# FRUITS OF BRICOLAGE

MSc3 Urban Architecture | Research Seminar

Martina Marone | 4924614

#### CHAPTER 1 THEORETICAL FRAMEWORK

#### CHAPTER 2 EXAMPLES OF BRICOLAGE

2a Japanese Street Fashion 2b Picasso 2c Everyday Life

**CHAPTER 3 MATERIAL REUSE** 3a The Technical 3b The Cultural

## INTRODUCTION

#### MY WAY OF DOING BRICOLAGE

MY GRANDFATHER'S CLOTHES

**BRICOLAGE VS SPOLIA** 













FRAMEWORK



## INTRODUCTION

## DEFINITION OF LEVI STRAUSS OFfrom an odd job man or a handyman.THE BRICOLEURFurthermore, the rationale behind to

From an odd job man or a handyman. Furthermore, the rationale behind the analysis of the meaning of "bricolage" can be found in its analogy to the mythological thought. In fact, Levi-Strauss describes the latter as a type of an intellectual "bricolage", in which there is a limited but heterogeneous repertoire at disposal. Subsequently, he presents a practical example about a bricoleur working on a project: he has to firstly turn back to an already existent set of tools and materials, to consider and reconsider its content so as to index possible answers which the whole set can offer to his problem. He examines all the heterogeneous objects composing his treasury to discover what each of them could "signify", and thus contribute to a set not yet materialized, but which will ultimately differ from the instrumental one only in the internal disposition of its parts.

Yet, the possibilities always remain limited by the particular history of each piece and by those of its features that are already determined by its originally intended use or the modifications it has undergone for other purposes. The elements which the "bricoleur" collects and uses are "pre-constrained", and this illustrates the difference between him and an engineer, a figure representing mostly the "scientific mind". An engineer is always trying to make his way out and go beyond the constraints imposed by a particular state of civilization, while the "bricoleur" by inclination, or in some case by necessity, remains and operates within them. In a sense, it could be stated that the bricoleur, being the "savage mind", combines pre-existing things in new ways, attempting to make the most of the objects that has in his possession, or as Levi-Strauss points out, the "bricoleur" makes use of signs, already in existence, for purposes that they were originally not meant for.

#### **BRICOLAGE VS STABLE SYSTEMS**

Jacques Derrida, in Structure Sign and Play criticizes Levi-Strauss' conception of the engineer's totalizing narrative, arguing that it is impossible for someone to be the "absolute origin of his own discourse". Thus, he remarks that the engineer is a myth created by the bricoleur, because the bricoleur would not be as exciting and inventive if the engineer was not so dreary and unimaginative, and believes that as soon as the belief in such an engineer seizes to exist, it will be seen that every discourse is bounded by a certain bricolage. The latter does not worry about the coherence of the words or the ideas that he uses, rather he perceives their meaning not as something eternal and immutable, but as something provisional, and shifting.

In the premises of this discourse, Derrida contrasts a bricoleur to an engineer. The engineer designs buildings which need to be solid aiming in creating a stable system or nothing at all. Derrida talks about the engineer as the person who sees himself as the center of his own discourse, the origin of his own language. The idea of bricolage produces a new way to talk and think about systems and structures without falling into the trap of trying to build a new stable system out of the ruins of a deconstructed one. It provides a way to think without establishing a new center, a privileged reference, a truth. It inspires creativity and originality, offering new ways of putting things together. Moreover, all systems fall on

#### **BRICOLAGE MEANS DIVERSITY** AND UNITY

conceives between Lèvi-Strauss' con- SAME MATERIALS I NEW STRUCTUgives rise to the following concept: what **OF RESTORATION** 

## **RES I NEW MEANINGS: PROMISE**

[946]. In fact, Lévi-Strauss compares BRICOLAGE: THE PROCESS

Friedman. Friedman's eclectic range of drawings, photographs, and sculptures are structured upon the bric-a-brac that he finds lying around, the ordinary stuff of everyday life. From an entire pencil carefully sharpened into one long, fragile shaving, to a boiled box of spaghetti hardened into a frangible object oscillating between abstract gestural tangle and rigorous scientific model, Friedman transforms ordinary materials and mundane activities to exaggerated ends [69]. While Friedman does not utilize junk or disposable materials, his works do address the ruined conditions under which the object currently operates. A robust technique of recycling lies in the center of a significant number of Friedman's works, as a circuit of trades where the remaining leftovers of one work provide the structure blocks to produce another, reminding more of a procedure of managing rather than of restoration. [70]

#### BRICOLAGE VS SCIENTIFIC THOUGHT

Levi-Strauss (1962) utilizes bricolage to

distinction between bricolage and scientific thought. This direction is also leveraged nowadays, since Science and Technology Studies and Actor-Network Theory (ANT) have re-imported 'bricolage' and tinkering into the very heart of technological practice. Rapport and Overing (2014) refer to bricolage as the assembling of different cultural forms to develop and make something new or increasingly fit for a particular reason. Furthermore, in the extensive field of entrepreneurial bricolage the definition of "making do by applying combinations of the resources at hand to new problems and opportunities" (Baker and Nelson, 2005: 333) prevails Ip 6-71

Since its original conception, bricolage has been applied in various areas and to an assortment of phenomena, ranging from sociological ethnography and qualitative methodologies, like women's studies, interpersonal relationships, subculture studies and popular culture, to complex information systems design, explanations of the formative processes in teaching, law making (Hull, 1991, evolutionary genetics, and economics. In the field of entrepreneurship, bricolage has been utilized to illustrate the idea of market creation and nascent firm development, while in the innovation literature, bricolage depicts how robust designs can be developed in nondeterministic environments.

From these examples it can be easily seen that various subjects rise up out of the literature on bricolage, which are highly relevant to the development of a new concept of welfare bricolage. These subjects can be summarized as resources, knowledges, and experimentation and innovation. Focusing on resources, it can be seen that no matter the application domain, bricolage is frequently connected with a response or a solution to a lack of resources, offering a way of overcoming challenges and turning them into opportunities. A distinction between bricolage as a process of mobilizing resources and overcoming

limitations and the role of the bricoleur as the mediator between different kinds of resources can be made, yet independently of which of these two views is used, it is clear that bricolage involvescreativityexpressed through the attempt of discovering under-utilized or hidden resources or recombining existing ones to towards the needs of a challenge. Nevertheless, it should be pointed out that bricolage might be used also in situations where there are sufficient resources, as a creative alternative or addition to mainstream approaches.[12]

#### **BRICOLAGE AS A STRATEGY**

The adoption of methodological bricolage is a necessity in design research due to the indeterminate nature of design. The activity of re-appropriating and consolidating components into new and unique structures, to which bricolage is inherently related, intently mirrors the exercises of a designer. Despite the fact that Levi-Strauss, in his work The Savage Mind ,presented the idea of bricolage as a method of acquiring information by contrasting the Engineer (the scientific mind) to the Bricoleur (the savage mind) to illustrate two different modes of knowledge acquisition (3), it was Denzin and Lincoln's [23] articulation of it within a methodological context that provided insight into new forms of rigour and complexity in social research. Bricolage

is a valuable and important concept for design researchers, as it enables them to not only develop established strategies, but also to come up with new methods to address problems that are beyond the scope of the established discipline. Under the scope of methodological bricolage, the bricoleur perceives research methods actively, rather than passively, meaning that the researcher actively develops methods with tools at hand rather than accepting pre-existing methodologies [26] (3).

The architect-artist makes bricolage a productive social force. Bricolage becomes a tool that is used by the architect-artist to disarm the discursive machinery of modern architecture. The use of bricolage as a strategy against modernity is the calling card of a critical practitioner. According to Rowe and Koetter, bricolage is grounded in the history of architecture—in imperial Roman architecture—which they perceive as "the accumulation of setpieces in collision." With examples like Hadrian's Villa or Rome itself, Rowe and Koetter introduce a significant observation pivotal to the understanding of bricolage: the notion of creative activity as a temporally extended event. Historical works "built by several people and different times" demonstrate a practice opposing the structured rationality of a scientific insistence on totality and completeness. For Rowe and Koetter, bricolage in architecture obtains the form of an event, more temporal than material, appealing solely as a figure or tool against the modernist indictment of history, and not as a practice that questions architecture or the figure of the architect him- or herself. (88)

BRICOLAGE: EXAMPLES

What is Japanese Street Fashion, where does it come from and what are the misconceptions?

It consists of the Western viewpoint of what japan actually is, but to completely understand it one must pick apart its layers.

In Japan they take the western lifestyles all at one time, so everything wenormally It comes from an amalgamation or things, a mixture of things, but there is a respect for what's already been there, for the original taste of things

There are different outcomes that Japanese Street Style culture can provide in terms of definition of ways of adopting bricolage: ENTROPY VS UNIFORMITY: the ones that are characterized by so many layers that the single pieces are not recognizable anymore, but only the overall.

## EXAMPLE 1

JAPANESE STREET FASHION



They piece











There is a love available,





#### 1. CHANGE OF MEANING/USE









Variation of the















#### PIECE 2 | PANFLUTE



#### FORMER FUNCTIO

Panflute| This object was previously used as an instrument, to be traditionally played

Accessory| The function is now merely aesthetical, it becomes something like a necklace to be worn

# FROM DISCARDED SHIPPING CONTAINERS TO BRICOLAGE WORK FOR FACADE





#### **CORRELATION BETWEEN THE TWO:**

THE IDENTITY OF THE FORMER FUNCTION OF THE OBJECT IS SOMEHOW STILL PRESERVED, ALLOWING THE IDENTIFICATION OF WHAT THE ELEMENT WAS BEFORE.

> HE FLUTE AND SHIPPING CON IDENTIFIABLE

THE PIECES OF TAINERS ARE STILL THERE

## 2.BRICOLAGE: COMBINING AND CHANGE OF USE



OBJECT 1 | BANDANA















OBJECT 2 | CLOTH



























## OBJECT 3 | TROUSERS









































#### 3. WAYS OF COMBINING



#### 3. WAYS OF COMBINING

Ways of composing, sewing, stitching, cutting, pinning, wrapping, gluing, and many other techniques





#### 3. WAYS OF COMBINING

LOOSE



















If one puts in comparison the figure of the **EXPERIENCE** 

#### EXAMPLE 2

**PABLO PICASSO:** THE BRICOLEUR MASTER

#### poor and melancholic subjects.

Starting from 1905, his color palette suddenly changes character, and more tepid colors, towards pink, ochre and orange, take over. This is the second important moment of his artistic maturation, the so called "Pink period". This phase, of intense production but brief duration, will be concluded in 1906 and it constistutes the logic continuation of the previous one. In terms of subjects painted, while in the blue period the characters were the exploited and the marginalized, in the pink one the main focus is towards the people of the circus and tumblers.

The last months of 1906 mark the socalled "African period", during which during which Picasso took an in-depth interest in the African and Polynesian ritual sculpture, which the flourishing trade with the colonies contributed to spread in many Parisian intellectual environments. In these works, which are often naive but of great expressiveness, he searches for the testimonies of a spontaneous and incorrupt humanity, not yet contaminated by too much ideology and social and cultural conditioning of Western tradition. The formal contiguity with some African prototypes, of which Picasso himself was an attentive collector, is evident in many of his studies of those years, in which the vertical stretching of the face and the breakdown of volumes prelude directly to the next Cubist turn. Finally, in 1907, the artist exhibited Les demoiselles d'Avignon, the work considered as the undisputed founder of the Cubist movement. To the analytical phase (1909-1911), during which the paintings of Picasso and Braque, voluntarily unsigned, are often indistinguishable, follows the synthetic one (1912-1913), during which the differences of style of the two artists become evident. This is the most intense and happy period of Picasso's Cubism. Colors have become bright and the surfaces perfectly flat. Furthermore, the use of collage gives each composition a new and provocative meaning. Experience: the colors of the blue and pink period belong to one of the most influential aspects of Picasso's later work Although the several experimentations and variations he always makes with colors, these are recurring aspects that can be found in his palette through his body of work.





The fruit of this variegated background can be embodied in the previously mentioned manifesto of the Cubism Les demoiselles d'Avignon.

In the autumn of 1906 Picasso appointed to work on a large-sized painting, corrected, deleted, repainted and repainted innumerable times, he will finally see the light only towards the end of the following year. Starting from Cézanne's solid volumes, Picasso simplifies the geometry of bodies (which represent five prostitutes in a brothel) which also involves in this simplification the element of space. While in the realization of the faces of the central figures Picasso is inspired by the Iberian sculpture, those of the two figures on the right are subjected by the influence of the ritual masks of Africa.

In this case all the rules of perspective are distorted, but also those of common sense. However, the apparent inconsistencies are aimed at a new and different perception of reality. No longer visual, as it had always been until then, but mental: that is, aimed at representing all that there is and not just what is seen. In this sense it should therefore not surprise us if we see two r more sides of a character at the same me: it is as if we turned around and then ied to reconstruct the various views by uperimposing them on each other.



























AFRICAN PERIOD

COLORS AND SUBJECTS: PINK AND BLUE PERIOD



#### TIME, THE FOURTH DIMENSION

our eye by imitating reality, nor, as the impressionists did, trying to interpret its suggestions. They, besides, strive to build a new and different reality that is not recessively similar to the one we all know, even if it is parallel to it.

Let's imagine for example a cube, one of the simplest and most well-known geometric solids. In any perspective view it will show us at most only three of its six faces which, despite being square, will appear as irregular parallelograms. The non-vertical edges, moreover, which in reality we always know to be equal and parallel, will instead be unequal and convergent. Despite everything, however, the vision of this cube we recognize as perfectly plausible. This time it is the development in plane of the previous solid. It has the six perfectly square and equal faces, with edges that are always perpendicular to each other Not only: if we cut the cube so developed and fold the long faces the adjacent edges gluing them along the remaining ones would give us a three-dimensional construction of the cube.

The latter is much more true than the previous one, even if much less similar.

Moreover, since in order to take different points of view one needs to move, and in order to move one takes time, the emporal variable enters in some way into the process of artistic production, illowing one to simultaneously represent different moments of the same scene. The very name of the movement derives from the Cubist use of breaking down reality into elementary floors and rolumes (similar to cubes, in fact).



















ANALYTIC

RECALL OF PREVIOUS

RECOGNITION OF SINGLE PIECES





NO CONNECTION WITH ORIGINAL PIECES ANYMORE

FULL COHESION

ABTSTRACTION

## SYNTHETIC



RECALL OF PREVIOUS SINGLE MEANINGS

RECOGNITION OF SINGLE PIECES





ANALYTIC







#### ABTSTRACTION

#### **FULL COHESION**

NO CONNECTION WITH ORIGINAL PIECES ANYMORE

## SYNTHETIC

#### FRAGMENTATION

the movement, when the association between Braque and Picasso becomes so intense that the respective works are even indivisible, begins some time later, around 1909. It is the moment of the so-called Analytical Cubism, consisting in breaking down the simple objects of everyday experience (bottles, glasses, pipes, musical instruments, playing cards ...) according to the main planes that compose them. These planes, variously rotated, stuck and overlapped, are then extended and reassembled on the canvas in a conceptual way analogous to how it was observed in the cube.

The colors used in these operations are usually earthy and neutral in tone, so as not to interfere with the understanding of the forms.

Between 1912 and 1913, Braque and Picasso directed their research towards a reconstruction of objects previously fragmented into new and often fantastic objects that, while maintaining some analogy with the original ones, live an autonomous reality of their own, characterized also by the use of bright and deliberately anti-naturalistic colors,

#### he unlikely.

We are thus in the phase of «Synthetic Cubism», in which the innovative equivalence between painting and hature, of which Picasso and Braque claimed revolutionary originality: at his point, in fact, the artist manages o create forms and situations that no onger have any relationship with those hat are already known, even though hey sometimes retain some distinctive eatures and in some always well ecognizable way.



















EXAMPLE 3

EVERYDAY LIFE

#### MATERIAL REUSE: THE AESTHETIC ELEMENT

CORRESPONDANCE WITH AESTHETIC OF THE SECOND HAND MATERIAL











R E M I N I S C I N G OF FORMER MANIFESTATIONS | FORMER SECOND HAND SHOP BECAME A RESTAURANT: TO RECALL THE PREVIOUS IDENTITY OF THE PLACE SOME OF THE FRAMES HAVE BEEN KEPT





#### MATERIAL ADAPTATION

LIVING AS A STUDENT THERE ARE SOME SITUATIONS IN WHICH ONE NEEDS TO ADAPT: INSTEAD OF BUYING A BEDSIDE TABLE I TOOK SOME BOXES TO SUBSTITUTE IT

AT HOME: WHEN SHEETS ARE RUINED OR TOO OLD , I CUT THEM IN PIECES AND USE THEM AS CLEANING CLOTHS









MATERIAL REUSE

INTRODUCTION

THE TEC

#### INICAL

## Material Reuse | When the goal is also the design tool

#### WHAT | THE GOAL

Learn how to build with the highest possible use of second hand construction material

#### **HOW | THE PROCESS**

Investigation of the main construction material flows and movements in Brussels

Analysis of the traditional and most common contrusction methods to facilitate the understanding of material reuse

Research of the process from initia product - before demolition- to fina product-ready to ready to install

#### Material choice

-OPALIS: online database of major resellers of second hand construction elements in Belgium

-Reuse of demolished buildings from the site and from future projects of the area and of Brussels Combination of study at a technical level /S the impact of the user (perception of he materials, language and aesthetic)

#### CHALLENGES

"Reality Check": adaption to physical availability and dimensioning/ calculations How to proceed and researchable precision: reliability on precedents and practitioners Adaption to irregularity of the site. Idea of entropy that overall worksas a whole: diversity VS unity

#### Elements to take in consideration

Performance Issues Cost implications Supply VS Demand



Reverse design

#### Final Produ

#### POTENTIALS

"Reality Check": creativity with constraints Bricoleur's perspective for material handling and design possibilities: existing VS new

#### **CONSTRUCTION MATERIAL FLOWS**

The construction sector produces 628,000 tonnes of waste per year. 91% of this waste is sent for recycling, after sorting on site or in a sorting center. It is mainly inert waste, recycled and used in road or building foundations (downcycling), but also metals and wood.

## 528,000

tonnes of waste generated by the construction sector

#### IDU nillion tonnes f potential esources on

91%

waste sent ainly for cycling and owncycling ore than **/ / 70** of the region's incoming and outgoing flows in inert materials



CONSTRUCTION=TRASFORMATION









## CONSTRUCTION VS DEMOLITION | ROUTES FOR DEMOLITION MATERIALS

The various projects reveal several strategies of how to deal with these issues. In general, it is useful if material identification occurs at the project start or initial design phases.

Any reclaimed material chosen should be carefully evaluated for its refurbishment



needs, and the time associated with that process should be factored into the overall project timeline.

This information as well as details concerning selection, storage, and installation processes should be turned in the project's material specifications.

THE CUL

**URAL** 













FIRST HINTS: POSSIBILITIES OF MATERIAL REUSE



#### HOW CAN DISCARDED MATERIALS BE COMPOSED TOGETHER?

LOOSE

TIGHT

#### **3. WAYS OF COMBINING**



тіднт

#### MATERIAL REUSE: HOW EXACTLY DOES IT WORK?

#### MAIN POINTS ON SECOND HAND CONSTRUCTION

a. Large structural components (beams and columns) are often readily available from salvage. The engineering consultant will know exactly what span and size is needed for beams, joists and columns (if new), and can easily perfom substitute calculations for reused structura components.

\* b. Next, landscaping, interior partitions and exterior envelope elements are considered.

\* c. Finally, the focus shifts to finishes, architectural details historical details, hardware, furniture and fit-out. 1. 1. Can materials be modified in dimension for reuse? For example, can a 50 × 200 mm (2" × 8") timber be ripped into two 50 × 100 mm (2" × 4") timbers and use on site?
2. 2. Can materials be modified in form (back to base composition or fibre) and be reused? For example, can scrap wood be mulched and used in landscaping or can concrete be crushed and used as fill?
\* Can a new item be replaced with a reclaimed similar item from the marketplace (economically)?

Can a new item
 be replaced with an
 equal but different type
 of reclaimed material from the
 marketplace? For example, can

a new steel column be replaced with a reclaimed wood column that can structurally do the same iob and is available?

\*• When it is necessary to purchase a new material does its composition contain a high recycled content?

\*• When required to purchase new material can that material be deconstructed and reused or recycled at end of the building's life?

On a practical level the best advantage is in structural materials. These include steel and timber beams, joists, columns, cast iron columns, brick and face stone. Under the guidance of a skilled and creative structural engineer these reclaimed materials can be intermixed and swapped to suit the project.

#### COST IMPLICATIONS

It is a common misconception that reclaimed materials increases costs. reused materials reduced the overall costs even when additional labour was considered. Important to do:flexible and communicative design team and careful budgeting.

Durability is achieved in the same fashion as new. The organic and manufactured characteristics of the components are generally no different, whether they are new or reclaimed.

-Old steel has to perform the

#### same as new steel. -Old or first growth timber can actually be better than the grading of today, but regardless must perform as new

A rule of thumb used for timber is that reclaimed should be one grade and one dimension greater than new for the same performance.

#### LANGUAGE/AESTHETIC

Typically, problems with design and satisfying clients are related to the visual aesthetics of reclaimed materials, making them look contemporary and up to date.

STRATEGY: urban metabolism studies, material flow analysis, and its own tools, called a harvest map t includes information on available and soon-to-be-waste materials nearby and connects potential buyers with suppliers

Since the material costs are often low, it may be acceptable to use more material than if a new material were used; for example, employing larger components when a structure uses old steel with less defined characteristics.

so the structural consultant assumed the worst type of stee specification when calculating the structural integrity of the building. Most likely its real performance is better, but for safety reasons the worst case was assumed.

Some materials may perform

better when they are older. For example, wood over fifty years old will often stay straight and hardly warp.

#### **CODES AND STANDARDS**

One of the major concerns about reuse revolves around their performance and acceptability for code compliance. However, codes and standards are often not an barrier, although they can lead to more work to demonstrate compliance, sometimes requiring alternative compliance paths.

The cost to dump these materials is more expensive than to give it to these companies like Rotor ( maybe list?)



#### **BIBLIOGRAPHY**

C. Levi-Strauss, The Savage Mind, Weidenfeld and Nicolson Ltd, 1966, p.16-19

https://literariness.org/2016/03/21/claude-levi-strauss-concept-of-bricolage/

Levi, Jerome M. "Structuralism and Kabbalah: Sciences of Mysticism or Mystifications of Science?." Anthropological Quarterly (2009): 929-984.

Applin, Jo. "Bric-a-brac: The everyday work of Tom Friedman." Art Journal 67.1 (2008): 68-81.

Phillimore, Jenny, et al. Bricolage: potential as a conceptual tool for understanding access to welfare in superdiverse neighbourhoods. IRiS Working Paper Series 14. Birmingham: Institute for Research into Superdiversity, University of Birmingham. Online: https://www. birmingham. ac. uk/Documents/college-social-sciences/ social-po...(accessed: 27 April 2018), 2016.

Yee, Joyce, and Craig Bremner. "Methodological bricolage: What does it tell us about design?." (2011).

> M.Gorgolewski, Resource Salvation, Wiley-Blackwell, 2017

Liliane Wong, Adaptive REUSE: extending the Lives of Buildings, Birkhäuser Basel, 2017

Colin Rowe | Fred Koetter, Collage City, Birkhäuser Verlag (Basel, Boston, Stuttgard), 1984, Chapter 5: Collision city and the politics of "bricolage", p.123

Karen A Frank, Architecture Timed: designing with time in mind, Architectural Design, 2016

Lida Kalakoski and Satu Huuhka, Spolia revisited and extended: The potential for contemporary architecture, Journal of Material Culture | Tampere University of Technology (Finland), 2018