The Archive in Contemporary Architectural Design Practice and Buildings as Historical-Cultural Repositories

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This article reviews contemporary innovations in creative practices in architecture and design by Rotor, reflected through both the medium of the architectural archive and the deliberate strategy of off-site reuse of building materials. To illustrate these innovative techniques and practices, two projects by Rotor will be examined as case studies.

El archivo en la práctica del diseño arquitectónico contemporáneo y los edificios como repositorios histórico-culturales. Este artículo revisa las innovaciones contemporáneas de Rotor en las prácticas creativas de la arquitectura y el diseño, mismas que se reflejan tanto en el medio del archivo arquitectónico como en la estrategia deliberada de la reutilización de materiales de construcción fuera del sitio. Dos proyectos de Rotor servirán de casos de estudio para ilustrar estas técnicas y prácticas innovadoras.

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Palabras clave
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práctica de diseño
reutilización
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Rotor is a non-profit cooperative architecture design practice based in Brussels that represents a new architectural approach in which various disciplines –from research and exhibition-making to material studies and reuse strategies– are combined to serve off-site reuse purposes. Transcending the disciplinary limits of architecture, this new architecture practiced by Rotor undertakes research and design work in response to industrial production, consumption and waste fabrication.

Construction requires materials that do not necessarily have to be new. Off-site reuse in architecture is a practice that entails salvaging components and materials from buildings that have reached their end-of-life cycle and then putting these "waste" material to use in a different situation or application. Off-site reuse as a design approach is not commonly applied in architectural education and practice.

In general architectural practice, the customary thinking about the utilization of building materials usually entails the design of "new objects" and the procurement of novel materials specified and ordered from various product catalogs. As a counterpoint to this new-material procurement approach, Rotor developed guidelines or protocols and regulatory work for the reclamation of reusable "waste" materials for new building processes.

Rotor seeks to dissect and redesign the material economy and its underlying (legal and procedural) conditions. In 2015, for example, Rotor developed a *vade mecum* for off-site reuse –a model of legal and practical guidelines for the reclamation of reusable materials from public buildings in Belgium. They have also worked on policies aimed at reintroducing salvaged building material into the construction process for buildings within the European market. The target audience for this policy work is the European Union Commission (EUC), which is the regulatory authority for waste legislation and procurement rules for public tenders in Europe.

In 2013, Rotor conducted a national survey of existing secondhand building material dealers in Belgium, France and the Netherlands. This survey revealed the lack of firms working with large-scale industrial materials. Accordingly, Rotor Deconstruction Consulting (a spinoff project of Rotor) was established to serve as an "archive" for materials and building structures for design activities. The archival activities carried out by Rotor include many practices in the visual arts,[1] such as collecting, selecting, curating, arranging, creating and connecting. Its methods and processes of categorizing, cataloging and archiving bring objects, people and practices together under the broader framework of sustainable architecture.

Art and design historians have considered the significance of the archive not only as a body of raw research material, but also as an arena for the consideration of philosophical questions about its nature and meaning. As boundaries blur between disciplines and professions, archives are no longer the primary domain of the archivist and the art or architectural historian.

Rather, archival practice has experienced particularly creative explorations pertaining to "archiving" in visual arts and design.[2]

In the 2004 essay "An Archival Impulse",[3] the art historian Hal Foster discussed some characteristics of contemporary art practices that might constitute an "archival tendency." Besides those attributed to the professional work of the archivist, the phrase "archival tendency" or "archival impulse" has acquired other meanings pertaining to art or architectural practices that, in some way, take archival forms or use archival materials or modes of presentation.

Case 1: Behind the Green Door, Exhibiting an Inventory of 600 Objects to Map an Archeology of the Present Discourse of Sustainable Architecture

In the case of the work done by Rotor, "archival practice" represents design that is a contemporary work-in-progress and that creates something new. A good example is the exhibition that Rotor curated for the Oslo Architecture Triennale in 2014, titled *Behind the Green Door: A Critical Look at Sustainable Architecture through 600 Objects*.[4]

The "archival work" at issue here is not a systematic database. Rather, it is defiant material, fragmentary rather than fungible, and as such calls out for interpretation, retrieved in a gesture of alternative knowledge or countermemory. Rotor's intent was to initiate projects that would carry out "archival work" as part of their development – so as to link research and creative design work to the context of sustainable architecture and the built environment.

1 Christian Boltanski, *Inventory of Objects Belonging to a Young Man of Oxford* (1973), or *Altar to the Chases High School* (1986-1987).
2 Christian Boltanski, *No Man's Land*, Park Avenue Armory, New York, 2010.
3 Hal Foster, "An Archival Impulse," *October* 110 (Autumn, 2004): 3-22.
4 "We understand 'object,' as mentioned in the title of the book, in the broadest sense of the term. Physical objects, such as samples, prototypes, models and original sketches, alternate with digital ones: photographs, digital renderings, and films." In Lionel Devlieger, Rotor, "Note from the editor," in *Behind the Green Door: A Critical Look at Sustainable Architecture through 600 Objects* (Oslo: Oslo Architecture Triennale, 2014), 4.

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Lionel Devlieger, a Rotor cofounder, explains the curatorial aspects of the Oslo project, noting that: "To build our collection we first looked at a broad variety of building projects that claimed, in some way or another to be sustainable. Rather than starting from our own assumptions as to what constitutes sustainability, then finding good examples to illustrate our point, we chose to document what others called sustainable".[5]

Thus, Devlieger asserts that Rotor's curatorial and design work is a form of "archival practice" for the purpose of creating ideas, interpretations and creative work, not for making enormous encyclopedias of events and notions. For Rotor, the archive plays a constitutive role not merely as documentation, but also as a sort of potential discourse that aims to inspire a radical redesign of the discipline.

Devlieger adds that: "We looked instead for objects that will intrigue, reveal, or spark good conversation, on topics directly related to our subject [sustainable architecture]. We appraised potential exhibits for their capacity to document the reality of their practical application. We see and present them as source materials. These are objects of study. This is a body of evidence".[6]

Thus Rotor speaks of their archival method for exhibitions and design projects as "collecting a body of evidence that is a successful mapping of the discrepancies that exist with regard to the perceived real nature of sustainability in architecture and the building trades".[7] Rotor's intent was to initiate projects that would carry out "archival work" as part of their design and (building) development practice, so as to link research and design work to the notion of sustainability.

Rotor sought to employ the curatorial idea of *Behind the Green Door* to compose the exhibition and publication as archival work to showcase the debate that is currently taking place around the issue of sustainability in architecture. A particular emphasis was placed on paradoxes, logical dead-ends and pitfalls or fault lines, as well as on underexplored trails, minority opinions and, perhaps, some new countercultural elements.

Case 2: *Usus/Usures* – The Architectural Exhibition as Archival Practice and Educational Environment for Reuse Strategies

Rotor's body of work seeks to advocate a new, different understanding of the role of the architect in terms of the way that materials are utilized or set aside and reused in the building profession. In this envisaged new role, the architect does not have to passively accept the traditional or conventional use and waste of material. Rather, the architect could play a critical, constructive role in the proactive selection and procurement of the material utilized and the architect could act as a social catalyst against the waste of materials that could be recycled and reused in the building or construction process.

Rotor's work explores the notion of wear and tear as it relates to the use of materials, objects and building structures. Rotor focuses on modernist and contemporary buildings slated for demolition in order to reuse their materials or "waste" components for innovative redesign.[8]

Materials are essential to this new paradigm. Indeed, the role that material selection plays in the crafting of buildings and the environment is no less significant than that of

5 Lionel Devlieger, "Note from the editor", 4.
6 Lionel Devlieger, "Note from the editor", 5.
7 Lionel Devlieger, "Note from the editor", 7.
8 Lionel Devlieger, *Deconstruction: An International Symposium on Off-Site Reuse in Architecture*, Faculty of Architecture and the Built Environment, TU Delft, April 24-25, 2017, 7–12, accessed September 7, 2020.

Rotor: *Usus/Usures*, Acrylic fiber carpet, staircase, railing, Belgian Pavilion, Venice Biennale 2010
Rotor: *Usus/Usures*, Acrylic fiber carpet in a living room adjacent to an entryway, a hallway, a bedroom and a kitchen, Belgian Pavilion, Venice Biennale 2010
Rotor: *Usus/Usures*, staircase, Belgium Pavilion, Venice Biennale 2010
Photos: Eric Mairiaux

architects and designers. The Rotor perspective suggests that we should pay careful attention not only to their aesthetic aspects, but also their sociocultural and environmental dimensions. Rotor seeks to understand the connection of materials to socioeconomic processes and relationships and these connections to material traces, from sourcing to eventual use, contain and offer illuminative socioeconomic and political information.

From the Rotor perspective, creative practices should operate in an arena that is shaped by the functionalities and aesthetics of the material, as well as by the material's socioeconomic and cultural considerations. The point is that materials and material practices are connected to nonmaterial social dimensions or considerations.

For example, we usually assume that gypsum board (used as a wall and ceiling finish) is a universally standardized and neutral material. But, as Rotor reminds us, gypsum today is primarily a byproduct of the energy production process. Sulfur dioxide is generated as a byproduct of coal and oil-burning industrial processes that contribute to acid rain. It has therefore become a common industrial and environmental practice to filter out this harmful gas with calcium oxide and, through this process, gypsum is produced. Thus, in choosing to use gypsum as a building material or input, it would be helpful to be aware of the material's social connections and externalities.[9]

Rotor is interested in material flows in industry and construction, particularly in relation to resources (waste, use and reuse). They deconstruct buildings into elements (construction, materials) and reassemble them in new ways. This is an approach that values materials and knowledge from past practices of crafting buildings and interiors for reassembly.

The Rotor preoccupation with off-site reuse is intended to question the standard use of demolition as a way to create a tabula rasa for new building projects. Rotor seeks to save condemned or "waste" materials while introducing a conservational social perspective into the architectural design process. Their architectural practice involves building resources and their reuse in ways that challenge the historical and cultural conceptualization of buildings, as well as their heritage and social value.

This distinct interdisciplinary approach –which can be described as deconstruction, relocation and assemblage– was at the center of the Rotor exhibition *Usus/Usures* at the 2010 Venice Biennale's Belgian Pavilion. At this international architectural exhibition, they displayed mundane materials and products salvaged from Belgian social housing projects as abstract art.

The selection and framing of used materials and architectural elements from a social housing complex is not a purely aesthetic or neutral act, but points to the growing problem of the unavailability of low-income housing in Belgium and other Western countries.

Usus/Usures was entirely made from salvaged building components that are usually overlooked and treated as 'waste' (deconstruction), such as carpeting, stairs, railings, etc. These were then exhibited in a reassembled manner (assemblage) in the Belgian Pavilion at the Venice Biennale (relocation).

In normal architectural practice, thinking about materials means the design of "new objects". With Rotor's new approach, however, there is an entirely different process, thinking of materials as something physical and tangible to be identified and transport-

9 Maarten Gielen, "Rotor Deconstruction". CCA (February 11, 2016), CCAchannel, Youtube, video 1:28:54hrs. accessed September 7, 2020.

Rotor: *Behind the Green Door*, Oslo Architecture Triennale, 2013. Photos: Behnisch Architekten

ed from one place to another and then reframed. Rotor's design practice deconstructs buildings into elements (construction, materials) and reassembles them in new ways by integrating existing components (from off-site reuse) into new structures. This process can be understood as a living archive of building elements that are constantly moving between buildings that are dismantled and then reassembled again and again.

A red carpet, for example, was taken from an apartment in a social housing block (relocation) and mounted on the wall of the exhibition as the apartment's floor plan (assemblage). The caption for this piece constitutes an archival tendency[10] because it is a descriptive listing of straightforward facts, merely noting: "Acrylic fiber carpet in a living room adjacent to an entryway, a hallway, a bedroom and a kitchen".

The red industrial carpet is represented as a diagram of the wear and tear created by the occupants through the processes of habitation and use. Thus, this carpet, already condemned as "waste", becomes a material for reuse; instead of being a sign of deficiency

10 "Every object is accompanied by a caption, a brief narration of objective, straightforward facts". In Lionel Devlieger, "Note from the editor", 6.

Rotor: *Behind the Green Door,*
Oslo Architecture Triennale, 2013.
Photo: Behnisch Architekten

or uselessness, the traces of wear and tear lead to critical reflections on use, users and construction practices through the new context of the art exhibition.

In a similar fashion, a banal industrial staircase, extracted and shown in the Belgian Pavilion, could be read as a map of human movements up and down this staircase. These works create an understanding of the human body as a formative tool that leaves distinct material traces of everyday human activity.

Rotor's intention for *Usus/Usures* "was to bring the subject of materiality into the arena of the Venice Biennale opposing the glorification of 'the New' that is implicit in this kind of exhibition format". They intended the subject of wear and tear to draw attention to the reaction of buildings to longtime use while challenging architects to critically anticipate this process of depreciation.

Thus, looking at buildings through the wear and tear lens leads to reflections on use, users and construction practices. The educational intention of an exhibition such as *Usus/Usures* is to encourage the public to change their attitude toward building materials and, more broadly, toward all objects around us.[11]

The discussion of wear and tear is largely taboo in architectural circles, partly because it contrasts fundamentally with the value of purgation and with construction cycles that have become shorter and shorter. As Rotor notes, "in the 20th century, under the combined influence of increased real-estate pressure, an obsession for speed in demolition, the availability of power-machines and explosives and fiscal constructions had encouraged accelerated building obsolescence".[12]

11 Charlott Greub, "Craft as a process and performance of resistance? Rotor, Wim Delvoye and 'deconstructing' architecture", in Ole W. Fischer, Shundana Yusaf and Mira Locher, eds., *Dialectic. VI, Craft: The Art of Making Architecture* (Salt Lake City, Novato: University of Utah, ORO Editions, 2018): 47-50.

12 Rotor "Urban Mining, Salvaging Materials. Conference statement" in Dirk van den Heuvel, Maarten Gielen, Lionel Devlieger, *Deconstruction: An International Symposium on Off-Site Reuse in Architecture*, Faculty of Architecture and the Built Environment, TU Delft, April 24-25, 2017, 7–12, accessed September 7, 2020.

Conclusion

The Rotor projects reviewed herein use art world techniques (archiving) and materials, processes and spaces (museums, galleries and the Venice Biennale) as realms for critical political commentary on the current global economic regime. They deconstruct existing value systems in art and architecture and open up room for archival practices as a strategy for research and design work, initiating a radical redesign of the built environment.

From this perspective, the archive is clearly not to be considered merely as an art-historical reservoir that houses the canon of architectural history. Instead, the archive should be seen as a resource providing both the basic building material for research and an active element for the (re)design of projects, as well as a creative approach to "archiving" and the use of the archive as a site of creative practice.[13]

This question of reusing existing buildings, along with their history and archival strategies, also has a literal dimension, involving how historic buildings can be taken apart into elements (construction, materials) and reassembled in new ways. Material reuse encourages the consideration of buildings as cultural repositories, not just of their material essence, but also of the knowledge and past practices of crafting buildings.

These past building practices are also presented as inputs and raw materials –in this case, of knowledge and skill– that might find new applications and contribute to new value systems. A reassessment of the conventional understanding of our architectural heritage would be well served by considering buildings as an assemblage of elements that could be dismantled and later reassembled, possibly into totally new configurations or possibilities.[14]

Rotor's works explore the notion of wear and tear as it relates to the use of materials, objects and building structures. For this perspective, material use is not to be conflated with or limited to program or function, but rather expanded to include the social aspects of the occupation and inhabitation or use of architectural products during their lifespan. Rotor focuses on modernist and contemporary buildings slated for demolition in order to reuse their materials or "waste" components for innovative redesign.[15]

Not only does Rotor's distinct yet comparable approach entail urgent questions of sustainability, reuse and appropriation,[16] it also implies a need for a different view on history and historical production, recharging the critical aspect of archival, curatorial and design practices in architecture and incorporating the problem of reuse: the reuse of materials and building elements, but also the reuse of ideas, knowledge, archives and memory.

13 Lionel Devlieger, "Note from the editor", pp. 3-8.

14 Rotor, "Urban Mining, Salvaging Materials. Conference statement".

15 Lionel Devlieger, *Deconstruction: An International Symposium on Off-Site Reuse in Architecture* Faculty of Architecture and the Built Environment, TU Delft, April 24-25, 2017, 7–12, accessed September 7, 2020.

16 "We explore pressing questions by performing an archeology of the present". Lionel Devlieger, "Note from the editor", 3.

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