

# Architecture: History and Representation. Designing an Interactive Atlas. Proceedings and Communication

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## Abstract

*Nowadays a qualitative leap is found in graphic production, a graphic discourse which is encouraged by new technologies and reproduction systems. There is a change in the visual grammars and we find a hyperinflation of the spreading of the new proposals in the new Information society. There is a need to construct a graphic and visual discourse on the History of Architecture. We find that while postmodern society does not believe in a big history discourse, especially in Architecture; contemporary media demand for it, as Lyotard pointed out, in this commoditized society. Time has arrived to reflect on the capabilities new technologies and communication hold. We pretend to analyze the graphic documentary as a language and as an effective mean to express and communicate Architecture History in the last half of the XX century, when different graphic production strategies were used. The documentary research, identification and cataloguing of the graphical material follow the production of Modern Architecture Atlas that consists of partial maps. This would be an interactive map suitable to be consulted from a different range of fields and categories; an Atlas capable to compare architects, art movements and architecture schools.*

*Keywords: Atlas, Technology, Communication, Representation, Information.*

## Introduction

Once advanced XXI century, over the equator of the second decade, the question around a metanarrative about the History of Modern Architecture as an essential vehicle to its understanding and communication is still pending. Nowadays an outline of what could be considered as the state of the art is still incomplete, we find it broken and disperse, probably due to two simultaneous factors. The first one is related to the capability to put documentary in order, its analysis and read, attending to visual culture and current graphic discourse. Parallely, we have the new information technologies, the so known Big Data's capability and its own roles for visual communication, as developed by the Architecture of information AI [Wurman, Bradford 1996].

The second of the factors is the inexistence of a Visual Architecture History of the 20th century as a catalyst for data. This lack may be due to the impossibility of putting together a unitary story about drawing according to the great story of the rise of the Modern Movement, as pointed out by professor Carlos Montes [Montes Serrano 2010, pp. 44-51]. Great story understood as the polyhedrically simplified interpretation of a complex reality, somehow idealised, but comprehensible by generality, as defined Lyotard.

The complexity of treating the Information together with the disbelief of metanarratives in a postmodern world, are the starting points of this investigation. We assume the difficulty to create a global narrative in a hyper-communi-

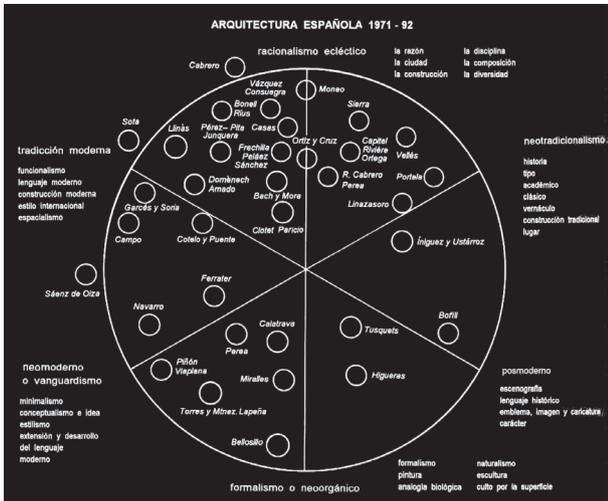
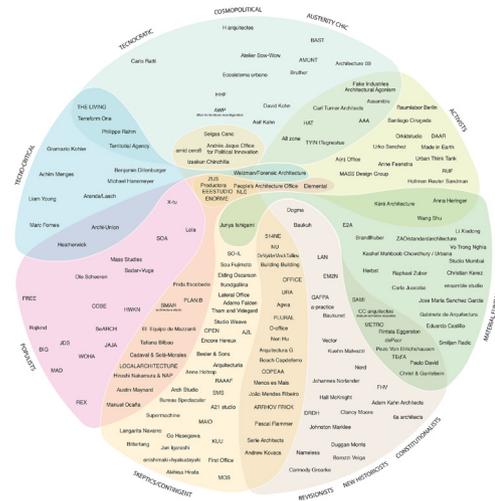


Fig. 1. Arquitectura Española 1971-92 [Baldellou, Capitel 1995].

Fig. 2. Alejandro Zaera-Polo, Guillermo Fernández Abascal, Brújula política de la arquitectura global, 2016 [Zaera-Polo, Fernández Abascal 2016, p. 254].



cated and over-informed society, in which the economy of means and the economy of visual language in this regard are evident. Communicating turns into a challenge. We face a reality in which you can know the whole, but there is always the chance of a partial discourse, so the narrative can be interrupted and altered.

This starting point is contradictory with the current need of studies about the old Great Narratives. In recent time research and publications on new Art and architecture standars thrive. Editorial compilations and gathering in research works and diffusion of its conclusions can be seen in publications such as: 100 Years of architectural drawing, 100 houses for 100 architects, 1001 paintings you must see....1001 films...1001 books...1001... This contradiction is, to a high degree, due to the incapability that theoretical criticism holds to communicate when facing the society need for a practical knowledge. Even if it is only to contribute to the big communication networks, knowledge is what we need, what we seek for. All this proves the discourse's commodity character [Lyotard 1987]. Everything is created to be consumed, and everything is communicated to be desired.



Some tend to be similar to the famous London Metro map by Beck in 1933, where the most important are relations, crosses and colours. Others, like the ones from Charles Jencks, are multiform masses that relate architects, tendencies and data, placed in a strict temporal frame, but where only names and texts are referenced (1980). The diagram from Professor Capitel about Spanish Architecture on the last third of the 20th century [Capitel 1995] discards time and places the diverse architects depending on hierarchy and the proposed categories. So does Italo Rota in his *Centrotrenta anni d'Architettura. Venti anni di altro* [Rota 1979] where he draws the tree of Architecture that emerges poetically over history's natural soil. From the branches, depending on its position and size, leaves with names of architects are born, which are shaded by small suspended decorations where the unclassified place their singularity. All of them are an attempt to explain the complex in a simple way, to understand, paraphrasing Albert Einstein.

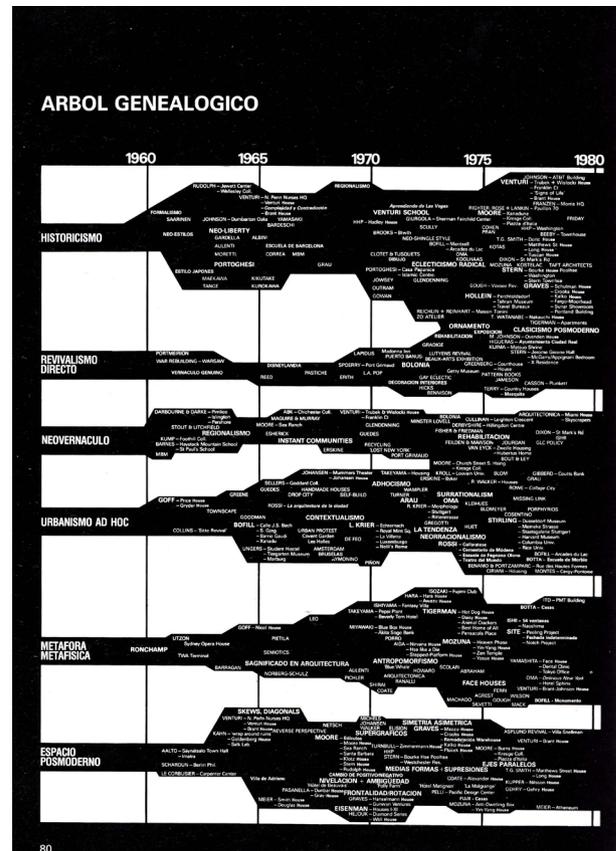
### Time frame

The time frame in which we pursue to realize this analysis of the drawing as graphic language and effective means of expression distinctive of the History of Architecture, focalises in the second half of the 20th Century. This period is subsequent to the Modern Age of the first half of the century, where diverse graphic production strategies were used.

The context in which this work and investigation are placed has a very clear beginning with the CIAM that has place in Dubrovnik (1956), where the TEAM X is built and an also outstanding end with the 10th International Architecture Biennale in Venice (2006), where international architects such as Norman Foster, Zaha Hadid, Richard Rogers etc. concur under the title *Cities, Architecture and Society*.

This time frame has been chosen because it results interesting to observe the gap produced in the Architecture of the 50s; how the second half of 20th century started with a clear predominance of the Modern Movement but with the years, and especially from the 60s, its bases started to be questioned. It is like that the great diversity of proposals of all sorts of styles appears, which makes of the chosen time one of great interest for analyzing the different movements. The architectural panorama referring to the

Fig. 4. Charles Jencks, *Arbol Genealogico*, 1980.



graphic discourse finds its way through the use of diverse formulas, the management of a more complex and sophisticated technology, getting to the use of informatics as the key tool, showing a special interest for the problems on the fields of urbanism, sociology and economy.

In that sense, it is key to start the period with Dubrovnik's CIAM, where categories as mobility, cluster, growth and change, urbanism and habitat are proposed.

The CIAM (Congres Internationaux d'Architecture Moderne) were a very important piece on the development of 20th century Architecture (1928-1956) and on the theory and practice of urbanism. The Modern Movement appeared as a result of 19th century rationalism and the need of a social development, making architects' worry about style move onto themes such as method, organisation and technology.

Unlike in the past, Modern Movement architects developed, as a working tool, the need to create communication strategies to put their architecture in the map. Well known are the publications *Domus*, *Stijl*, *L'Esprit Nouveau*, *Bau-meister*, *A.C.* in Spain. All of them didactic, revolutionary and clearly propagandistic [Frampton 2000].

The dissolution of the CIAM was obvious when the high number of members, over three thousand, made the discussion about any topic complicated, generalist and diffuse. It was then that the TEAM X was left in charge [Giedion 2009]. Some movements make then their way whose characteristics and renewing ideas turn the comparison among them the key to understand this assorted epoque. From the new Brutalism to Ecologism we have

selected the Team X, the Metabolists, Archigram, Archizom, Superstudio, High-tech, Postmodernity and Deconstructivism [Benevolo 1987].

Several architects have also been included, who despite not being considered inside any movement should be taken into consideration for their importance in the development of the Architecture of the second half of 20th century. Not only references to architecture are made, but to understand the Atlas in its complexity other ways of artistic expression must be included, together with some relevant exhibitions and competitions that give as a result a wider comparative spectrum [Grijalba Bengoetxea, Ubeda Blanco 2012].

The end of the period coincides with the X International Architecture Venice Biennale (2006), Bial that for the first time regards the problem of urban development and its planning, continuing with the worry for urbanism that, as mentioned before, occupied the architects of the 20th century. The topic cities, architecture and society focused the development of this Biennale in urban planning from the social dimension of the city, the relation between architecture and society. The comparison with the chosen date as a starting point for creating the map: the CIAM from Dubrovnik and the architects of the TEAM X in inevitable to obtain a better communication efficiency. Like this, beginning and end of this time frame are chosen because of their 50 years difference (1956-2006) and because of their similarities on reflecting similar worries related to architecture and urbanism by the outstanding figures on those moments.

Fig. 5. Urtzi Grau, Daniel López-Pérez, *Publications in Architectura of OMA/AMO*, 2007.



## Maps / Athlas. From the diverse to the particular

The development of the investigation comes from a documental search, a Big Data that enters a process of acknowledging and cataloguing on a first phase. We chose a series of examples from that period with all their graphic material for an ulterior analysis, whose final objective is the making of an Atlas: an interactive map of space-time. It is important to emphasize that the gathered documentation needs to be first filtered and evaluated because what interests us is to process it in order to turn it into a graphic representation that can be immediately visualized. Since there has never been a similar study to follow, we have selected the pieces of work according to several criteria: their inclusion in History of Architecture manuals, the number of referred times in bibliographical resources, and finally their presence in the indexes of architecture magazines published within the studied period, all these included in the bibliography [Curtis 1986; Gösel, Leuthäuser 1991; Hitchcock 1981; Jenks 200; Rossi 1986]. The aim is to create a document that analyzes diversity using an accessible and userfriendly communication tool. A mixture of a written and visual communication [Berlin 1977]. In contrast to the nice only visual icon used by Otto Neurath and Nigel Holmes [Holmes 1991] and to Tufte's complex combination of text and image [Tufte 1983], we have opted for a halfway conciliatory intermediate.

In the last decades the graphic discourse has emerged even stronger, encouraged by new advances in reproduction systems and new technologies that contribute to a new reading of information in this digital era, when the use of new gadgets influence our way of receiving data and of communicating in a very visual way.

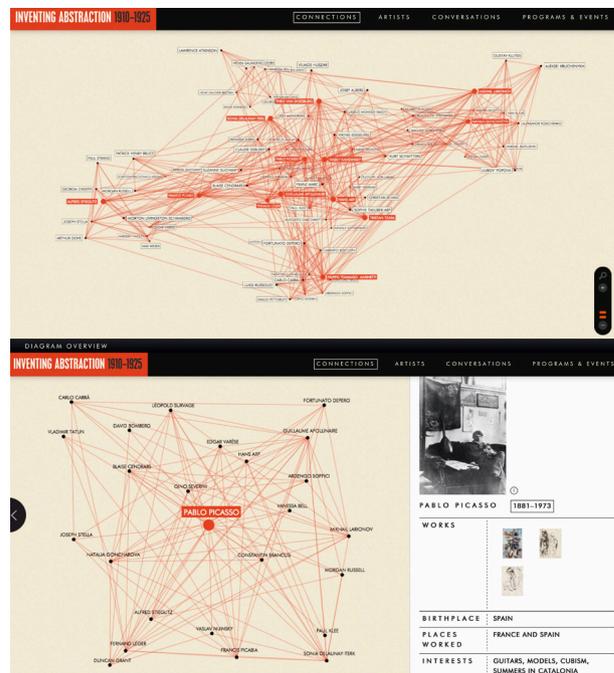
A previous approach to the topic consists in a search of examples of maps related to architecture and arts through time. Inside the frame of architecture we find various examples. Charles Jencks's paradigmatic genealogical tree, shown in the image, analyzes different architecture movements during a twenty-year period. He places different tags with names of architects and architectural pieces of work. It is interesting to observe the disposition of the information in relation to the time location, the category and the hierarchy: according to the importance of the piece of work the tags are bigger and depending on the concepts they are related to, they appear closer to each other. This example uses, however, only keywords and names, it lack images that transmit the information in a more direct

and visual way. This is a map that depends on the viewer to be understood, it depends on their knowledge. It is an initiatic diagram.

The next example includes one of the aspects relative to the visualization by diagrams and images that focus on a very effective way on what they want to transmit. It is the case of the Production of the Architecture Publications by OMA/AMO.

Along a chronologic axis, images of diverse magazines, media, etc. are placed. All these graphics are supported by extra information at the bottom of each column. Occasionally comic balloons appear and the most important events unfold as an explosion. Under the apparent chaos a magnificent order is hidden, where all the studio publi-

Fig. 6. Leah Dickerman, Masha Chlenova, *Exposición Inventing Abstraction: 1910-1925, MoMA, 2013. Interactive Virtual Map, general connections and example of particular links of Pablo Picasso: <www.moma.org>* (accessed 2018, June 10).



cations are stacked in organized growing order through time. It is a complete map.

In 2013 MoMA created a map towards which a fesh approach and reading are possible its interactive character. It lacks a physical format; you can only access it online. It depends on new information technologies. The apparent cobweb set up is disturbing and at the same time inviting, it comprises a game and a change in shape, something necessary in new communication systems.

Names of artists show up in different colors depending on their relevance, and once you zoom over them you can observe their relationship with other authors and at the same time a technical file opens with information about their lives and work. The map itself does not contain images, but the names of the artists. It is once you get deeper into a particular author that you can access more information on his work. This map adds a fundamental aspect towards the configuration of our own map, the interactive part. The visual process that accompanies the acquisition of new knowledge has changed to be dynamic; an online connection system, accessible across the globe. It is a new way to code, order and communicate.

### An interactive Atlas. The outcome

Through these examples we analyzed the ordering principles to consider when designing the new Atlas. It is important that the great amount of documentation we have at the beginning becomes into quality information, which means that the Big Data is included and compressed in a graphic representation that incorporates not only tags but images and connections among the tags. At the same time, it must facilitate the display of more information zooming on some elements and allowing that different windows of information are included within the document.

In this interactive space-time map, affinities and differences along the time and even more formal aspects, both plastic and graphic should be fit to be compared. The fields of study presented are connected by itineraries and categories depending on the established hierarchy: 100 architects, 10 architectonic movements, 50 pieces of art, 10 artistic movements, expositions, etc... As part of the interactive process, its itineraries should be activated or turned off enabling us to measure the impact and their relationships depending on the needs of our search or study. Each category is composed by files with information

related to pieces of work, architects, exhibitions, etc, and its codification referring to the ideas of the movement in which it is included.

### An open Atlas

The creation of our Atlas, understood as a compendium and as a complex addition of diverse maps, started by arranging the information in written and using. Then, once the images referring to the chosen graphical examples had been collected, we have designed a digital map and finally we introduced the playful- dynamic component to facilitate a better understanding of the existing relationship among the diverse items.

To make the most of this interactivity, we need an open Atlas. An open working field suitable to be expanded and filled in with new tags, images, connections, etc. It should not be considered as a unique graphic representation; on the contrary, and due to the itineraries and layers that can be activated or turned off, various maps are prone to be created depending on the characteristics to be compared or the interest of the study.

Our Atlas seeks for a contemporary view of the graphic discourse; one that gives access to knowledge through an interactive tool that allows us to make a comparative and temporary study. It is a compilation of diverse partial knowledge maps that, in their continuity, interpret a reality. The final objective is the creation of a tool that allows us to make a comparative study through the exemplification of architects and works.

As an example of great communication, we must have a look at the very interesting map created by the first director of MoMA, Alfred H. Barr, *Cubism and Abstract Art* [Barr 1936]. In 2013 the museum decided to revise the legendary exhibition under the title: *Inventing Abstraction 1910-1925* [Dickerman, Chlenova 2013]. The well known poster, condensing knowledge and advertising, was created a dynamic model and completed with personalized files of movements and artists. The final result is a clear, simultaneous, interactive model. This is a remainder and an information tool that brings together accuracy and play with strict information. It recreates the old proceedings using modern techniques, a good model.

In our *Atlas of Modern Architecture*, when we compare the informative graphics to the text diagrams the result is surprisingly effective. The facts are orderly presented and



Fig. 8. Proposed map.

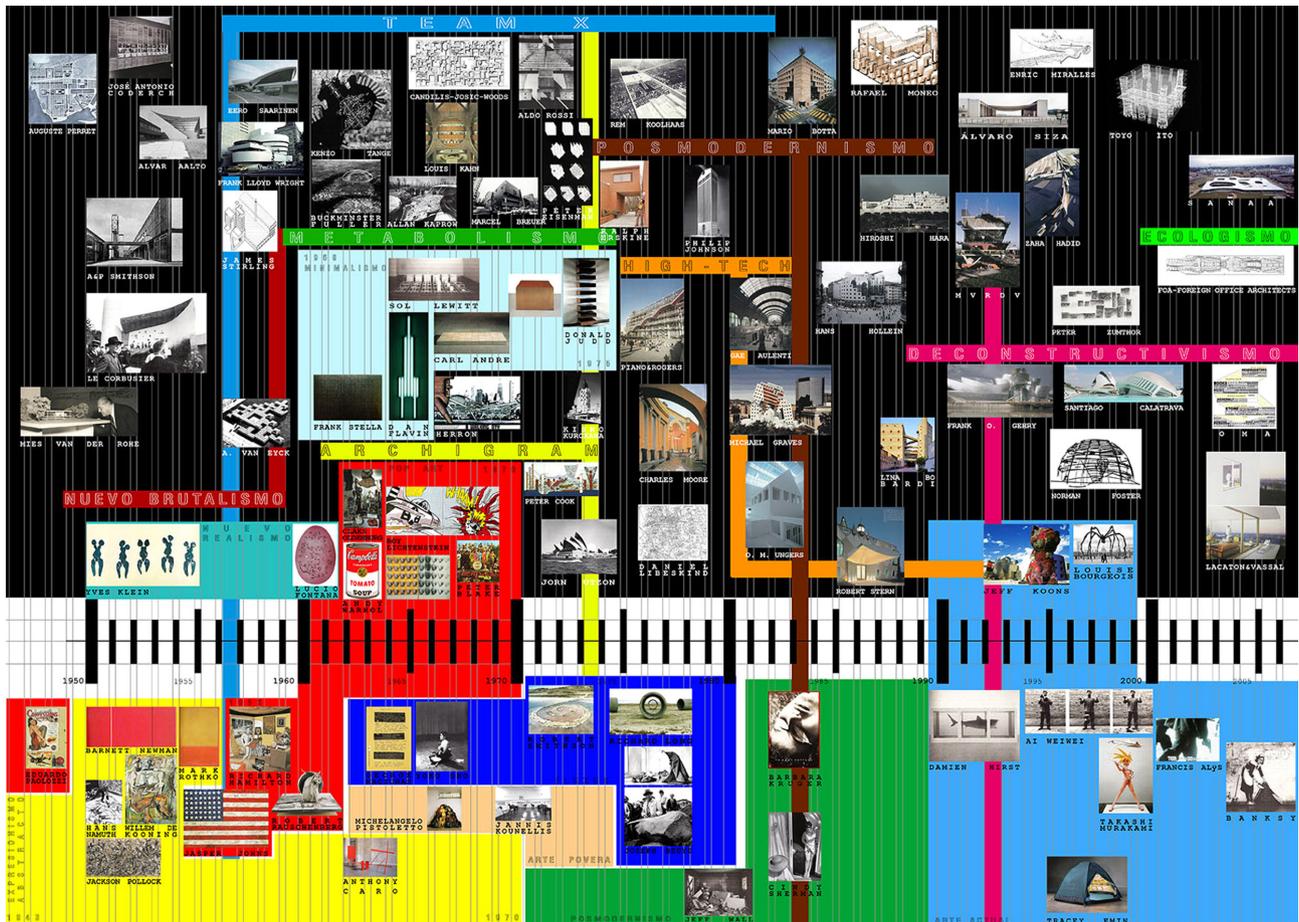
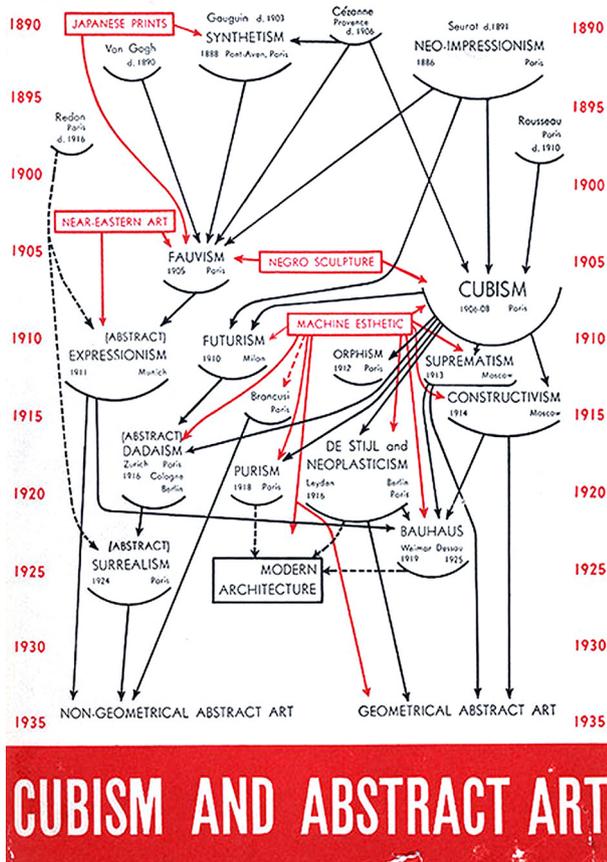


Fig. 9. Alfred H. Barr, *Cubism and Abstract Art*, exhibition MoMa, 1936, April-March [Barr 1936]



the connexions are easy to understand. In the digital era links are increasingly used to communicate; blocks of text that combined with graphics, photographs and diagrams to create a story, give an explanation or explore our world [Rendgen, Wiedemann 2015].

Probably working on an Atlas about the graphic discourse is a conclusion itself: the process of working on the proposals, the analysis, the choice of the documents and their transformation from the first holographic sketches to a digital application as a result. Despite the trial for aseptic objectivity with which the process has been taken there is always some subjectivity. From every choice a positioning on History of Architecture and its representation in the last five decades is taken [Cortés, Moneo 1976].

The treatment of visual information has become an objective in itself; clarifying and analyzing the contents; being aware of hierarchy, association and position of the elements in order to provide the most possible information at just a glimpse [Holmes 1991]. It is not, then, a document only seeking for compositional-graphical excellence, but an effective as a narrative of the knowledge in a graphic discourse one too. It is an Atlas capable of communicating a complex subject in a clear way [Alcalde 2015].

### Image, text and simultaneity. Epilogue

The humongous work has been limited to 100 architects, 10 architectural movements, 50 pieces of art and 10 artistic movements in pursuit of a clearer communication. But, despite the need for a limitation, obviously needed in any investigation work though efficient, it has proved to be in some cases partial and exiguous, hence its open character. Information has been arranged following three criteria: time; relationship and interrelationships within the different movements and categories and the critique impact. It is a map that can be completed and clarified, even though not any change can be accepted in favour of an accurate and clear communication. More graphic documentation does not necessarily mean a better transmission of knowledge or a better clarity as we have realized during the process. Efficient graphic communication implies choices and hierarchization [Tufte 1997].

This 'Atlas of Architecture' does not pretend to reduce knowledge to an image on relation to its position in time. Our intention is not to trivialize its content, to achieve a simplistic communication. It is not a reductionist sketch

that pretends to be a superficial analysis reducing knowledge. On the contrary, we tried to avoid the common dysfunction of the Theory of Big Data Communication: fast read but little knowledge. With its interactive capacity, which enables modification of the search mechanisms and amplification of information with emerging windows of complementary documentation, it is not only a map to orientate but an Atlas of knowledge, which also makes the addition of as many maps as we will be able to elaborate possible. All this is achieved using technological mechanisms of communication accessible nowadays. Simultaneity is finally the last contribution. The new Atlas can interact in several windows at the same time, even

use several registers making good use of the modern features new technologies offer; the multi-window and multi-tasks. It is possible to view the general map at the same time that we activate a particular line of affinities, from the general map we can open an emerging window about an author, a work or an architectural movement. It is as flexible and as dense a tool of knowledge as the user needs.

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Fig. 10. Proposed Map. Samples of emerging window.

**01 JACKSON POLLOCK**  
AUTOR: ESTIM. N.º 30  
1900  
DESCRIPCIÓN: ARQUITECTURA DE UN

"[...]una estampida de todos los animales del oeste norteamericano: vacas, caballos, antílopes y búfalos, todos corriendo a la vez contra esa condenada superficie". Jackson Pollock era un artista con una naturaleza caótica, incapaz de controlar sus estados de ánimo y con grandes problemas con el alcohol. Su método de **action painting** precisamente consistió de su interior y estallaba en el lienzo con gran fuerza, **alí over**, creando las **drop paintings**, lienzos enormes salpicados de pintura.

**DESCRIPCIÓN DE LA OBRA**  
Esta obra no figurativa es una **drip painting**, en la que Pollock aplica por los cuatro costados la pintura negra, blanca y marrón diluida sobre un lienzo sin tener colocado en el suelo en lugar de en un caballete. El artista vierte, gotea, salpica, golpea, remueve y arroja cosas manipulando la pintura fresca con palas, espátulas, cuchillos, arena... No hay un punto central ni jerarquía, cada elemento es igualmente significativo en esta composición **all-over**.

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LOS GONZÁLEZ, ILLI. (2014) **ARQUITECTURA**. Ediciones de la UVA. Madrid, 2014. 150 p. ISBN: 978-84-9421-150-0.



**02 HANS NAMUTH**  
AUTOR: POLLOCK, JERARDO  
AUTOR: ESTIM. N.º 30  
1950  
DESCRIPCIÓN: ARQUITECTURA DE UN

Hans Namuth, fotógrafo de origen alemán, fue una figura clave en la inclusión de Jackson Pollock como estrella del mundo del arte. Aunque al principio no le convenía la obra de Pollock, a través de un amigo visitó su estudio y le preguntó si podía fotografiarlo durante su trabajo. Mediante esas fotografías en blanco y negro se reproduce por primera vez su método pictórico de ritmos dinámicos y visuales y sensaciones, creando una **coreografía instintiva**. Son imágenes precursoras de la **performance**.

**DESCRIPCIÓN DE LA OBRA**

Esta fotografía forma parte del libro **Pollock Painting** de Hans Namuth, de 1950. En ella se ve a un Pollock apasionado, inclinado y atrapado de acción, vestido con unos pantalones amarillos y una camiseta negra, fumando un cigarrillo y con los brazos tensados en acción. Sus emociones se expresan a través de las huellas de pintura sobre el lienzo.

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