

Dijkhuis, tiny house

Tiny houses as a new building option for building contractor Dijkhuis.

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Background information, relevance and research question

Dijkhuis is a firm of contractors and one of the few building contractors who wants to build truly sustainable. The current manager, Eberhard Dijkhuis, developed this point of view by following a course in building biology given by the IBN (Institut für Baubiologie + Nachhaltigkeit). The IBN educates in constructing buildings which are sustainable and good for human health (IBN, 2018).

Tiny houses are well-known for being sustainable housing solutions (Carlin, 2014). The tiny house movement started in Amerika. The housing crisis in 2008 kickstarted this movement (Ford & Gomez-Lanier, 2017). Many people decided to avoid buying expensive lots and instead went living in tiny houses on wheels. The tiny house residents in the Netherlands chose for this type of dwelling not only to save on monthly costs, but also to be conscious about their lifestyle and the environment (van der Lee, 2016).

Dijkhuis and tiny houses seem to suit together. Therefore the research question of this thesis is: *How does the Dutch market respond to the growing demand for tiny houses and where is this demand originated, which point of view must Dijkhuis follow to implement his philosophy in this market and which design steps are needed to do so?*

Approach

The research is divided into four phases. The first three phases are used to answer the research question in order to make a design step happen in the fourth phase. The first phase elaborates on the philosophy and values of Dijkhuis supported by personal interviews with the director. The second phase discusses the tiny house market based on literature studies and field research. The third phase investigates possible design steps by discussing presented solutions with employees of Dijkhuis.

Results

Dutch pioneers started the movement just like the Americans with tiny houses on wheels. However, there appears to be a demand for more permanent solutions (van der Lee, 2016). The target group for tiny houses is broad (Carlin, 2014). It consists of young starters, retirees and people of all sorts of ages who wishes to reside differently.

Tiny houses can be used in many ways. Because they are quick to build and easy to move, and because of their modern characteristics they are multifunctional. Many see tiny houses as a sustainable and environmentally friendly solution for dwelling-issues. Tiny houses are being broad up to be used as a solution for starters who cannot yet buy a house but don't want to rent anymore. They can also function as sheltered accommodation. Also, they can be used as a solution for the resident who wants to have a custom-designed/custom-made home (Ford & Gomez-Lanier, 2017).

The demand in tiny houses exceeds the supply in suitable plots (van der Lee, 2016). This is partly caused by the Dutch governments building laws not being ready for this new form of dwelling, what results in too little space for tiny housing. However positive changes are afoot (Jonker, 2017). These must be carefully watched.

In the fourth phase, a design step is made. The goal of this design step is to develop an aid for the architect. This aid is used in his process of designing a tiny house. The architect will develop a project definition when designing a tiny house. During this development, he can use the aid as a concept for a project definition as a base for his own project definition. This so-called concept-project-definition will be a separated graphical designed document.

Conclusions

After the presentation and discussion, it became clear for Dijkhuis which direction to take. Dijkhuis wants to build permanent tiny houses on site and they must satisfy the Dutch building laws. This goal is written down in the statement of requirements. Furthermore, the philosophy of Dijkhuis, the philosophy of the Dutch tiny house movement, and the special requirements who are related to building tiny houses are included in the statement of requirements. The concept-project-definition can be used as an aid at the project consult between the architect and the client for designing a tiny house which meets the philosophy of the tiny house movement and Dijkhuis and the constraints of the latter.

Reverences

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