, ovvero in una condizione conflittuale fra la liberazione del gesto e l’istanza di disciplinarlo al rigore
a conflictual condition between the liberation of the gesture and the request to discipline it with methodological rigour. In conclusion, drawing always opens (or used to) the individual field of signicity and self-awareness of spatiality. The ductus was a sensitive trace both of the discovery of one’s gestural difference and of a very personal spacing. A calligraphic and choreographic experience at the same time, closely related to one’s corporeality. Instead, in the tight digital procedurality it is difficult to find an awareness of this. For drawing, digital has marked an irreversible transition from calligraphy to typography, and a detachment from the gestural experience related to one’s corporeality. In fact, digital timing follows a dynamism stranger to that of human experience. What is formed in the video today to later become evanescent and magical reappear, is more like a sum of dissolved perceptions not easily referable to what we have been accustomed to perceive and apprehend. Also in this respect, I tend to content the expression ‘digital drawing’.  

2. Thought, Image, and Figure and Drawing  
Having said that, it is necessary to move back to the centre of the matter, the relationship between ‘thought’ and ‘drawing’, and face the fundamental clarification-distinction between ‘thought’, ‘image and figure’, and ‘drawing’. To summarize, we can use two basic questions that, sooner or later, are inevitable to ask: How are visual forms generated? Is there a representation of thought that dramatization that it takes shape and materializes in a figure as analogical representation. “The inventive drawing of an architectural or design object originates from the suggestions mentioned above (perhaps more particularly about the place, the programme or the theme) when it takes over an ‘interior staging’ of a play of three-dimensional symbols and it is through that dramatization that it takes shape and materializes in a figure-drawing. The world of three-dimensional objects is irrefutable to words and the thought that concerns them must conform to them with a necessarily homogeneous conceptualization – or rather with a ‘perceptualization’ – or it is not fully possible to develop it. The tracing of the various signs, then, is not a simple transcription of the original thought: the hand shapes that level of thought through them, or rather, it still thinks by drawing because the presumed transcription is not alien to the evolving development of that thought, which at the same time is not fully given except in the ways of its writing” (Purini 2013). Therefore, that original thought, no matter how solicited, also needs a passage of adaptation of its three-dimensional fantasies through two-dimensional codifications that is, of a thought of a drawing. Mind you, the thought of a design is not a

3. Inventive Drawing
I would now like to try to deepen its subsequent development in a drawing, or in the specific graphic elaboration different from the iconic instruments, overcoming even the generality of the term ‘figure’ as an analogical representation.

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Thoughts/drawings are therefore the creators of the various artefacts but also the trainers and their best analysts, as they identify the possible new formative phanomenologies. And to open up more acute possibilities of intelligence in their regard, overcoming their generic denomination, they tried to identify inventively typical characteristics in four classes of inventive drawings, assigning to each the most appropriate denomination to their ‘manipulative’ characteristic, that is ‘drawings’, ‘perceptions’, ‘imagination’, ‘innovation’, ‘immagini interna’ continue, costitutivamente dinamiche, non ancora fissabili in un icona materiale (Velotti 2013), ma è intorno ad esse che il pensiero si ‘raggruma’ con sempre maggiore intensità fino a stimolarci ad una prima espressione iconica: una ‘figura’. È dunque quella sorta di ‘tratto’ che, ascoltando ci possa chiamare la forma primigenia del ‘pensiero/disegno’, genetico del processo dell’architetture, del design e delle altre arti visive.

3. Disegno inventivo

Vorrei ora cercare di approfondire il suo sviluppo successivo in un disegno, ovvero nell’elaborato grafico specifico diverso dagli strumenti iconici, superando anche la generalità del termine ‘figura’ come rappresentazione analoga. ‘Il disegno inventivo di un oggetto architettonico o di design origina dalle suggestioni di cui si è detto (magari più in particolare circa il luogo, il programma o il tema), quando si smenta in una “messa in scena interna” di una recita di simboli tridimensionali ed è attraverso quella drammatizzazione che esso prende corpo e si materializza in una figura-disegno. Il mondo degli oggetti tridimensionali è irriducibile alla parola e il pensiero che li riguarda deve conformarsi ad essi con una concettualizzazione – o meglio con una “percettualizzazione” – che mira a una “figurazione” (velotti 2013), ma è intorno a esse che merita una maggiore estensione. Ei pensieri/disegni sono quindi gli ideatori del ‘montatore’, che, proprio nel’incorporare il suo pensiero in quell’oggetto, poiché così fa attivare la formazione complessiva. Ricordando con Leroi-Gourhan le basi della geometria, spesso e proprio in quanto bimane, poiché così favorisce una maggiore estensione, che meritebbe una maggiore estensione, più diretta anche se cognitiva-trasformativa, ma anche consonante. La manualità del ‘montatore’ è dotata di sensibilità alla gradazione di potenza e di tempo, e quindi, è foriera di equilibrio, ovvero sinteticamente di capacità di controllo. La manualità del ‘montatore’ con la sua capacità continua di usi e di aggiustaggi di una molteplicità di fattori, attrezzi e tecniche – e anche quella che più richiesta la manualità dell’incisore, che altro che un disegnatore molto affezionato al trattino”. Pensa e disegna.
Franco Cervellini – Drawing is therefore the Idea: it is the True Form of the Thing!

'schematic drawings', 'assembly drawings' and 'layout drawings'. My goal, therefore, was by no means taxonomic in nature, it cannot close the circle of the evolution of thoughts/drawings by recognizing their distinct visual and tactile authenticity during the various ‘project’ phases. With an important scheme, though, the conditions correspond to a determined stage of the formation process – the first two, for example, to the initial stages and the last two, simultaneously complementary and opposite to the terminal ones – they do not correspond to distinct phases of a linear succession. Each drawing is an identifiable elaborate plan which can be conceptually related to one of the other classes. E.g., if the ‘image drawing’ according to classical rhetoric is the inventio, that is the choice of figurative themes represented, one of the next class, the ‘scheme’, can represent the dispositio, that is the order with which they are exposed.

4. Image Drawings

‘Image drawings’ are often the initial ones, traced synthetically, almost as unique signs, marked with a single gesture, in which the deep inspiration, the ‘capture’ and rational explanation of the idea (eidos) which moved it seem to instantly start circuit. Drawings that are often considered ‘unrepeatable’. For me, the most interesting ‘image drawings’ are the most ‘fleeting’ ones, that is, more susceptible to modification; often the more precise are the most ‘fleeting’, that is, more susceptible to modification; often the more precise are the most ‘fleeting’, that is more susceptible to some imprevedible evolution; typically visive except in the short time in which they are executed. Perhaps this is their most characteristic “manipulator”, or: the ‘disegni di immagine’, the ‘disegni di schema’, the ‘disegni di tracciato’. The mio obiettivo, pertanto, non era affatto di natura tassonomica, tendeva per così dire a chiudere il cerchio dell’evoluzione dei pensieri/ disegni riconoscendo una loro distinta “autenticità visiva e tattile” nel corso delle varie manipolazioni di “progetto”.

With a precise importance; and for on tali classi corrispondono ad un determinato stadio del processo di formazione – le prime due, ad esempio, agli stadi iniziiali e le ultime due, contemporaneamente complementari ed opposte, a quei terminali – esse non corrispondono precisamente a fasi distinte di una successione lineare. Ogni disegno è un piano identificabile di elaborazione che può essere concettualmente relazionato in particolare a uno delle altre classi. Ad esempio, se il “disegno di immagine” rappresenta la discretiva delle singole fasi e peculiarità delle loro differenziate idee; gli “schemi” possono corrispondere efficacemente ad una pratica inventiva a programma, secondo una logica generativa trasformazionale.

5. Schematic Drawings

‘Schematic drawings’ are those that allow the reordering of the constituent elements of the image in an internal principle of organization in which the structure of its form resides. In a ‘scheme’, it should also be possible to observe the logical process through which it developed. If the image design is, rhetorically, the invention, or the choice of topics, the ‘scheme’ is the design that concerns the dispositio, that is the order in which the various architectural themes are exposed. ‘Schemes’ are replaceable to allow two typical heuristic drawing operations: their variation and their classification. Classifying involves a simultaneous graphic deployment/composition of identities, similarities and differences between different ‘schemes’; while varying them requires developing the combinatorial possibilities of the basic figures and their juxtapositions to the maximum. In addition to this dynamic-combinatorial procedure, it is also possible to use another schematic method that we could define as metalinguistic. Through it, a drawing is produced from a formalized assumption in a ‘shorthand’ figure that serves as a basic outline of other design developments. Such use of ‘schemes’ can effectively correspond to a programme-based inventive practice, according to a transformational generative logic.

5. Assembly Drawings

‘Assembly drawings’ are those that I believe are the most important. They are the drawings of that ‘patient research’ around the project, due to its progressive, timely discovery. Only through them is it possible to acquire a complete understanding of the mechanism by which the ‘pieces of the thing’ of architecture can be held together, conceptually and physically joining or disjoining to obtain a functional structure, in all senses. Such drawings do not always leave traces: dismembered on several sheets, they do not survive except in the short time in which they are executed. Perhaps this is their most characteristic aspect, that is, what work in progress, the result of a doing that invents by doing and undoing. In such drawings, artists do not work on the ‘whole’, which is an archipelago of fragments: they are the cornerstone of the foundation of an ‘archipelago’ which must have already manifested itself. The assembly drawing, an artisanal practice, gradually proceeds to the definition of its object, not so much using corrections, but overlapping rewriting, as in much technical literature. The rewriting takes us back to the classification as the more important. They are the drawings of that ‘patient research’ around the project, due to its progressive, timely discovery. Only through them is it possible to acquire a complete understanding of the mechanism by which the ‘pieces of the thing’ of architecture can be held together, conceptually and physically joining or disjoining to obtain a functional structure, in all senses. Such drawings do not always leave traces: dismembered on several sheets, they do not survive except in the short time in which they are executed. Perhaps this is their most characteristic aspect, that is, what work in progress, the result of a doing that invents by doing and undoing. In such drawings, artists do not work on the ‘whole’, which is an archipelago of fragments: they are the cornerstone of the foundation of an ‘archipelago’ which must have already manifested itself. The assembly drawing, an artisanal practice, gradually proceeds to the definition of its object, not so much using corrections, but overlapping rewriting, as in much technical literature. The rewriting takes us back to the classification as
in the schemes, but this time with instant resolve, with an almost gestural selection. The exercise of partial or total polishing of a typical assembly drawing is (was) a rationally ‘visionary’ method of construction of its architectural or design object. Polishing had to be taught and became a careful balancing of the signs, calibrating the details in the general and fixing the collimations and correspondences. Taken together, the actions of these drawings are substantially simple and frequently applied in antithetical sequences and relationships: reduce and extend, and simplify and decompose/recompose the multiple configurations not yet fully defined to condense them according to order in the assembly and, if necessary, also withdraw one or more steps. Necessarily, therefore, the main directive action of this level of drawing is (re)scaling. Plotting now involves a definitive metric choice of what could previously have remained in the approximation. And the ‘legitimating’ nature of this definition cannot be interpreted as a radical change in the register of the design. Architectural signs, and those of well thought-out design, are born measured/materialized and if the general metric system is not already presented as a function of the fragmented in the schemes, but this time with instant resolve, with an almost gestural selection. The exercise of partial or total polishing of a typical assembly drawing is (was) a rationally ‘visionary’ method of construction of its architectural or design object. Polishing had to be taught and became a careful balancing of the signs, calibrating the details in the general and fixing the collimations and correspondences. Taken together, the actions of these drawings are substantially simple and frequently applied in antithetical sequences and relationships: reduce and extend, and simplify and decompose/recompose the multiple configurations not yet fully defined to condense them according to order in the assembly and, if necessary, also withdraw one or more steps. Necessarily, therefore, the main directive action of this level of drawing is (re)scaling. Plotting now involves a definitive metric choice of what could previously have remained in the approximation. And the ‘legitimating’ nature of this definition cannot be interpreted as a radical change in the register of the design. Architectural signs, and those of well thought-out design, are born measured/materialized and if the general metric system is not already presented as a function of the fragmented
ent in its logical and figural systematic among the available drawings, even if graphically approximated, then it is not coherently found even through ‘orthopaedic’ surgery. Conversely, if the re-scaling intervenes too hastily in still provisional conformations, one runs the risk of not being able to draw an authentic architectural qualification, remaining entangled in the geometric-schematic abstraction. Which, incidentally, is what happens very often due to the intrinsic overdetermination used by some digital software. Some of the most frequent problems of re-scaling are posed by the need to metrically modify elements already present which, for this circumstance, can modify the relations with the whole. However, it is especially in these cases that the inventive skill of tracing must act, that is, knowing how to exploit the multifaceted and sufficiently elastic character of architectural things, so to speak. The end of the tracing is usually followed by the dimensioning; doing it carefully, however, is important more morphologically than technically to verify qualities such as the quantitative values, effective for a plastic-chromatic outcome of the micromorphological joints – small recesses, protrusions, etc. The layout drawing, therefore, is the moment of the refinement of the project, of the distillation of the stickiness still present up to that fluidity, by which everything seems to be placed in the right place and the right measure.

Of all the possibilities offered by the previous drawings and their traces, not all can be pursued to completion. At the level of layout, the drawing must affirm the definitive distinctions, and resolve the dualities, the uncertainties. At the end of a tiring process, tracking can reveal unexpected difficulties and also imply a radical rethinking. When this is the case, you can only start over. The layout drawing, therefore, is the final foundation of the regularity of the project, of its verification and technical legitimation also as a constructive programme. This kind of drawing represents the last interlocutory act between the author and his product. Afterwards, they become a means of communication, even if their full message will belong only to those who know the tiring process of gestation.

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Figure 14
Franco Cervellini – Drawing is therefore the Idea: it is the True Form of the Thing

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