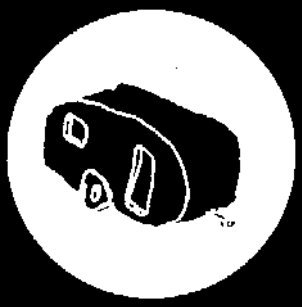
CONTEMPORARY VERNACULAR MATERIALS



CONTEMPORARY VERNACULAR MATERIALS

António Coxito

HOBBYECTS

made by you

The first version of this text was published in Artecapital, as **The contemporary vernacular**, in February 2014.

Later, it was part of the research **Architecture and autonomy, experimentation in periurbanity**[1].

[1] December 2015, University of Évora

MATTER

Between matter and material, Man introduced the culture of construction. The stone was cut into blocks, the blocks became walls or were distributed in vaults. The profiles (in wood or in other material) were straight and worked as pillars or beams and the ropes were catenaries. The culture of construction also depended on the availability of raw materials. This required a knowledge of matter and places.

From the industrial revolution and in successive *machine ages*[2] so far, the growth of the construction industry, of composite materials, of maritime containers[3] and of choice by catalog, turned the relation between matter, material and place secondary. The technology allowed to realize spans, forms and qualities of matter and of light without geographic limit.

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[2] Allusion to **Theory and Design in the First Machine Age** by Reyner Banham (1960), where the first age of the machine refers to the early 20th century technological development that led to the International Style of the 1930s-40s.

[3] Economist Paul Krugman on ship containers, published the article **The new railway age** (2013) where he stated: "But really, if you're interested in globalization, this should be of great interest: transportation technology matters, a lot; container shipping revolutionized the world."
The maritime container was patented in 1956 by Malcolm Mc Lean and revolutionized the global economy. In 2000 he was considered *Man Of The Century* by the *International Maritime Hall of Fame*.

Simultaneously in the periurbanity[4], we find those who resort to these new materials as if they were, again, matter, reassigning them new applications and altering the lexicon of construction; adding the *matter bottles* they build a wall, cutting the *matter automobile* they perform a cover.

Their difference in procedure in relation to the *bricoleur* lies in the fact that this individual is simultaneously an *engineer*. For all intents and purposes, he remains a *magician*[5].

Today, we realize the relative value that matter has acquired throughout the twentieth century. In Marcel Duchamp a word was enough to change the quality of the air[6]. All the *arte povera*, from Robert Rauschenberg to Antoni Tàpies, decontextualized the origin and destination of matter and materials. Frank Gehry, in 1977-78 in his own residence in Santa Monica, in a specific response to Los Angeles architecture, resorted to corrugated plates, metal nets and plywood, abandoning the History of Construction which referred to a different syntax for a dwelling[7].

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[4] On the outskirts of urbanity. However, it does not refer to a strictly geographical space since, unlike suburbanity, it is defined by internal, virtual and cultural relations. Particularly the virtual relations, deterritorialize these spaces.

[5] In **La pensée sauvage**, the dialectic of Claude Lévi-Strauss moves between the *bricoleur* and the *engineer.* According to him, magic precedes scientific reasoning but they are both autonomous forms of understanding the real.

[6] Reference to **Air de Paris**, ampoule with 50 cm^3 (1919).

[7] Beatriz Colomina referred to this project as "the house that built Gehry" in the catalog with the same name in the *Frank Gehry Architect* exhibition at the Solomon R. Guggenheim Museum in New York in 2001.

THE CONTEMPORARY VERNACULAR

This research refers to environments where the collection of materials tends to use those that are cheaper, easier to use and of local origin. However, it is considered here that this vernacular relationship with the materials and their use techniques has acquired new characteristics with contemporaneity.

Today, redundancy has left on the surface the materials already extracted, already transformed, often already used. The notion of raw material has changed. Now the elementary matter has become the atom and its use results in nanotechnology.

The most available, cheaper and most appropriable materials of the present are those with which are built the neighborhoods of *barracas*, *favelas*, *bidonvilles*, slums, *musseques* and shantytowns. Plates, formwork, cardboards, exposed brick.

One of the characteristics of the vernacular that has changed was, like many other habits, the ceasing to be specific of a place. Contemporary vernacular is now global.

Another change occurred in the fact that these materials have a mixed urban and transformed origin, and do not stick to their previous rural and natural lineage.

In the next chapter, the organization of the contemporary vernacular materials is proposed in five groups: *meta-materials*, hidden materials, industrial materials, packaging and materials *made ready to go*.

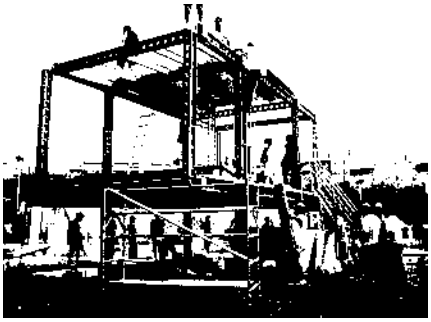
Meta-materials

The group of the *meta-materials* refers to those who support the conventional building of architecture but that abandon the work when it is accomplished. It encompasses scaffoldings and formwork but extends to the entire construction site and its ephemeral structures, including portable toilets and ladders.

They are found mainly in developed countries where they circulate in the junkyards sold by weight or in the used market. In London and Amsterdam squats they are applied differently than in industrial and agricultural sheds in southern Europe or Australia [i10.].

Santiago Cirugeda uses these materials systematically, namely scaffoldings, debris containers, formwork elements and road separators [i1.].

The *meta-materials* are still of conventional use in ephemeral architectures for cultural or entertainment purposes.



i1. Santiago Cirugeda, **Casa Pollo**, Barcelona (2005).
Use of *meta-materials*.

Hidden Materials

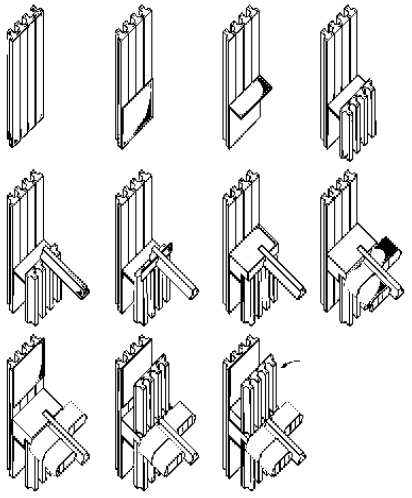
The group of the hidden materials refers to those that are part of the building but rarely show off, usually exclusively structural, such as concrete beams [i2.] or iron rods, as well as plumbing parts. The perforated bricks, when uncoated, are part of this group.

These are more frequent in Latin America and in southern Europe (Greece, Italy, Spain, Portugal). In Europe they are synonymous with unfinished. In Latin America, these are the *real materials* according to Sérgio Ferro. The coat hides the sweat of the worker that should never be hidden. This approach contains the political and ethical positioning that characterized some Brazilian architecture of this period[8].

Brutalism in Architecture, here in a continuity with the response to Modernism, represents a current that has also

[8] Sérgio Ferro, **Arquitetura e trabalho livre**, organized by Pedro Fiori Arantes (2006).

highlighted the hidden materials. From this line of reference we find Enric Miralles who, in Igualada's cemetery (1985-1994), left the irons and the reinforcement nets of the concrete in sight, revealing the bowels of architecture[9].



i2. António Coxito, **double wall with vertical concrete beams** (2010). Use of hidden materials.

[9] The **Georges Pompidou Center** (1977), by Renzo Piano and Richard Rogers, left the infrastructures visible, revealing what was conventionally hidden. However, this work is considered a *technological expressionism*, since there was a formal objective in the oversizing of ventilation infrastructures.

Industrial materials

Third, those that have become of conventional use by architects and designers in the city and in housing, but who have a rough and pragmatic origin and industrial purpose, such as corrugated sheets, hardware or cement in sight. These have already been referred to as *industrial vernacular* by various authors and in different scopes[10].

The presence of the materials of this group is transversal to all contemporary vernacular implantations, anywhere in the Globe. The rust on the plates and their organic conjugation give this blanket its most characteristic pattern [i11.].

In the outset of the use of these materials we find Le Corbusier. When he applied prefabricated aluminum windows to the *Clarté* building (1930) in Geneva, he was using materials for industrial purposes.

In the 21st century, Anne Lacaton and Jean Philippe Vassal resort to components of greenhouses that integrate in the building, as in the house *Latapie* (2000).

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[10] The *industrial vernacular* denomination is not new and has already been applied in different contexts. Robert Venturi, in **Learning from Las Vegas**, refers to the architecture of warehouses and factories further away from the strip as an *industrial vernacular*.

In addition, the case study houses of Craig Ellwood and Pierre Koenig and even the Eames House are also referred to as *industrial vernacular* by Reyner Banham in **Klarheit, Ehrlichkeit, Einfachkeit ... And Wit Too! The Case Study Houses in the World's Eyes**, where he writes "the Case Study houses of the steel-and-glass phase have contributed to the creation of a global *industrial vernacular*". [i3.]

Also called *industrial vernacular* are the North American dwellings with prefabricated wood components that flourished from the early 20th century from Buffalo. [i2.]

i3. **Shotgun houses**, Alabama, E. U.A. (1925). When shotgun houses (from the early 19th century in the southern USA) began to be built with prefabricated, industrially produced wood elements in the early 20th century, they were referred to as *industrial vernacular.*

i4. Pierre Koenig, **Bailey House** (1959). *Industrial vernacular* according to Reyner Banham. Here Banham did not refer to the origin of the materials or their context of application but to their "clarity, honesty, simplicity" (*Klarheit*, *Ehrlichkeit*, *Einfachkeit*).

Packaging

Packaging accounts for more than forty percent of the world's waste and is often recycled for construction. We refer not just to plastic bottles but to crates, to canvases, to the wrappings of industrial parts and to their usual support, the pallets.

The materials in this fourth group have very diverse appropriations, from the tents of the Gypsy european camps to recyclable trendy design, from the most unhealthy garbage collector districts of the coastal cities of the Philippines to those of the Gulf of Guinea.

In Portugal, the packaging of parts for the automotive industry are highly in demand for *ad-hoc* constructions such as agricultural sheds or shacks in the backyard.

Pallets are a material whose resource is already massified by architects, designers and *bricoleurs* from all latitudes.

A particular case of this group of packaging can be found in those whose size is enough to provide the shelter function. Its most paradigmatic example are the decommissioned ship containers. These packages are a surplus in countries with a higher volume of imports than exports by sea, as is the case of Europe and the USA. Their construction in *Corten* steel makes them highly efficient even after their decommissioning for transport purposes.

Ship containers, as an example of a *shelter material*, introduce legitimacy to the last group of contemporary vernacular materials.

Made ready to go

The caravans [i15.] are here considered materials because, although the act of construction has already been consummated, they are *in the place* of the materials.

Besides the apparent pleonasm, these are the most contemporary materials of nowadays because they combine the fact that they were only born in the twentieth century to the characteristic of being *all-in-one*.

Frederick Alcock produced the first car trailer house in 1914, although Wally Byam's *Airstream* of 1929 gained more media and market projection.

One can find these *made ready to go* in large permanent clusters in the North American trailer parks or in the campsites of Costa da Caparica.

i5. ***Made ready to go*** in the countryside. Tapada da Tojeira (2004).

Tents also take part of this fifth group.

Although they are not *ready made* they are *ready to go*.

The tents, for military, recreational or emergency purposes, belong to one of the oldest Histories of typologies of construction, with written references from the sixteenth century b.C. in the *Book of Genesis*[11] to the Ant Farm's *Inflatocookbook* (1971)[12].

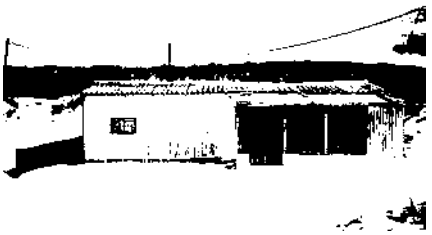
Today, they emerge and disappear in the most dramatic and disparate situations: in the refugee or natural catastrophe camps on the one hand, and in the *M15 movements* of Madrid, *Occupy Wall Street* of New York and

[11] First Book, both in the Catholic **Bible** and in the **Torah**. Its initial wording is attributed to Moses.

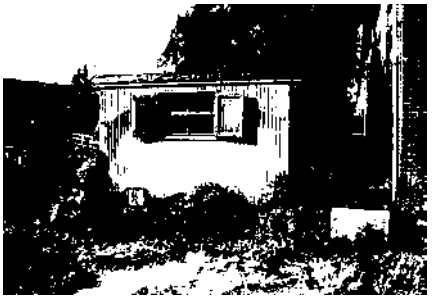
[12] This book was a reference among the *beatnick* communities of the 1970s in the USA.

in the *Umbrella Movement* of Hong Kong on the other. They are the resource of the most unstable, by constraint or by choice.

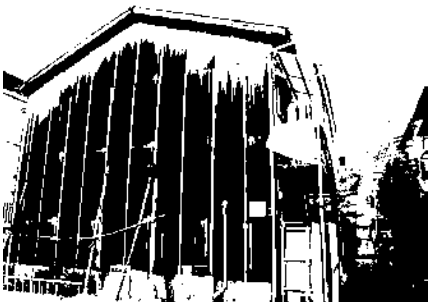
The materials *made ready to go* can still be found in escape situations, within the recent concept of vacations.



i6. **Atlantic contemporary vernacular**. Costa da Caparica. The fiber-cement roofs are forbiden in Portugal since 1994 and have been banned in the European Community since 2005, but this one has been maintained.



i7. **Contemporary vernacular in the center of Europe**. Allotment with eventual housing. Harbor of Loods Westerdok, Amsterdam, Netherlands.



i8. **Contemporary vernacular within the megapolis**. Slum of Tokyo.

i9. **Contemporary vernacular kitsch**. Restaurant *healthy modern mexican* in Ebisu, Tokyo, Japan. Corrugated plate in its splendor.

i10. **Contemporary vernacular for agricultural purposes**. Chicken house, New South Wales, Australia.

i11. **Rocinha**, Rio de Janeiro, Brazil.

OPPORTUNITIES FOR CONTEMPORARY VERNACULAR MATERIALS IN ARCHITECTURE AND SOCIETY

As a characteristic that implies the others, reference is made to the *unpunished* character of the contemporary vernacular materials in Architecture, following the meaning that Iñaki Ábalos and Juan Herreros attributed to the *unpunish* in the second micromanifesto of *Una nueva naturalidad*[13]. Although in Ábalos and Herreros the *impunity* refers to the open territory, they have in common the linguistic de-contextualization they provoke and the opportunity they raise due to the lack of regulation. They turn it into an open field of hypotheses.

[13] "Look at the wastelands of our peripheries, how in these vacant lands have been built almost all forms of socialization emerging, or precisely because they are deregulated territories." Iñaki Ábalos and Juan Herreros, **Una nueva naturalidad. (7 micromanifiestos)**, second micromanifesto, Descampados/Áreas de impunidad (1992).

The materials of the first group, the *meta-materials*, are particularly suitable for periurbanity:

For its durability, because they are not subject to programmed obsolescence.

For their price, because they are placed at a lower level of the market pyramid.

Because they have an endogenous and tested safety and they are prepared for a high mechanical wear.

By its self-supporting resistance, making the structural calculation expendable.

Because they have an essential design, following the vernacular traditions and the various tendencies of contemporary dispossession.

By presupposing an intelligible assembly, encouraging its appropriation for self-construction and functioning as a creative stimulus.

Because of its reversible potential, adapting to rural and seasonal programs and to an ever-changing society.

By making it possible to exploit legal interpretations (such as construction sites, agricultural structures and other legal entities), streamlining and making legalization of projects less expensive.

The generality of the contemporary vernacular materials can be easily found in junkyards and dumps, integrating recycling into the work process. They introduce in Architecture reflection and within the civil society the questioning of the productive processes through the appropriation of by-products and surpluses of the consumption. This consciousness has ethical bases and ecological outcomes.

Its resource turns the direct construction of the work by the architect and by close collaborators into a natural act, suggesting a solution for the excess of graduates and for the loss of the constructive quality when interposed merely by the project[14].

The integration of non-architects, when valuing their attributes, leads this process to play a social role[15].

The imperfection, the ambiguity and the uniqueness of each work, instead of making it unqualified in the light of a model, aim to paths of individual autonomy[16].

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[14] The architects of Plan B, in the **House in Arruda**, intervened physically in the construction of the work, along with the family on weekends. The constructive identity characteristic of this dwelling is that its walls have been executed in mud.

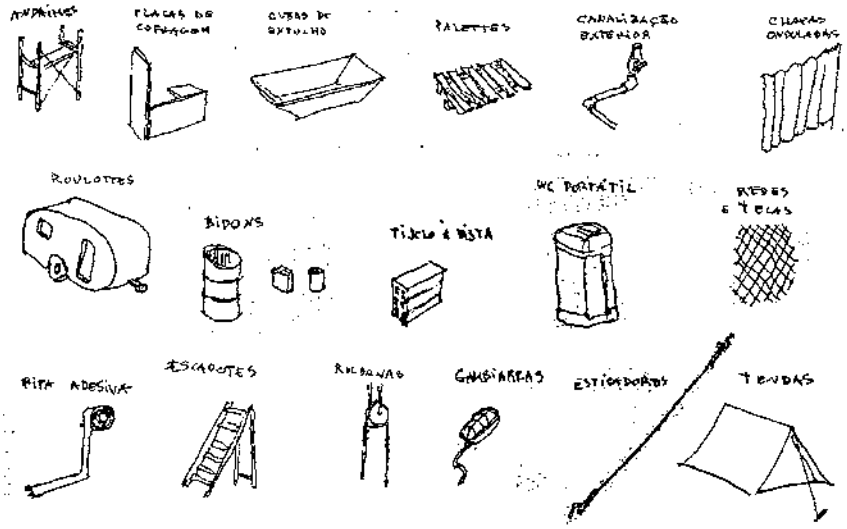
Nicolau da Costa, a landscape architect, fisherman, gardener and nature guide, introduced by João Soares in **A minha cabana** (2013), built his own house for which "friends have been summoned, not only in many days of work as in occasions of hard party and *aguardente de medronho*, and also in the preparation of the own project."

[15] António Coxito, **The social designer**, Artecapital (2013).

[16] The work of Terunobu Fujimori is paradigmatic of this reading. Taking care not to resort to contemporary Japanese culture, he builds the space of his fairy tales.

The incorporation of activism into the architectural discourse that, from politically incorrect gained a value of ethical intelligence[17], finds it space in praxis.

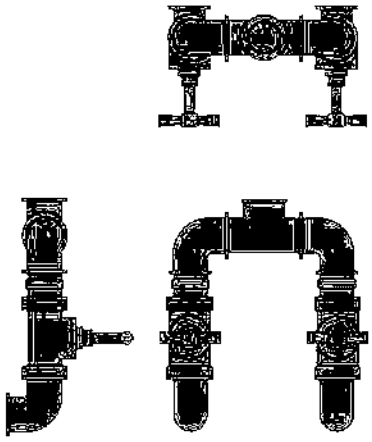
The manifesto, though unpractical by definition, retakes its opportunity[18].



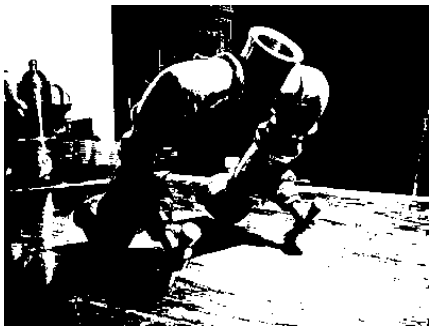
i12. **Contemporary vernacular materials**.
Meta-materials, hidden materials, industrial materials, packaging, *made ready to go*.

[17] Santiago Cirugeda is an example of what we refer to.

[18] Here we find the opportunity of another text published by HOBBYECTS, the **College of sound construction**.



i13.



i14. i15. **Industrial materials**
plain water mixer, brass, ¾ "
4 elbows, 2 stopcocks, 1 Tpipe, washers, linen waste
António Coxito, Lousan (2007).

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