The Amnesia of Formal Composition

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Abstract

If drawing has always been a tool for expressing the ideational design process, with a strenuous search for synthesis aimed at acce-lerating the necessary times facilitated by digital introduction, the integrated elaboration capacity of the idea has increasingly been lost. This loss has given rise to partially sterile hypotheses devoid of that world of forms and the search for form, which constitute true architectural and spatial projects. Aldo Rossi's drawings come to mind, where a coffee maker could become, as we would say today, an essential object in the domestic ritual, a house, but also a tower, a viewpoint, or even part of what he himself called 'domestic theater', where pure forms could combine to create, with dimensions not coinciding with reality, simple objects of common use that could become significant elements of interior spaces. We have thus reduced ourselves to no longer knowing how to compose but to seek sophisticated elaborations of volumes that fall into a love for complication rather than a simplification that contemporary reality requires. But if the digital world can 'bend' to ideative will, why can't we integrate it instead of replacing it with what is effectively the project, understood as a process of investigation?

Keywords: memory, formal composition, ritual, digital composition

In composition, it is not possible to speak of rules. Composition is a complex system of functional, symbolic, representative, and productive variables. One could rather speak of choices, of ideas-instrument halfway between the conceptual and the operative, between theory and practice. So, what is an idea then? Where does it come from? How does it become a creative process? Therefore, how does it become a project?

An idea is born within us, supported by stimuli that come from the social substrate to which we belong, from the cultural world of which we are a part, and from all those exogenous colonizations that we let ourselves be emotionally moved by while living. If with the digital advent, the expressive tool of the creative and design process has changed in the relentless pursuit of an acceleration of the necessary times, drawing, in its succession of sketchy,

hinted, and researched attempts, has inevitably ceased to be an actor in that design process of elaboration, synthesis, and composition of forms. It has stopped being a tool for research and investigation. Drawing has thus ceased to be the expression of that world of forms capable of defining space because it is no longer a tool for understanding the world, for the stylization of reality that allowed the discovery of geometries, functionality, and therefore the understanding of forms and their nature. Architecture, in drawing, its fundamental expressive tool, had discovered ways, types, and reasons through the use of very few formal matrices, capable of defining infinite combinations and possibilities that have filled the imagination of many. Drawing is, therefore, in its nature as a cognitive tool, an instrument of education, of discipline of spaces; it is, in fact, the tool with which man is able

Fig. 1. A. Rossi, 1984. The Return from School, Milan [Aldo Rossi Heirs, courtesy of the Aldo Rossi Foundation].

to practically bring his thoughts back to the earth. Thus, the study of the morphological aspect of what the world composes becomes inevitable because one cannot think of knowing how to build without first knowing how to break down and rebuild using the baggage of forms that belong to our cultural and social layer.

We then find the words of Aldo Rossi arranged here to bring the mind back to what formal education is, to what a world of architectures made up of parts and memory is. "Perhaps the observation of things has been my most important formal education; then observation turned into a memory of these things. Now it seems to me that I see them all arranged like tools in a nice row; lined up like in a herbarium, in a list, in a dictionary. But this list between imagination and memory is not neutral; it always returns to some objects and also constitutes their deformation or somehow evolution" [Rossi 2009, p. 44].

The forms are few, they do not belong to the field of invention but to that of memory, to that substrate that is already part of us shortly after birth when we learned, with small prisms in hand, to fit them correctly into the hole that welcomes their form. This investigation thus begins with the observation of things, which then leads to their idealization, almost through a 'Platonizing' process in which the forms become enduring and become forms belonging to our system of knowledge. These morphologies, coming from memory, belong to that cultural substrate from which each of us comes and remain, despite subsequent contaminations, representative in their matrix capacity, of that system of forms known during childhood.

The design of pure forms is thus an iconography capable of uniting the landscape of imagination with that of the constructed object, generating a project and an iconology that, on different scales, belong to the world of the object, the building, and the city, as layers. The forms of the smallest objects were the same, capable of creating, with different dimensions, more complex geometries, more impactful volumes, furnishing elements, or actual architectures.

In the imagined and drawn universe by Aldo Rossi, his sketches come to mind, where a coffee pot could become, as we would say today, a must-have object for domestic rituals, a house, but also a tower, a balcony, or even part of what he himself defined as 'the domestic theater' where pure forms knew how to combine to create, with dimensions not coinciding with reality, simple
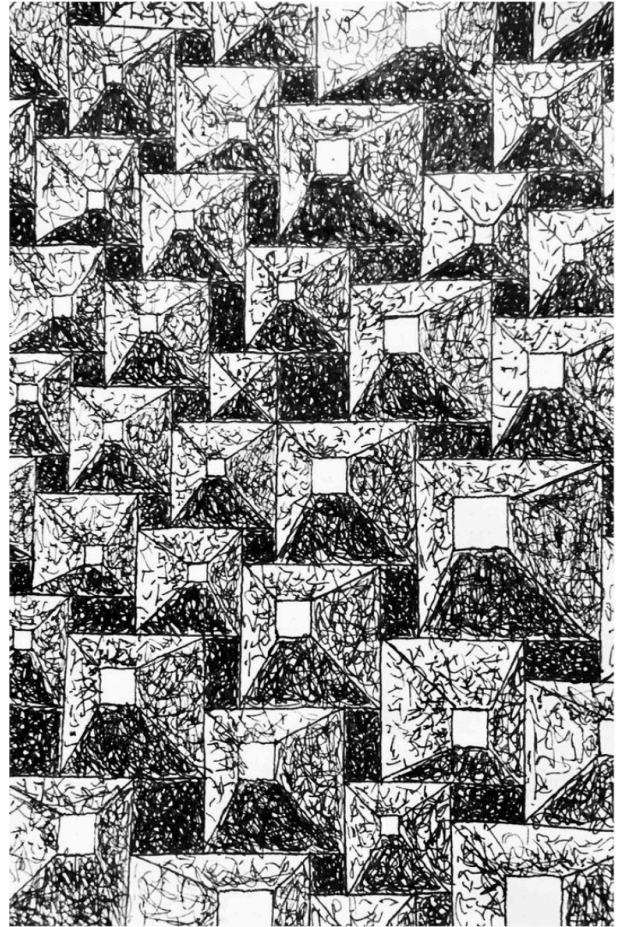

Fig. 2. G. Di Costanzo, 2019. Repetition Creates Composition, Naples.

objects of common use, large furnishing elements of interior spaces, macro-objects as inhabited space on one hand, and objects as micro-architectures and memory condensers on the other.

The forms belonging to memory are thus heavy materials, capable of layering, aggregating, and consolidating into what then becomes the expressive language of the individual, the idea of the individual, capable, however, of becoming a space inhabited by the multitude, an object touched by the multitude, an instrument used by many.

Here is the drawing of the coffee pot house, of the object belonging to the domestic space that Rossi was able to transform into a container of the domestic space composed of pure forms that, if defined on a micro-scale, can become designed objects designed to be held in hand and, if summed on a large scale, can become inhabitable spaces, attributable to elementary known architectural typologies, such as the tall tower, which is also the 'Conica' [1] coffee pot or the large hut in the case of the cone - kettle [2] designed for Alessi (fig. 1).

The drawing thus becomes an expression of an emergence of memories, where individual fragments come together and resurface, generating different compositions, freeing architecture from the obligation of functionality because functions vary over time. Instead, it transforms it into a necessary tool for constructing a place, generated through elements that, although arranged with a different order and dimension, already belong to the place to be built.

Repetition thus becomes composition; repetition (fig. 2) with a slight variation becomes an idea, sometimes suggested, sometimes rediscovered in each of our cultural baggage. "The displacement of an element from one composition to another always presents us with another project that we would like to do, but it is a memory of something else" [Rossi 2009, p. 44].

Thus, memory becomes capable of reconnecting the parts of the design process to its matrix, to its original form, breaking down the project and, therefore, the compositional and synthesis processes to their constituent elements. We discover that these elements belong to what we already know, to those forms that are inherent within us.

So formal composition, so formal culture, is indelibly linked to the only expressive tool capable of uncovering them, finding them, studying them, and summarizing them, rediscovering them, and subtracting them.
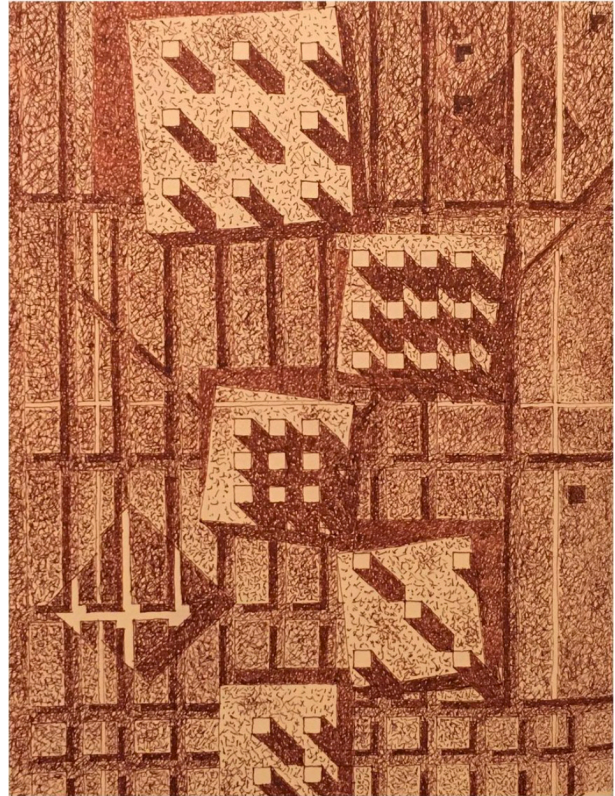

Fig. 3. G. Di Costanzo, 2019. Play and Metamorphosis of Forms, Naples.

The words of Aldo Rossi regarding his 'formal education' remain distant echoes, almost an oxymoron of the new architecture with which today's society is grappling, articulated in hypotheses lacking that compositional research and thus remaining partially sterile. They are more distant than ever from that world of forms and the search for form that constitutes true architectural and spatial design. Has formal investigation disappeared? Is there truly no formal education left? Yet, in his writings, Aldo Rossi suggested almost the inevitability of such knowledge, as if, being an aspect of the most ancestral culture, it was impossible not to confront it in compositional and design choices. As if, without any other possibility, life approaches such a study, as if memory could not help but bind its threads to forms, as if inevitably this vocabulary became that of memory, and, almost like other techniques, it becomes necessary to transmit its formal culture, unlinking its thought and experience from any program, trend, or school that aims to continue its existence [Rossi 2009, p. 119].

For Focillon as well, forms led their own lives: "Form, in the play of metamorphoses, perpetually moves from its necessity toward its freedom" [Focillon 1990, p. 184] (fig. 3).

And yet, certain new architectures seem almost more articulated in the pursuit of an 'amorphous' expressive system, giving rise to a formless architecture, defined in its organic nature, as if we were forgetting that the natural world itself, understood through the synthesis of its forms, has taught us to occupy space with the sum of geometric shapes.

Hand-drawn sketches, whether rough or precise, regulated by drawing tools, are no longer capable of being mechanisms for exploring the world through memory. They are no longer an analysis of the complex system of life around us, simplifiable into matrices and forms. Instead, they have been replaced by innovative visualization systems that, as if the world had become malleable clay, have eliminated the aspect of geometric formality and, with it, the composition of volumes.

Have we truly preferred to forget the composition of forms?

When did we forget that drawing is the only possible expression of composition?

When did we forget what the investigation of forms entails?

When did we lose the memory of what has been known since ancient times?

Architecture regulated by variable parameters that, like nodes, irregularly move its profile, has reduced us to no longer knowing how to compose, to seek sophisticated elaborations of volumes that fall into a love for complication rather than a simplification of forms that contemporary reality would require, already burdened by a difficulty that has pervaded the simplest daily actions. We have started to chase amazement rather than adhering to the canons of proportion and balance in composition, thinking that only something never seen before can be an expression of the new, the innovative, and therefore the future (fig. 4).

The ease of knowledge about contemporary architectures has replaced the direct experience of the latter with the study of their composition, leading to an excess of information that, combined with the speed with which novelties occur, has eliminated the critical distance necessary between the composer and the events that involve them. Everything has become a plausible model, everything has become a possible expressive vocabulary in the field of new architecture.

In a world where the speed of what surrounds us makes nothing capable of remaining unchanged through the seasons, architecture, in its ability to be a composition of known and recognizable elementary forms, was the only possibility of continuing to be a sign capable of enduring over time while aligning with the new values that inevitably emerge from era to era, sometimes adding to the previous ones, other times contradicting or replacing them in the dynamism of architectural response. Today, therefore, the equation architecture-long duration no longer exists. The static vocation of formal culture is in dramatic contradiction with the modern idea of the project. But if the digital world can be 'bent' to the ideative will, allowing the creation of forms that seem hand-shaped, why can't we integrate its attributes instead of replacing it with what is effectively the project, understood as a process of investigation and therefore addition and subtraction of defined forms? Why can't we retrace the steps of compositional investigation and learn again what composition is?

Digital design, parametrically enriched with a myriad of information beyond the capabilities of the hand alone, has effectively eliminated the interrogative aspect, transforming the project from a question to an answer.

It removes doubts and uncertainties, almost becoming a sculpture detached from places, replicable and reducible to a mutable and formless conglomerate.

Why can't we return to a design process that first poses questions and then provides, or perhaps better said, seeks answers? Why can't we investigate the overlap of pure volumes, capable of becoming parametric solids in digitization, rather than obsessing over the idea of a 'plastic architectural strangeness' that fails to address the true questions posed by Architecture?

Architectural form today essentially takes two forms. An Apollonian way, belonging to the order of things, and a contrasting Dionysian way, belonging to the world of disorder. Yet, in the disorderly contemporaneity, the Dionysian version, marked by contrasts between light and heavy, transparent and opaque, to which the contemporary world has accustomed us, seems to prevail as if it could be the unique language of expression for the current world. Therefore, we must question what may not align with this speed while becoming a fixed point in the flow of time. This involves returning to an architecture that rediscovers its compositional matrix not in the need for particularities but by questioning the identity of things, the possibility of decomposition and recomposition of a new order.

Learning once again what it means to inhabit a volume, mentally picturing a space that, in its regularity and defined nature, is viewable, palpable, and controllable by human intelligence. Uniqueness, strangeness, disorder, follow the rules of a fast-paced world in constant flux, where what belongs to these categories today is excluded the next day. Our intelligence is not so capable of controlling the course of its plastic, dynamic forms; failure to decompose and recompose means an inability to control and consequently an inability to envision oneself as an inhabitant of space.

Let's also ask whether architecture, if it endures over time, can become a tool for expressing fleeting values that, once rendered into physical elements, no longer belong to the present? The drawing, always a strongly realistic image of the compositional process result, has become, with the advent of digital technology, an element of significant objectivity in representation, simultaneously a tool for amazement and spectacular representation. This increasingly distances humans from the ability to perceive the space, the environment, the constructed surroundings. "The idiosyncrasies of these
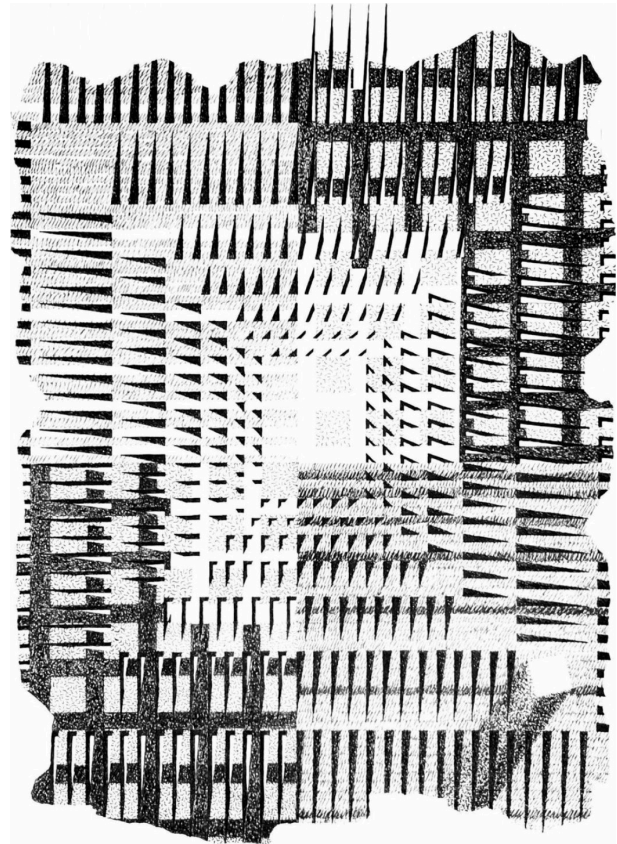

Fig. 4. G. Di Costanzo, 2022. Order between Fullness and Emptiness, Naples.

drawings made it difficult to read them as straightforward architectural descriptions. The initial openness of interpretation might have led some commentators to suspect "mere graphics" [Schumacher 2004, p. 8]. here, Patrik Schumacher says, introducing the world of new digital representations, emphasizing a significant gap between the strongly realistic capacity of the drawing's compositional process and other forms of project forecasting.

Shumacher again who continues introducing the creative process: "modes of representation in architecture played a fundamental role in the development of a series of highly original and influential expansions of the formal and conceptual repertoire of architecture. Modes of representation in architecture are at the same time modes of generation. The creative process to a large extent resides in these modes and means. The creativity and information processing capacity of the "imagination" or "the inner eye" is rather limited and itself dependent upon being trained and developed in conjunction with the development of the media" [Schumacher 2004, p. 8].

Contemplating creativity inevitably requires distancing oneself from digital drawing, where interpretation is predetermined and leaves no room for subjective presence that fosters the exploration of new forms and composable spaces. In digital architecture, man, as an inhabitant of spaces, becomes absent –everything is geared towards transforming representation into an artistic operation that dissects the complexity of geometric forms. This is the new contemporary architecture conceived through parametric drawing, lacking the concept of *hic et nunc* that allowed each constructed form to have its own reasons, cultural motives, and vernacular essence.

Schumacher, advocating for the increasing necessity of embracing the representation of 'fluid' volumes demanded by the world even before the existence of the tools required for their depiction, discusses the development of architectural design techniques by the renowned Iranian architect Zaha Hadid, "Hadid's early elaborate techniques of projective distortion –deployed as a cohering device to gather a multitude of elements into one geometric force field– were already setting the precedence of the current computer base techniques of deformation and modeling of fields by means of pseudo-gravitational forces. Hadid used axonometric and perspective projection were deployed according to their proper func-

tion as means of representation. However it soon became apparent that there was a 'self-serving' fascination with the extreme distortion of spaces and objects that emerges from the ruthless of perspective construction" [Schumacher 2004, p. 9].

It becomes more than necessary to introduce what 'parametricism' is, understood as an architectural movement, primarily postulated by Patrik Schumacher, which finds its foundations in algorithmic logic. The algorithm, viewed as a procedure, becomes a unifying element between the practical and research purposes of design, completely replacing the formal matrix and thus overlaying the world of memory, which is constructed by decomposing the things around us. The contrast between form and algorithm is, therefore, the internal conflict that architecture is finding itself facing with the advent of new tools in the new millennium. Instead of complementing human intelligence, culture, and knowledge, these tools are making way for the simple creation of disorderly complexity, capable of generating wonder at how technology can surpass any possible human conception of space and inhabited environment.

Therefore, drawing is no longer what it used to be, understood as a graphic sign and thus the basis of the project, capable of becoming an analysis, engaging in a dialogue with the dimensions of the city and humans, capable of becoming a trace, as in the Piranesian sense, or even capable of constituting the analytical and constructive framework of architecture, leaving room for compositional questions and technical inventions. Today, drawing is almost entirely absent, replaced by parametric design, which, unlike formal composition, approaches architectural design with a non-linear dynamic system, allowing for a design methodology capable of managing the contemporary complexity of the built environment by operating through progressive logical sequences. In digital design, the project is constructed as an operational logical structure through codes transforming the existing. Digital architectural parametrization, however, should not be confused with the parametrization of architectural elements that has allowed timeless expressions by great names in architecture such as Engineer Pier Luigi Nervi or Engineer Sergio Musmeci, who, through the standardization of structural elements, gave rise to highly significant engineering works.

It might be necessary, therefore, to introduce examples of parametrized digital architecture, focusing on some

Fig. 5. Composition of Volumes and Geometries under the Light, Municipio Square and Partisans Monument, Segrate 1965- 1967 [Aldo Rossi Heirs, courtesy of the Aldo Rossi Foundation].

of Zaha Hadid's projects, starting from the Galaxy Soho to the Guggenheim Museum in Taichung, where the complexity of the project makes the architecture appear as an uncontrollable and uncontainable fluid that articulates itself in the territory.

We could also discuss Gehry Partners' studio with the *Walt Disney Concert Hall* in 2003, the *BMW Welt* designed by the Coop Himmelb(l)au group in 2007, or the *Beijing National Stadium* in 2008, designed by Herzog & de Meuron, the *Yas Hotel* in Abu Dhabi designed in 2010 by Asymptote Architecture, and the *O-14 Tower* in 2010 designed by architects Reiser + Umemoto Architects. Looking at images of these architectures, it becomes evident how the geometries have been pushed to the limit, as if humanity were trying to challenge technology, mathematics, and physics in a process asserting the superiority of its intelligence. However, this intelligence is almost entirely absent because it is replaced by the use of machines, contradicting the true purposes of architecture, which is primarily a social expression intended to fulfill social needs. As such, it has functions that, although variable and changing over time and seasons, must find their realization in spaces and arrangements designed and organized to accommodate them.

The 'ageometries', defined by their own authors as complicated structures, arise from the interaction of non-geometrically defined elements, giving rise to spaces that are non-geometrically definable. However, since ancient times, humans have studied geometry and applied it to their lives, recognizing clear elements within defined forms that they have learned to use, inhabit, and shape.

This new geometric conception is undermining aspects of culture that have always belonged to humanity. What will happen to the little house with a sloping roof drawn by children worldwide if the parallelepiped plus triangular prism shape no longer exists, if it is no longer identifiable as a 'home'? What will become of everything to which we have entrusted a defined form since ancient times?

There are forms that cannot change; it is not about sharp edges and acute angles opposed to the sinuous line and the current free form, but it is about geometry, forms, and above all, matter. Because architecture is not fluid; architecture is materiality, defined spatiality, protection, and security. It is static, not dynamic, belonging to a slow time that is not the engulfing time of the need to overcome increasing geometric, urbanistic, and natural complexities to demonstrate the superiority of technical capability over the human mind.

The hut returns, the focal point of life capable of becoming an object of domestic ritual, as per Aldo Rossi's project from the 1980s. The drawings of Architect Franco Purini also return, capable of experimenting and exploring intertwining forms and narrative planes that merge and distance themselves, lines and underlining capable of becoming research and design tools on the fabric of the city.

Therefore, drawing returns as the architect's only possible perspective on the world because in drawings, new elements, references, and different images emerge. A drawing can be physical or metaphysical, but at the same time, it knows and will always become an articulation of the project. It is a severe act, a process of exploring themes and motifs. Drawing is not just a tool; it is a creative act, the native place of an idea, and then a memory of the design process, a narrative of the choices made and what is known.

So "In the end, there is only light, which reveals objects, and every object, from the tower to the coffee maker, has an essence identical to the others, equally important. The reader feels that something grand has happened, that Rossi has thrown open a window to a new way of seeing things, he has been able to strip away almost entirely from any ideology. Everything is seen as if for the first time" [Rossi 2009, p. 123] (fig. 5).

Notes

[1] Stainless steel 18/10 polished coffee pot with a copper bottom. This is Aldo Rossi's first industrial design project for the large series. Designed between 1980 and 1983, this coffee pot emerged as an evolution of the 'Tea&Coffee Piazza' initiative, which involved prominent architects working on the design of a coffee and tea service. With its strong and evocative image, it quickly became a design icon of the 1980s and the flagship product of the then-emerging brand Officina Alessi.

[2] 'The Conical' is the architecturally inspired kettle created by Aldo Rossi: made of 18/10 stainless steel, it represents the transformation of his geometric drawings into a kitchen object, quickly becoming an icon of design. This is how Alessi introduces the product on its website, emphasizing its roots in geometric drawings and, consequently, in formal composition, which have always been foundational elements of Aldo Rossi's architecture.

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