

## Shrink@: Deprogram/Despecialize

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### ABSTRACT

At Encoger© movement, we aim at building a new architectural theory associated with ideas of economic degrowth. Based on verbs that work as theoretical vectors – densify, de-normalize, unfinish, seclude, implode, de-flesh, deflate, among others – we seek to define a discipline opposed to that of the Modernist movement. 'Despecialize', which we shall rename here as 'deprogram', is one of the terms used. With it, we aim at disassembling the indissoluble relation between spaces and uses, which forced to dismantle an architecture when the program changed. But, also, the article delves into another line, proposing the existence of previous functional structures that presuppose a functional organization of the project before the first formal decisions.

The Modernist movement established a series of principles in the discipline that implied an absolute change in the norms that until then ruled architecture. These principles were built through the successive accumulation of slogan-phrases like Form ever Follows Function (Sullivan, 1896, p. 408); Une maison est une machine-à-habiter (Le Corbusier, 1923, p. IX); Le terrain était vide (Le Corbusier, as cited in Boesiger, 1953, p. XX); or Less is more<sup>(1)</sup> which Mies van der Rohe started using after 1947. In the same way, some book titles contributed to these principles, like Ornament und Verbrechen, published by Loos in 1908, and sets of project rules such as Les cinq points d'une nouvelle architecture (Le Corbusier & Jeanneret, 1927). Each one of them, together with their underlying social ideology, bestowed a different and characteristic identity to the different Modernist movements of those first years. With the exhibition 'Modern Architecture: International Exhibition' held at the MoMA in New York in 1932, which launched the international style concept, and with the subsequent leap and regrouping in the United States of America of the avantgarde architects fleeing the imminent World War, there was a fusion into a common theoretical body. Although what initially brought the exhibited works together were some minimal stylistic configurations, Fordist capitalism ended up modelling into the discipline – and ideology – of a universal liberal and functional architecture (Minguet Medina, 2017), whose model was the efficacy of the industrial machinery and the optimistic notion of unlimited growth.

One of the principles commonly associated with this discipline is that built spaces and programs are inextricably unified in the architectural object. Although the concept of 'function' could encompass corporate or image-related issues, the conception of architecture as an efficient industrial machine supposes that the programs guide the organization of the project and define spaces and materials. The obsolescence of any of the poles would force, almost necessarily, the complete substitution of the building. This principle is identical to the rest of the consumed products: they are discarded and a new more updated one is produced. It is more effective, from a wider perspective of the economy, to build from zero than to readapt or dismantle a form in order to accommodate the new programming (or to keep using it in a partially inefficient way).

The economic model of unlimited growth has been proven exhausted. Many ways of rethinking the system have emerged. Eco-efficiency, one of them, proposes the optimization of resources, both in the use as well as in the productive processes. That is, to be more efficient, usually through more sophisticated technologies. In architecture we observe a technification of construction, as can be seen, for instance, in Masdar City, the project by Foster+Partners partially opened in 2013 in Abu Dhabi. But the Jevons' Paradox, or rebound effect, demonstrates that this is not a solution. This paradox, so called by William Stanley Jevons in his study

on coal consumption during England's industrial revolution once the use of steam machinery had been massified (1865) establishes that, as efficacy increases, so does production and, for this reason, the use of resources as a result of mass consumption. A second way to work would be biomimetics. In this case, it would have to do with adapting society and architecture to the forms, functioning and rhythm of growth of natural ecosystems. The experimental building *Next 21* (1992, Osaka), by Yositika Utiida, Shu-Koh-Sha Architectural and Urbano Design Studio, as well as the *Ökohaus* (1988, Berlin) by Frei Otto and Hermann Kendel, could be examples of this second way.

But the most radical proposal responds to the notion of degrowth, a concept coined and defended by personalities like Romanian mathematician and economist Nicholas Georgescu-Roegen (1971), founder of thermoecconomics, and French economist Latouche (2003, 2007), professor emeritus of economics at Paris-XI University. In this case it is about a complete switch of paradigm that would modify not only the productive systems, but also the social and cultural modes. In architecture, this concept has only been analyzed in the processes of decay of cities, mainly in the research carried out between 2002 and 2008 by the Federal Cultural Foundation under the direction of Philipp Oswalt in cooperation with the Leipzig Gallery of Contemporary Art, the Bauhaus Dessau Foundation, and *Archplus* magazine under the title 'Shrinking Cities<sup>(31)</sup>' (see Oswalt, 2005, 2006).

Starting from a research project financed in 2009 ('Tispas', 2010), we've worked – both in the ProLab Research Group at Universidad Politécnica de Madrid as well as at our own

professional studio, where we founded the civil association 'Movimiento Encoger<sup>(31)</sup>' – in the construction of a theory founded on the degrowth principles that would substitute the dictates over which the international style was based. At the foundations of this work lay a series of thirteen verbs (densify, de-specialize, de-normalize, unfinish, uncomfot, juxtapose, implode, de-flesh, reorganize, suppress, de-democratize, reconvert, and deflate) that operate as project objectives.

Next, we offer some reflections on one of these verbs, de-specialize, which, with the progress in research, has been combined with the verb deprogram. The terms themselves already convey a clear idea: programs have to be placed outside the basic design decisions; foreseen uses must be exceeded, unexpected practices must be included; room must be made for future functions; the concept of adaptation must be eliminated and substituted by adaptability – adaptation is the adjustment of the forms to functions; adaptability, instead, is the capacity to accommodate, modifying the behavior and not the form –; materialities must be liberated from their associated prejudices. To de-specialize, one must lose what's specific and arrive at what's undefined, in the broader sense of the term. Let's look at the unlimited imprecision of the Chinese *caidao* against the specialization and exclusiveness of the wide collection of Western kitchen knives (Figure 1). The *caidao*, also called *tou*, is a multi-function cleaver widely used in the Asian East. It has a large carbon steel blade, between 18 and 28 centimeters long and 10 centimeters wide, with one of its edges cut in a slight curve. Despite being characteristically very wide, it is very light, thin and sharp, allowing a

wide variety of cuts, from a simple slash to the thinnest chopping imaginable. But also, as points out Kenji López-Alt (2010), it is used in the kitchen for other tasks:

*"Can be sharpened for precise knife work, the flat can be used for pounding and mashing aromatics like garlic and ginger, the rounded handle is used as a pestle for grinding spices, the blunt back edge is used for tenderizing meat, and the wide flat blade makes it ideal for transferring chopped ingredients from cutting board to wok."* (Kenji, 2010, par. 5)

Or even more, it can be used outside the kitchen. As anthropologist E. N. Anderson (1999) points out, it can be used to "cut wood, (...) clip nails, sharpen pencils, carve new chopsticks, slaughter pigs, shave, (if it's sharp enough and it should supposedly be so) and settle accounts, old and new, with one's enemies" (as quoted in Wilson, 2013, p. 89).

Why this unspecialization in form? While in the Western knife the form of the blade and the movement required for cutting coincide (always horizontal, from front to back, following the blade), the *tou* is handled in different ways (balancing, vertically, pressing, levering, horizontally, etc.) according to the different ends pursued.

In principle, the concept of Architectural types "describes a group of objects characterized by having the same formal structure" (Moneo, 1982, p. 190). But, since it refers to architectural objects, this structure evolves and is refined over time. Besides, the concept that characterizes each one of these types appears always sublimed, so it is never expressed directly. Some formal modifications that we may introduce into them, like subverting dimensions or

modifying the movements of use, may de-specialize them. The galleries of Jean Nouvel's Nemausus building in Nîmes (1987) exaggeratedly oversized in width, manage to accommodate an exterior corridor, a driveway for motorbike access to a house and a private terrace for each apartment. All of this coexisting in one element.

Surely, the most specialized architectural type, as much for its symbolic relation to culture as for its complexity in the control of the flow of users and the technical sophistication that stages reach nowadays, is that of theatres. Converting these conditions into generic produces some stage spaces that are more versatile and potent. In the renovation of the Teatr(o) Oficina Uzyna Uzona by Lina Bo Bardi together with Edson Elito (Sao Paulo, 1994), the street is introduced into the architectural object making the public invade the stage space, perhaps the most inaccessible part. We find a second example in the staging of King Lear, according to the intervention by architect Luis Longhi, at the ruins of the Teatro Municipal de Lima in 1999 (see Longhi, 2008). In this case, after the destruction by a fire of the superficial elements, the interior was transformed into an undifferentiated space. So that acting took place both in a ramp made of steel profiles that crossed the stage (stripped of its roof) as in the seats and balconies.

This process can be taken to the materials and the elements (structures, installations, etc.) that constitute an architectural object. A material is not programmed for a specific use or qualities: some reprogrammed traffic signals are used as parts of the façade at the Transport Museum in Lucerne, by Gigon and Guyer (2009); a modification in the thickness of the metal sheet in the tables of a restaurant in Yamaguchi

(a very early project by Junya Ishigami, 2008) transforms a stable and flat surface into an undulating and unstable surface in need of counterbalancing by pots with plants; a pavilion in Vijversburg Park in the city of Tytsjerk (Junya Ishigami together with Studio Maks/Marieke Kums, 2017), where the structure loses its specificity (there are no steel profiles), makes another element take on the gravitational loads (glass enclosing).

But we propose one more step in this concept, bringing it closer to the notion of 'de-programming'. It must be also extended to the construction of architectural language itself, to its deep structure, following a parallel with Noam Chomsky's generative grammar. Just like Chomsky defines a language as a "set (finite or infinite) of sentences, each finite in length and constructed out of finite set elements" (1957, p. 13), we understand that architectural objects are an infinite set of organized entities, composed of limited elements (walls, floors, materials, programs, structures, etc.) that are arranged in a spatial succession, following an underlying hidden order. This order is not applied at the time when it's planned, but rather before starting to make formal decisions, for there is a certain preprogrammed specialized grammar that we apply instinctively. They are patterns or pre-structures of organization, similar to those in the abstract linguistic structures of generative grammar that Chomsky describes as "a device that generates all the grammatical sequences of [a language] L and none of the ungrammatical ones" (1957, p. 13). In them, each future element assumes a previous function in relation to the whole. To design is to select a deep programmed pre-architectural set, one that indicates a spatial hierarchization and functioning that is generic (narrative,

figure-background, extensive, grid, etc.) to apply over it the particular conditions (uses, place, meanings, etc.) with which to arrive at the final visible form.

In each historic era, the architectural discipline has selected the systems of order that are more adequate to its ideals in detriment of others that were seen as inadequate. These systems constituted the set of programmed devices to be used in the design process. In classical periods it was language, tracing, composition or type. During the Modernist movement these systems persisted, albeit with changed names; language for styles, tracing for patterns, composition for collages and type for processes. But one more emerged: the machine, and the diagram as the visualization of its operations.

To try to understand the de-programmed order systems we could look at other special situations where this relation between representation (perception) and composition (structure) does not exist. As seen at the drawing<sup>(4)</sup> of a face that a patient with apperceptive visual agnosia has done, the parts are recognizable (eye, mouth, nose), but the underlying structure with which we order those fragments in an innate way has disappeared. Apperceptive visual agnosia is a particular case among agnosies, a neural disease where the recognition of things is impaired (Oliveros Ruiz, 2007, p. 157). It is characterized by a correct perception of the individual elements that constitute a set, but, at the same time, by the inability of organizing them in a meaningful (intelligible) whole. The patients with this syndrome have difficulty interpreting relations between objects. They do not integrate them into a global meaningful form. Oliveros Ruiz quotes neurophysicist D. Marr, author of

the 'perceptive model' theory, pointing out that "the brain is capable of storing some form of information about the objects/faces/figures, a description at least coded, schematic or simplified of the same called 'representation'" (2007, p. 161). This coded information called representation would correspond to the laws of pre-structure of order in form. It is the basic, programmed underlying pattern that allows us to reconstruct into a recognizable face the disperse and blurry features in the portrait that Francis Bacon painted of Michel Leris in 1973<sup>(6)</sup>.

Chuck Close is an American realist painter that suffers this disease. He uses other systems that neutralize this indisposition to compose a form from within totality. In an early stage he solved this by projecting and painting, in a hyper realistic manner, over very large-scale canvases. Everything has the same value, the pores on the skin, the beard hairs or the eyes, arranged as in a display case. The order is a display. In a later stage he operated with color pixels to paint points in a rectangular grid<sup>(7)</sup>. Each pixel is autonomous information, with a high degree of abstraction. Photographs that show him working at his studio are explicit, he doesn't need to step away from the canvas to look at it.

These two order systems – basic tracings with recognition of the structure or grids of abstract patterns – are also used by face recognition systems. In them, an algorithm automatically identifies a face, be it by the analysis of facial characteristics and the structure of each face, be it by the virtual reading of pixels. But, likewise, we can make the way backwards and de-program them by means of camouflage using makeup techniques and hairpieces that distort the algorithm<sup>(8)</sup>. Again, fragments


without subordination among them nor in respect to a given totality.

These normalized prefigurations do exist: we are able to orient ourselves around a building without ever having been there or seen a floor plan. Before designing the first stroke of a plan we've already chosen one of those order systems as if it were a grid with the functions preprogrammed for the future parts of the design. Even if the function would disappear from those spaces, they would still preserve their structural relation among them and the whole. But, if it didn't exist, the spaces could assume other completely different orders.

The terms *protoplans* and *protosections* (Soriano & Santacana, 2011) defined a type of plan or section designed by means of a deprogramming of the original graphic documents and its reorganization into new architectural entities (Figure 2). Any fragment of architecture has some germs of being, an architectural DNA that, once deprogrammed from its origin and projected onto another context, are capable of behaving in a polyvalent manner. The book *Grammaticals©* (Soriano & Urzáiz, 2014) features some exercises on this other polyvalent grammar.

There are few examples where the deprogrammed, memoryless composition has been present since the beginning of the project. The proposal presented by the authors of this text for the New Taipei City Museum of Art (2011) (Figure 3) deals with 100 different-sized fragments, cut out from 100 museums all over the world (Soriano, 2017, p. 99). The plans show a de-hierarchized ordering of the same. It's not a collage but a simultaneous

staging. There is no basic organizational structure in the shape of a tree (access-lobby-halls-services-technical) but a uniform arrangement, like in a display. The initial parts were deprogrammed of their functions and left waiting for possible future programmings. The circulations together with the fixed and mechanical stairs were overlapped according to the proposed paths, but without any relation to the initial shapes. Likewise, another proposal by the authors of this text presented to the competition for the Hans Christian Andersen Museum in Odense (2013) (Figure 4), repeats this system of deprogrammed spaces and de-hierarchized organization, in this case using the drawings done by the creator of the characters of his tales, projected as shadows over the free space. The plan shows an ambivalent arrangement, without allowing us any possibility of distinguishing the figure from the background, nor serving spaces from served ones. Any element can assume any space-organizing function at will, according to how we inject into the whole either some uses or some places of access and connection.

Deprogramming is not only eliminating the projection of a function over a form or using elements for more things than those originally thought, or breaking up the relations between element and meaning. It is to make it lose the conditions of specialization and specificity intrinsic in the systems of order that we use, to increase the possibilities of programming of a given composition. It is to handle freely any architectural document, without recognizing the laws that generated it, allowing that any part takes on another, unforeseen, role in this ensemble. 

## NOTES

- (1) Mies borrows the idea from a verse by Robert Browning in 'Andrea del Sarto', verse 70, in *Men and Women* (1855), related, in turn, to another verse by Christoph Martin Wieland 'Und minder ist oft mehr' (And less is frequently more) (1774).
- (2) [www.shrinkingcities.com](http://www.shrinkingcities.com)
- (3) [www.encoger.org](http://www.encoger.org)
- (4) See [www.tathasta.com/2017/12/psychiatric-syndromes-that-are-really.html](http://www.tathasta.com/2017/12/psychiatric-syndromes-that-are-really.html)
- (5) The first portrait made by Bacon of the French writer and ethnographer (34 x 29 cm) is part of the collection of the Musée National d'Art Moderne in France, hosted at the Centre Pompidou.
- (6) For example in his "Big Self-Portrait" of 1968 (273 x 212 cm) see: [http://chuckclose.com/work008\\_zoom.html](http://chuckclose.com/work008_zoom.html)
- (7) See, for instance: [http://chuckclose.com/work204\\_zoom.html](http://chuckclose.com/work204_zoom.html)
- (8) <https://cvdazzle.com/#looks>

## REFERENCES

- BOESIGER, W. (Ed.). (1953). *Le Corbusier. Œuvres complete. V5. 1946-1952*. Zurich, Switzerland: Girsberger.
- CHOMSKY, N. (1957). *Syntactic Structures*. The Hague, The Netherlands: Mouton.
- GEORGESCU-ROEGEN, N. (1971). *The Entropy Law and the Economic Process*. Cambridge, MA: Harvard University Press.
- JEVONS, W.S. (1865). *The Coal Question: An Inquiry Concerning the Progress of the Nation, and the Probable Exhaustion of our Coal-mines*. London, England: Macmillan and Co.
- KENJI LÓPEZ-ALT, J. (2010). Equipment: How to Choose a Meat Cleaver. Retrieved from Serious Eats: [www.serioouseats.com/2010/08/how-to-choose-buy-care-for-a-meat-cleaver.html](http://www.serioouseats.com/2010/08/how-to-choose-buy-care-for-a-meat-cleaver.html)
- LATOUCHE, S. (2003). *Pour une société de décroissance*. France: Le Monde Diplomatique.
- LATOUCHE, S. (2007). *Petit traité de la décroissance sereine*. Paris, France: Mille et Une Nuits.
- LE CORBUSIER. (1923). *Vers une architecture*. Paris, France: G. Cres et Cie.
- LE CORBUSIER, & JEANNERET, P. (1927). Les cinq points d'une nouvelle architecture. *L'Architecture Vivante*, (Automne-hiver).
- LONGHI, L. (2008). Intervención en las ruinas del Teatro Municipal de Lima: Lima, Peru. *ARQ*, (68), 54–59.
- MINGUET MEDINA, J. (2017). *Obliteración en la arquitectura del tardocapitalismo* (Doctoral Dissertation, Universidad de Málaga). Malaga, Spain: Universidad de Málaga.
- MONEO, R. (1982). *Sobre el concepto de tipo en arquitectura: textos de arquitectura*. Madrid, Spain: ETSAM.
- OLIVEROS RUIZ, A. (2007). Agnosia visual. In J. Peña-Casanova (Dir.), *Neurología de la conducta y neuropsicología* (pp. 157–184). Madrid, Spain: Editorial Médica Panamericana.
- OSWALT, P. (Ed.). (2005). *Shrinking Cities. Volume 1*. Ostildern-Ruit, Germany: Kulturstiftung des Bundes.
- OSWALT, P. (Ed.). (2006). *Shrinking Cities. Volume 2*. Ostildern-Ruit, Germany: Kulturstiftung des Bundes.
- SORIANO, F. (2017). El museo de todos los museos. The museum of all museums. *ARQ*, (95), 96–105.
- SORIANO, F., & SANTACANA, A. (Eds.). (2011). Postproducciones. *Fisuras*, (16), 38–55.
- SORIANO, F., & URZÁIZ, P. (2014). *Grammati@als*. Madrid, Spain: Fisuras de la Cultura Contemporánea.

SULLIVAN, L. H. (1896). The Tall Office Building Artistically Considered. *Lippincott's Magazine*, (March), 403–408.

*Tisspas: taller para la innovación social y el desarrollo de servicios y productos arquitectónicos sostenible*. (2010). Murcia, Spain: Observatorio del Diseño y la Arquitectura.

WILSON, B. (2013). *La importancia del tenedor: historias, inventos y artilugios de la cocina*. Madrid, Spain: Turner.