

Retourette Houten

Designing a system to prevent the incineration or wasting of reusable construction materials tailored to Houtens' image, opportunities and requisites.

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Houten is a small city located close to Utrecht. Its municipality advocates sustainability and has several existing measures to aid this cause. The employees of the Waste Station Houten however, noticed that a big step towards a more sustainable city can be taken in regard of preventing waste from being incinerated or used as landfill.

The aim of this project is to design a system fit to Houtens' municipality, local organisations and residents, which will prevent this waste from being unnecessarily wasted. Because Houten has a strong community feeling residents appreciate local ventures and collaborations. Furthermore, the designed system and organisation would benefit greatly from adding a social aspect to the process. This means including employees with poor job-prospects and adding inclusivity.

In the duration of the project, three analyses took place. The first concerned the stakeholders, determining which local ventures were to be included, at this moment in time, in the design of this system. The main stakeholders established were; the thrift store *Noppes Houten*, the Waste Station, two waste-companies; *Beelen Next* and *SUEZ*. To include the social aspect in this project *de Houtense Werktafel* participated as well. And an experienced similar local organisation *de Krachtfabriek Houten* was included. Next, the claim of reusing construction materials was backed in the second analysis. The reuse of these materials is better than to recycle them as it reduces CO2 emission during processing and the creation of new materials. The third analysis described the basic aspects of any previous, similar projects that have taken place. For instance the *Bouwkringloop Vianen*, *Buurman Utrecht* or *De Loods Milsbeek* where organisations resell used construction materials in many different ways. These aspects lay the foundation upon which the Retourette Houten could be designed. Some examples of these aspects are a work-workshop, collaborations with construction companies, an online platform or the offer of pick-up and delivery service.

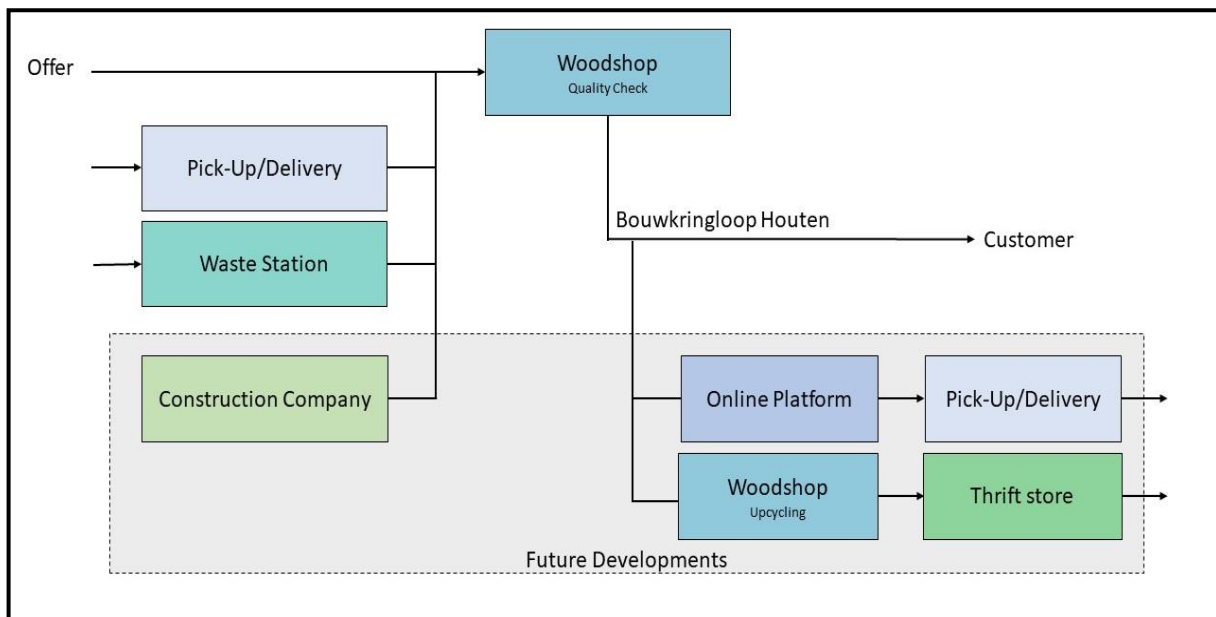


Image 1, Retourette Systematic Visualisation

With the help of collaborating stakeholders a basic design was established during a co-design session. After some iterations regarding available space and permits, the design is as such: a system located in an (soon to be) empty hall on the Municipality yard with the entrance at the *Noppes* driveway, where residents will be asked to deliver their construction waste separately from the waste station and the thrift store. In the Retourette the materials will be checked on quality and origin and priced by an experienced employee. The social employees manning the store will place the materials in a sorted manner and sell them to other residents.

The design presented in this project contains several optional developments that can be added to the design and create more value and a different focus. For example an open wood-workshop where residents delivering their materials immediately stumble upon employees working with these materials, upcycling products and creating new products. Another option is offering workshops to residents unexperienced with wood-work, even accommodating groupactivities such as company-outings. The third development offers the renting of tangible space, a workbench and the tools of the Retourette to residents who do not have the space and tools needed for their own projects. In addition to these three options, online platforms also present a wide range of opportunities. The first online platform option is an educational platform where information about the Retourette is presented along with sustainable tips and knowledge. The second can be online stock-information of the shop or even an online shop, enabling residents to order their products. These developments are added as a recommendation with the disclaimer that further research is needed during the trial period to establish which of the options are most beneficial to the Retourette Houten.

With the implementation of a Retourette in the design presented in this report the Municipality of Houten will be able to take a big step in the direction of a circular economy tailored entirely to the image and identity of Houten.

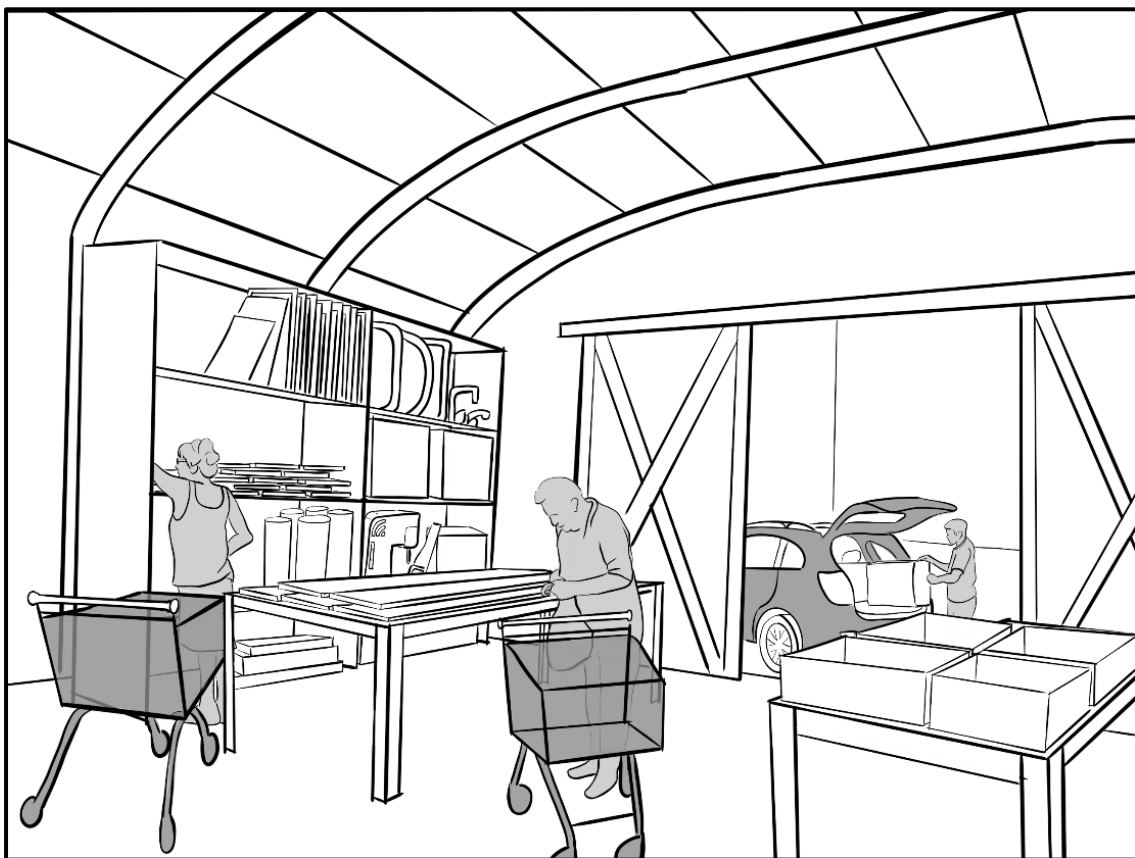


Image 2, Retourette Ambiance Visualisation