


Maurice Blanchard Apartment

by [Violaine Ducarroz](#) / 2021-06-15 00:00:00 / France / 3141 / FR

Renovation



Primary energy need :

100 kWh_{ep}/m².an

(Calculation method : RT 2012)

ENERGY CONSUMPTION

Economical building *Building*

< 50	A
51 à 90	B
91 à 150	C
151 à 230	D
231 à 330	E
331 à 450	F
> 450	G

Energy-intensive building

Building Type : Collective housing < 50m
Construction Year : 1963
Delivery year : 2021
Address 1 - street : 11 square Maurice Blanchard 49000 ANGERS, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 75 m² SHON
Construction/refurbishment cost : 28 800 €
Cost/m2 : 384 €/m²

General information

This is the renovation of a 4-room apartment in a 4-storey residence from the 1960s.

The adaptation of this apartment to the family who lives there involves the installation of custom-made furniture and an almost complete renovation of the place.

- The elements deposited were all reused, either in situ or elsewhere via donations (with the exception of the flexible floors which were glued).
- Most of the electrical equipment has been preserved (dismantled, put back in use and put back in place). The custom-made furniture is almost exclusively made from re-used wood, this search for second-life wood makes it possible to limit the exploitation of wood which is accelerating with the development (in France in particular) of the construction with bone other wood, but it also makes it possible to offer very noble species at a reasonable cost.
- The new materials required have all been selected according to ecological criteria (biobased, local, unprocessed).

This project has not implemented an improvement in the energy performance of the apartment for several reasons: to begin with, the current thermal comfort was good, moreover the heating networks are collective and it is almost impossible to intervene on them (the entire circuit must be cut and purged), which prevents intervention behind the cast iron radiators. In addition, the carpentry was changed less than 5 years ago, its performance is good and they all have integrated natural air intakes. Finally, this small apartment like its neighbors presents "minimal" surfaces and cannot suffer from an insulated interior lining without descending under the regulatory living surfaces. Thus, the reduction of the energy consumption of the residence will have to go through a thermal insulation from the outside which is not planned yet.

Regarding the indoor air, one of the rooms showed traces of humidity, it turned out that a roller shutter box was applied in front of the joinery, blocking the natural air intake. It was decided by the clients to adapt their operation to this reality: leave the tilt-and-turn window open as soon as the weather allows it (and when this

is not the case ventilate the room generously) in order to ensure natural ventilation. As for the room which serves as bedroom and office, facing north-north-west, it is healthy and properly ventilated. The bathrooms all have a window to the outside and the apartment's crossing status mechanically generates circulation and renewal of the indoor air.

Sustainable development approach of the project owner

From the outset, the building owners wanted the use of raw and healthy materials for their durability and aesthetics. This family lives and operates on a decreasing model with few possessions, durable furniture, lots of rentals / exchanges, especially for children whose desires and needs often change.

Architectural description

Response to needs through proposals for ecological materials, tailor-made furniture.

Building users opinion

"We did not think we could have such a beautiful apartment. Our project has both gained momentum over the course of our discussions with you and at the same time the work budget has not increased. Without you the rooms would not be not as practical and pleasant. "

Bio-based materials provide significant sound and tactile comfort.

See more details about this project

Photo credit

Atelier de rien du tout - architecture

Stakeholders

Contractor

Name : Privé - Particulier

Construction Manager

Name : l'Atelier de rien du tout - Architecture

Contact : Atelier[at]atelierderiendutout.fr

Stakeholders

Artipeintre

contact[at]artipeintre.fr

<https://artipeintre.fr/>

Removal / Demolition / Partitioning / Painting + Wall cladding / Floor covering /

Vélectricité

velectricite49[at]gmail.com

<https://velectricite49.wixsite.com/website>

electricity

les Grands Bois

contact[at]les-grands-bois.fr

<https://les-grands-bois.fr/>

Custom furniture

Type of market

Global performance contract

Energy

Energy consumption

Primary energy need : 100,00 kWh_{ep}/m².an

Primary energy need for standard building : 100,00 kWh_{ep}/m².an

Calculation method : RT 2012

0

Initial consumption : 100,00 kWh_{ep}/m².an

Real final energy consumption

Final Energy : 100,00 kWh_{ep}/m².an

0

Renewables & systems

Systems

Heating system :

- Water radiator

Hot water system :

- Gas boiler

Cooling system :

- No cooling system

Ventilation system :

- Double flow

Renewable systems :

- No renewable energy systems

Environment

Urban environment

The Maurice Blanchard square is located in the city center, a few minutes walk from Angers train station, with Paris at 1h40 by TGC, Tours and Nantes at 45 min, but also close to the tram and many bus lines in the agglomeration. For the owners who have chosen the bicycle and do not have a car, this proximity is a guarantee of living comfort. In addition, this crossing apartment has the chance to have a view on the beautiful green space of the residence, which is rare in the city.

The owners have therefore decided to improve this property so that it best meets their needs rather than moving out.

Costs

Circular Economy

Reuse : same function or different function

Batches concerned by reuse :

- Indoor joineries
- Floorings
- Electricity
- others...

For each batch : Reused Materials / Products / Equipments :

Moe: design integrating reuse and its particularities.

Demolition / careful removal:

- all small equipment (electrical / door handles ..)

Painting - plastering:

- painting: bottoms of pots reused on other sites

Electricity :

- electric chutes.
- switch and socket covers
- sockets and inter
- floor coverings: existing floating parquet deposited and given for a second life elsewhere (56m²)

Custom furniture:

- re-used wood
- Lacquers and paints

Reused materials rate :

Demolition:

- all small equipment (inter / door handles ..): 80% (one handle and 2 damaged socket covers)
 - 5% of the lot

Painting - plastering:

- painting: black painting for finishes / details (5m²)
 - 5% of the lot

Electricity :

- electric chutes: 100% (22 mL)
- switch and socket covers: 50% (18 Units)
- sockets and interruptions: 50% (18 Units)
 - 60% of the lot

Custom furniture:

- 90% re-used wood (50m²)
- Lacquers and paints 50% (6m²)
 - 85% of the lot

Field of use and material origin :

Direct reuse in situ (electricity package) and external (painting)

The diverted reuse: in the furniture of the doors deposited then stored by the cabinetmaker are implemented as panel

Upcycling: supplying the cabinetmaker to a local company that recreates boards from old wood joinery.

Environmental assessment

Impacts avoided : water, waste, CO2 :

On this project, the reuse of materials * made it possible to avoid:

The emission of 0.616 tonnes eqCO2

The use of 143 m3 of water

The production of 0.575 tonnes of waste

The impact calculation was made from environmental data from the INIES database

* excluding small elements (switch and socket covers)

Economic assessment

Total cost of reuse : 8 646 €

Cost of reuse in percentage of the operation : 30 %

Social economy

Social economy and professional integration :

Matière Grise: association requested to establish links with buyers (floating floors deposited) belongs to the field of ESS as well as several other partners with whom we regularly exchange to advance the possibilities in this field of building reuse in Angers and surroundings.

The intervening companies had interns during the construction period, who are thus trained in the search for good practices in the construction world.

Reasons for participating in the competition(s)

The owners contacted us before acquiring the property (of which they were then tenants) to ensure that this 3-bedroom apartment of 75m² was suitable in the medium-long term to continue to welcome the 5 members of their family.

Their initial idea was to think about healthy, local and sustainable materials. Ours to include reuse in this nice challenge. We immediately understood each other on the issues and the partners to be solicited for the realization of this project.

From the mastery of use, we questioned the removal / change needs of each material. With a systematic cross-reading: improvement of housing (sound, practical ...) / response to aesthetic desires / quality of replacement materials.

Building candidate in the category



Bâtiments résidentiels / prix de la rénovation

