06 - VOLUNTARY SELF-BUILD MOVEMENT

Voluntary Self-Build Movement

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Abstract

Building in the changeable landscape of the Dutch polders is not straightforward, housing can only take place for a limited amount of time before the inhabitants have to move to a new location again. Because this way of living is not profitable for traditional investors such a location would attract self-builders, building their demountable structures for temporary inhabitation. Self-building is a complex undertaking, especially when building demountable at the same time, this research is aimed to find out what type of recommendations professionals in the building industry would give to the self-builder to make the process of building in the polder manageable. Surveys were conducted with 9 participants working in the building sector as carpenters or work planners. Questions were based on the preparation phase, the feasibility of the ambitions of the self-builder, and materialization and demountability recommendations. The analysis showed that although the professionals wouldn't recommend the self-builder to embark on the build completely themselves, under supervision they could participate in the whole process. Furthermore, elements that need certification should always be made with an expert, knowing important details the self-builder would not. The easiest process for building itself is using wood and steel as materials, most of it built through prefabrication and some on the job site. It is concluded that the self-builder would be able to participate in all work, but experts are still needed for specific elements and the production of technical drawings.

Keywords

Material culture, do-it-yourself (DIY), self-build, housing production, professional participation

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Introduction

Building in an area that is prone to change is a challenge in itself, it might even scare some away, but can also attract ones that are up for a challenge. This also applies to the Dutch polder landscape in which the water is our friend and enemy requiring us to be adaptable with our buildings, and being prepared to build for a shorter period of time than we are used to.

The self-build commission focuses on accepting the challenge of adaptability and embracing the rural landscape a group of self-building, and do-it-yourself-oriented members of a collective private commission seeking to build flexible and demountable housing. The aim of this research is to gain insight into methods to make the building process simple and understandable for DIY-ers, by advice of professionals in the built environment.

In previous research the rational and symbolic explanations for the decision to self-build have been extensively explored. Rationalist explanations could for instance imply goals such as customization and cost, whilst symbolic ones are more about self-expression and satisfaction[1]. Drawing on material culture, research has been done by interviewing DIY-ers on their connection with the buildings and how they selected materials. They primarily selected easy-to-work-with materials, sacrificing their longevity compared to more robust ones[2]. Although the builders are called do-it-yourselfers, professionals were sometimes asked for help and advice during construction or preparation, but according to Roni Brown, it is these professionals that through the professionalization of the building sector distanced the ordinary people further from the building sector. She also stated that the productive and mutual relationship to be struck between professional and amateur is yet to be fulfilled in practice and appraised in research[3]. Expanding upon this statement this research tries to fill the research gap in the search of simple and understandable building techniques DIY-ers are able to use.

To find these building methods the following research question has been formulated:

What type of advice would professionals in the building industry give self-builders, in order to create a simple and understandable building process?

The objective of this research is to answer this question by conducting surveys to collect data from professionals in the building industry. It aims to find out how professionals would advise self-builders to approach their construction process, focusing mainly on preparation, materialization, and execution. The group of surveyed professionals consists of technical engineers, carpenters, and work planners, offering their views on the three topics.

In the first chapter of this paper, a literature review is carried out to discover the research that has already been carried out. This review is divided into the following chapters: motives and preparation, materialization of DIY projects, and the involvement of professionals. Based on this information the research gap is explored and the methodology of the research is explained. Thereafter, the results of the research are formulated, closed off by a conclusion, and further recommendations.

The self-build & DIY

Self-building and especially the building of DIY (Do-It-Yourself) housing is relatively uncommon in the built environment. Most housing projects are still run by housing companies and investors, with 10% of all projects being self-build, which translates to 6.500 houses in 2022[4]. A small part of this group can then be considered as DIY-ers, when looking at Almere Homeruskwartier (one of the biggest self-build neighborhoods in the world) for instance, just 19% of this group is considered as DIY[5]. Despite this relatively small number of households being built, a reasonable amount of research covering the realm of self-building and do-it-yourself-building has been conducted. In the following chapter the motives/preparation, materialization of the buildings, and the help of professionals will be uncovered to gain insight into the research that has already been done.

Motives and preparation

DIY occurs when homeowners decorate, alter, build, maintain, or repair any part of their house themselves, rather than paying a professional tradesperson to do the work for them[6]. Homeowners have varying reasons for DIY, and has already been researched extensively. Through a literature review the existing theoretical framework is explored on the motivation and preparations DIY-ers undertake.

Motives

Existing research tends to understand self-building or DIY as an individual consumption choice. This choice has two forms of explanation, a rationalist one and a symbolic explanation[7]. A rationalist motivation to self-build could for instance be the maximization of the volume of the interior space within budget constraints[8]. For them, it would be important to maximize the space and utilize the plot as much as possible. For others, the motivation for self-building could be more about the customization that is achievable compared to mass housing. The self-builder would, within their financial limits, be able to design a layout to better match their pattern of living[9]. Another explanation is given by Atkinson, who compares DIY with democracy. According to him, DIY acts as a democratizing agency that releases people from the grip of professional tradesmen and skilled artisans[10]. This is then linked in a Danish study to financial reasons, stating that an average wage earner has to work 4-5 hours to pay for 1 hour's house repairs[11].

Perhaps more architectural-based are the symbolic explanations of motives for self-building. For many carrying out DIY tasks confirms the feeling in their relationships, belonging, and their feeling of ownership of a building. In research by Rosie Cox, who interviews people who carry out DIY, many of the interviewees talked about the satisfaction they gained from 'putting their stamp' on a place through the work that they did and the changes they made[12]. A similar example is given by Roni Brown, who stated that a common starting point for all of the projects she researched was a motivation to create more desirable accommodations with confidence in existing skills and a readiness to learn new skills and confront risk and uncertainty[13]. Besides the building process also the preparation phase gave DIY-ers a sense of pleasure from imagining and interacting socially concerning intentions and plans for DIY activity[14]. All these motivations mentioned here are relatable to the material culture realm, and in the case of the building process have close ties with the book *The Craftsman* by Robber Sennett. In his book, he mentions that craftsmanship cuts a far wider swath than skilled manual labor. Craftsmanship names an enduring, basic human impulse, the desire to do a job well for its own sake[15]. This craftsmanship is especially applicable to the rural eco-homes researched by Tao and Vyas, who discovered that the occupants that carry out DIY in these circumstances care more about the value of craftsmanship and the long-term relationship between maker and material[16].

Preparation & Starting Points

As stated in the previous chapter by Roni Brown, most self-build and DIY projects start from a combined motivation to create a more desirable accommodation whilst also accepting the challenges of the building process[17]. In the case of the Homeruskwartier, mentioned in the introduction of this chapter, a lot of self-builders started with broad parameters for their designs and development strategies. One could relate to one element of housing layout, a specific aesthetic style, or the desire to work with a particular material, which provided the starting point for the design process[18]. Others started with a more general thought of creating as much interior space as possible within the constraints of their budgets[19]. In the real eco-homes, the owners would use a material-first approach, trying to minimize the cost of materials often including garbage as a building resource, and starting from there[20]. Generally speaking, the preparation and starting points may vary per household, but the motives often correlate between the two.

Materializing the do-it-yourself

By self-building in the form of DIY, people bind with their homes and the material they are made of, this is illustrated by Blunt and Dowling in their book Home, linking the self-building culture to material culture. People adapt to and adapt the physical construction of their home as part of home-making practices which 'bind the material and imaginative geographies of home closely together and exist over a range of scales[21].' This is also noted by Perkins and Thorns, stating that the significance of particular forms of home-based domestic work, do-it-yourself maintenance and building, has meant that many New Zealanders have developed a special type of relationship with their houses which has seen them continually renovating and changing the physical shape of house and garden[22].

Before one arrives at the state of a relationship with the building, garden, or objects within either of those, the construction process needs to be completed. Before the construction process starts, a decision needs to be made on the materiality of the structure and cladding, which is especially important for a self-builder an important decision to make. First and foremost the materiality of the building is influenced by the location of the project. For rural-based eco-homes that are self-built manual tools, local materials, and low-tech primitive technologies determine the building process and materiality. This is because they can unlike urban DIY activities not rely on existing industrial infrastructure, global supply chains, and emerging automatic tools[23]. In other cultures, like in New Zealand, the building materials used for houses reflect not only the relatively wide availability of wood and shortage of stone for buildings but also a Colonial and post-Colonial history that has positioned wooden, single-story homes as part of the 'New Zealand dream'[24]. Another approach was taken by Walter Segal (1907 – 1985) who designed homes in the form of Participatory Housing, enabling future residents to build their own homes. Their building method was characterized by ease and economy through cost-effective and available materials in standard sizes were used for construction and ensured a building process without a specialized craftsman[25].

Assumably the most defining factor in the decision of materials is the skill of the self-builder himself, it depends on what material they are comfortable working with and how this translates into a building. The difference in skill and thus decisions made from that is illustrated in research by Rosie Cox on the DIY-ers of New Zealand. While some of the interviewees wanted homes that required little maintenance or were made from materials that were as weather-resistant as possible, others did not and they wanted homes made from materials that they could work with both because they welcomed the process of working on their homes and because those materials represented homeyness to them. DIY was important enough to some people, that they trade longevity for a workable material[26]. For some owners, their skill was thus the defining factor for the selection of materials, even though they were sacrificing some longevity. Availability of tools can also be a defining factor, this is for instance the case in the researched eco-homes, which only have access to manual tools. Materials that are easy to process by hand, such as wood, bamboo, straw, earth, and light steel were picked[27].

Professional advise for DIY

In many cases, professionals are asked to advise self-builders who might run into trouble during the planning or execution of the building process. The self-build project in Almere (Homeruskwartier) had a total of 17 DIY builders. 35% of those would have wanted more guidance during the process. Surprisingly the wish for guidance on the construction process was around 59% whilst the wish for an architect was just 10%. Second, on the list was someone keeping an eye on the costs, and third someone making the construction drawings[28]. For the ones building their own houses, not having guidance on the execution was thus the most important factor of uncertainty. The method of Walter Segal is aimed to take away as many of these uncertainties in creating a design suited to the resident's needs, whilst constantly consulting with the self-builders during the design process. Eventually, when de design was finalized, he made the final plans accompanied by a manual that described the construction process. He then went as far as to order the building materials and offer evening schools to the self-builders. In Segal's opinion, the architect was in the role of assistant who led the self-builders and gave the basis for construction[29].

Finally, a lot of information is nowadays available on the internet, books, manuals, leaflets, etc[30]. One should evaluate this information carefully because a lot of them are more considered "aesthetic education" with so-called "tastemakers" promoting the newest trends instead of showing instructions for the building itself[31].

Methodology

Approaching the self-build

As explored in the literature review much research has already been done on the topic of self-building and DIY. This research has covered rationalists and symbolic thinking of the self-builders, shining light on both sides of the spectrum of motivations for starting the building process as an amateur. In some research papers connections to professionals are mentioned, but overall the self-builder is an autonomous person building from their own experience or research conducted by themselves. Currently, a gap in the existing research exists on how professionals in the building sector look at the concept of self-builders. In the case of the Homeruskwartier in Almere, we know through the research report that self-builders would like more guidance during the building process[32]. Research has not been conducted on the advice a professional would give a self-builder before they start the process, which will be researched in this report.

This research aims to gain insight into what advice a professional in the building industry would give to a person looking into the self-building process. Data will be gathered on recommended preparation, buildable parts, demountable building methods, and materiality. These elements will then be used as input for the design of a demountable building in the polder of Midden-Delfland, which will be built by a group of amateurs.

Data collection

To collect data from professionals in the building industry a quantitative method, using a survey is selected. The survey is designed based on the book Research Methods for Architecture, utilizing chapter 6, conducting interviews[33]. Via this guide the questions were made, based on the fact that professionals in the building industry were taking the survey technical jargon could be implemented. The questions are a mix of multiple-choice and open questions, with the reasoning to give the participants the space to truly express their understanding of the questions asked. Based on the literature review the survey will have three parts. The first questions will be aimed at what preparations professionals would recommend the self-builders to take. Then, secondly, the feasibility will be questioned, trying to uncover what building parts, if any, will be buildable by the self-builder. To close the last part of the survey is formulated to find out what materials and building methodologies can be used to build demountable.

In some cases questions were handed out during work meetings and in others virtually, the questions were not conducted in person. The questions survey is written in Dutch, because of the Dutch target group, in appendix one there is an English version of the questionnaire added. A practically oriented group of colleagues working at a contractor, including 16 carpenters and 4 work planners, have been selected for the survey. From the contractor, the response was 9 of which 3 are work planners and 6 are carpenters.

Data analysis

The data was first prepared and fully digitalized, some surveys were filled in with pen and paper and had to be digitalized to compare them more easily, whilst the online forms had to be copied into the format. Once all the data was digitalized and easy to compare the answers to the multiple-choice questions are counted and summed up to discover a theme or pattern. The open questions were analyzed based on a thematic analysis. The data was analyzed to identify broad themes and patterns, trying to gain an understanding of the broader theme or way of thinking of the professionals. Finally, the combined or thematic results are made visual through numbers or categories that appeared in the results of the questions. The visualization process will be done through diagrams, taking further shape as the research progresses.

Survey and results

As stated in the previous chapter, the survey that will take place is divided into three categories. The first three questions are aimed at finding out what kind of preparation a professional would recommend a self-builder to take before starting to build. In a second set of four questions, the aim is to find out if building a complete building is feasible for a self-builder or not. Most presumably the self-builder is not able to build all parts of the structure, so finding out what can be built and what can not is the main goal. The final section is divided into five questions based on materiality and demountability. Figuring out what the preferred materials and building methodologies are is central in this section. The questions that have been posed to the participants according to the three categories are as follows:

Preparations

- Would you advice a DIY self-builder to contact an advisor as preparation before they start working? (architect, technical engineer, structural engineer, etc.)
- If yes, what type of advice or products would you recommend getting before starting a DIY building project, and who would you recommend asking?
- Expecting the self-builder knows how to draw, would you recommend them designing their building themselves or have it done by an architect?

Feasibility

- Would a self-builder be able to build all parts (foundation, structure, facade, etc.) of a building themselves, knowing that they don't have a lot of building experience?
- What parts of a building would a self-builder be able to complete themselves in a DIY fashion, and why?
- What parts of a building requires expert knowledge, and would you recommend to be executed by a contractor, and why?
- Would a self-builder be able to execute these building parts under supervision and support from a professional/carpenter?

Materiality & Demountability

- What materials would you recommend the self-builder for creating easy to assemble, demountable, and reusable buildings without a footprint?
- Would you recommend to the self-builder harder to process but more durable or easier and less durable materials requiring more maintenance?
- Would you recommend building assembling a building in prefabricated elements, or build a demountable building on site?
- What particular building techniques/methodologies would you recommend for this, keeping in mind that the building needs to be disassembled?
- If the self-builder wants to find information, where would you recommend them looking for? (books, speaking to professionals, social media, etc.)

Examples of received surveys

On the following pages a couple of examples are given, showing the hand-written surveys that have been received for the research.

Kan een zelfbouwer zelfstandig alle onderdelen (fundering, constructie, gevel etc.) bouwen, wetende dat ze vrijwel geen bouwervaring hebben?

☐ Ja ☒ Nee

Welke onderdelen van een gebouw kan een zelfbouwer als een doe-het-zelver uitvoeren en waarom?

constructieve onderdelen zijn op voorhand vergunningsplichtig dus deze mede door de veiligheid niet zelf uit te voeren. Tevens is het steeds vaker bouwfysisch een probleem gecombineerd met ventilatie waar zelfbouwers zwaar in onderschatten. Prima dat mensen zelf wat doen maar laten ze zich juist informeren op alle gebieden

figure 01 - Survey example

Kan een zelfbouwer zelfstandig alle onderdelen (fundering, constructie, gevel etc.) bouwen, wetende dat ze vrijwel geen bouwervaring hebben?

☐ Ja ☒ Nee

Welke onderdelen van een gebouw kan een zelfbouwer als een doe-het-zelver uitvoeren en waarom?

Ik vind niet dat de zelfbouwer constructieve bouw zelf moet doen. Dit risico moet je niet willen nemen. Niet constructieve bouw kan je wel zelf doen.

figure 02 - Survey example

Kan een zelfbouwer zelfstandig alle onderdelen (fundering, constructie, gevel etc.) bouwen, wetende dat ze vrijwel geen bouwervaring hebben?

☐ Ja ☒ Nee

Welke onderdelen van een gebouw kan een zelfbouwer als een doe-het-zelver uitvoeren en waarom?

Geen constructie werk, overige werkzaamheden wel

figure 03 - Survey example

Kan een zelfbouwer zelfstandig alle onderdelen (fundering, constructie, gevel etc.) bouwen, wetende dat ze vrijwel geen bouwervaring hebben?

☐ Ja ☒ Nee

Welke onderdelen van een gebouw kan een zelfbouwer als een doe-het-zelver uitvoeren en waarom?

Niet constructieve delen in- en afbouw. Technische installaties als bouwpakket. Gebouw moet wel veilig blijven staan voor minimaal 50 jaar.

Constructieve onderdelen onder supervisie van een aannemer/constructeur

figure 04 - Survey example

Preparation

Once the self-builder has decided to go ahead with the idea to self-build a house, or other structure, preparations need to be made before starting the construction process. Although there was for the Homeruskwartier in Almere just a small percentage of self-builders requiring the guidance of an architect or professional in the preparation phase[34], the outcome of survey clearly states the opposite. All participants would recommend a self-builder to contact an advisor before starting construction.

When it comes to what type of advice or advice from whom, the interviewees gave very variable answers. This might have to do with all the options that are available nowadays, which was also mentioned: '*Because of all the specific requirements and choices it is becoming much harder to support a customer at all levels, external advice is necessary more than ever.*' Most commonly the architect gets mentioned, often linked to making drawings the self-builder can use in construction. '*I would let the drawing be done by an architect and let him apply for the permit.*' Part of applying for a permit is also structural calculations, these might be, although not mentioned often, the most important part of the preparation. As one interviewee mentioned: '*Depending on the wishes of the client, there always needs to be a structural calculation. Besides that, it is my opinion that technical details need to be drawn so that the building is water- and airtight.*' Again the structural engineer and his calculations are mentioned here, combined with the requirement of drawings to guarantee the building quality. Another advisor that is often mentioned is the building consultancy firm or building supervisor. The task of one of these two professionals would be to check the drawings and or building preparations and is also able to help during the construction process itself later on. Finally, it is to be noted that one interviewee mentioned the architect as an important advisor for biobased materials, energy neutrality, and sustainability.

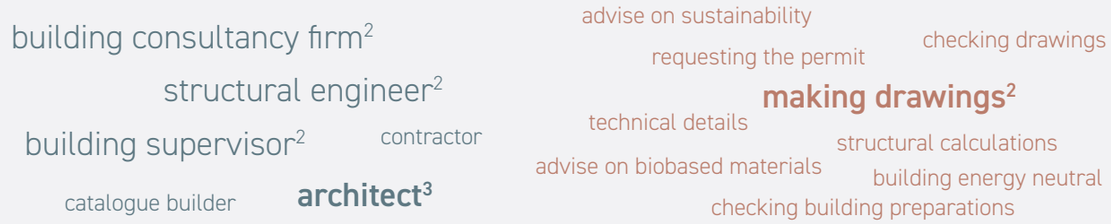
The architect is also the person allocated to drawing the plans and details of a building, according to the outcome of the survey, all participants named the architect, even though the self-builder would know how to draw. *´If you are creative, you can design your building with the help of the internet or similar. After that ask professionals if your ideas are possible.*' In this case, the architect is combined with the self-builder, but combinations with contractors and drawing offices are also mentioned. All in all, with multiple people you will always come the furthest.

Q1

Would you recommend a self-builder to contact an advisor as preparation before they start building? (architect, technical engineer, structural engineer, etc.)

Q2

If yes, what type of advice or products would you recommend getting before starting a DIY building project, and who would you recommend asking?



Q3

Expecting the self-builder knows how to draw, would you recommend them designing their building themselves or have it done by an architect?

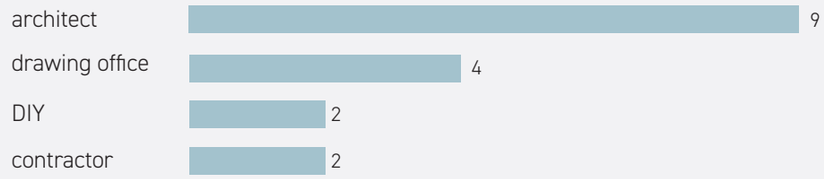


figure 05 - Results of preparation oriented questions

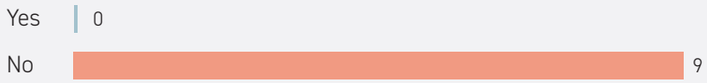
Feasibility

With the preparation covered the self-builder now enters a new phase, the construction process in which the building will be realized. On the question, of whether the self-builder can realize the complete building on itself a clear answer is given, this is not achievable according to the interviewees. Building elements such as finishings, non-structural, and non-building physical elements are seen as makable when done by a self-builder. All the carpenters and work planners were a bit cautious with the self-builder doing all the work, statements like: '*The finishing can be done by the self-builder' or 'it is fine that people want to do things themselves, but they should let them be informed correctly on all areas.*' confirm this.

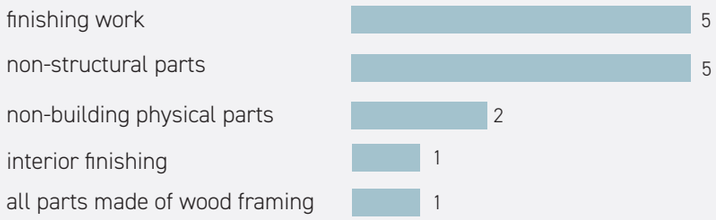
The interviewers were less cautious about the elements a self-builder cannot do. On workplanner stated the following: '*I don't think the self-builder should do the structural parts. This is a risk you shouldn't be willing to take.*' continuing, '*The structure is determining for the "power" of the dwelling, if you do this wrong it could have devastating consequences, also for the people living around the project.*' The remaining interviewees also stated that the structure is a part that should not be built by a self-builder alone. Other common elements that are often mentioned as non-achievable construction elements are the parts related to building physics, such as heating, ventilation, and electric installations. Others add to the building physics the certification and guarantee as a reason why self-builders shouldn't build these parts, despite this building physics might be the hardest element to get grips on. '*... Furthermore, a common constraint is the fact that building physics is often problematic in combination with ventilation, something self-builders underestimate severely.*' Finally, some small elements are linked to hard-to-build objects, these would be roof finishings, zinc elements, and in some cases exterior windows. All of these elements would in most cases require specialists, and are often elements carpenters also do not build very often.

Even though the interviewees were not very optimistic about the chances of completing the entire house by itself, there are still some possibilities to participate in the process. All the participants except one stated that under the supervision and support of a professional, the self-builder would be able to do all the work themselves. The only one answering no stated that *'Supervising costs a lot of time, so the professional can probably do it faster alone.*' This would of course eliminate the feeling of satisfaction of the self-builder.

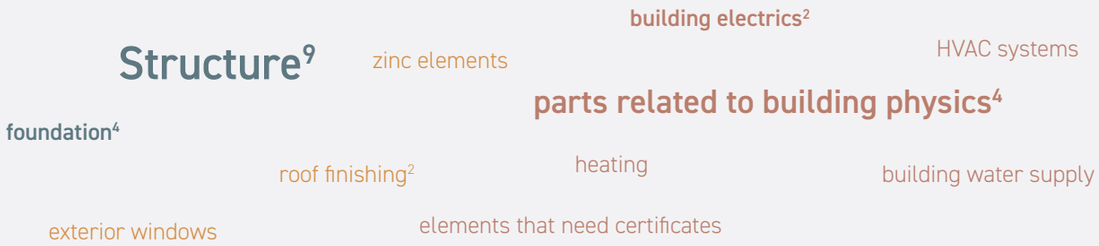
Q4
Would a self-builder be able to build all parts (foundation, structure, facade, etc.) of a building themselves, knowing that they don't have a lot of building experience?



Q5
What parts of a building would a self-builder be able to complete themselves in a DIY fashion, and why?



Q6
What parts of a building requires expert knowledge, and would you recommend to be executed by a contractor, and why?



Q7
Would a self-builder be able to execute these building parts under supervision and support from a professional/ carpenter?

figure 06 - Result of feasibility questions

Materiality & Demountability

Materials can be a determining factor in many ways, it could be ease of use, insulating properties, aesthetics, and many more. In the case of this survey, the materiality is closely connected to demountability. Based on demountable, reusable buildings without a footprint, many replies to question eight were especially wood and steel as materials that would suit this kind of structure. Other commonly mentioned elements were PVC window frames and facades, because of low maintenance, and prefabricated elements such as walls, roofingpanels, and windows. The characteristics of the materials mentioned should be so that they are easy to handle, despite sacrificing durability, only two participants preferred durable but harder-to-work-with materials.

The assembly of the materials mentioned above can go down in two ways either prefabricated and assembled on site or completely built on the site itself, requiring more work in the polder. Of all the participants third would recommend building on-site, whilst two-thirds recommend prefabricated building elements. These elements would primarily be comprised of wood framing or steel structures, most of the times argued for in a combination of both of them. *'I would recommend a steel structure in combination with wood framing. A complete house can be built using these materials, and with good preparation, it would be completely demountable as well.*' Another carpenter mentioned the use of prefabricated elements, but it should stay manageable when looking into the size of the objects. A work planner added that the decision is also related to the cost, '*elements in situ can be combined with prefabricated framed elements, but only if transport and accessibility are in balance with the cost of production on site.*' Furthermore, these elements should be placed in a strong grid, to make them easier to adapt, '*Make grids, a dividable unit of for instance 300mm as a factor.*' A trend is seen in the general structure of the building in prefabricated construction, and finishing in situ, also when looking at the summary on the right page.

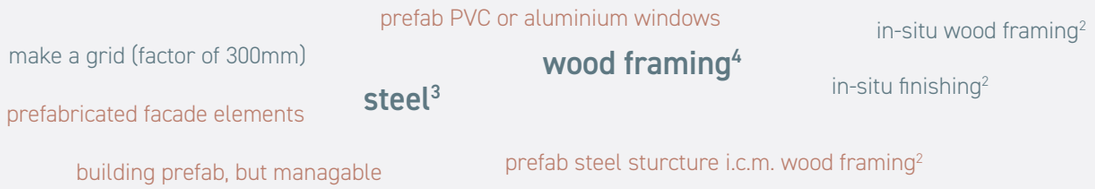
If the self-builders run into problems, a couple of recommendations are given by the professionals. They would first and foremost ask a building professional for advice, which is what they do themselves as well. Thereafter resort to the internet, followed up by contacting a contractor. A drawing office is only mentioned once, so the advice is to ask practical-oriented craftsmen instead of theoretically-oriented ones.

Q8
What materials would you recommend the self-builder for creating easy to assemble, demountable, and reusable buildings without a footprint?

Q9
Would you recommend to the self-builder harder to process but more durable or easier and less durable materials requiring more maintenance?

Q10
Would you recommend building assembling a building in prefabricated elements, or build a demountable building on site?

Q11
What particular building techniques/methodologies would you recommend for this, keeping in mind that the building needs to be disassembled?



Q12
If the self-builder wants to find information, where would you recommend them looking for? (books, speaking to professionals, social media, etc.)

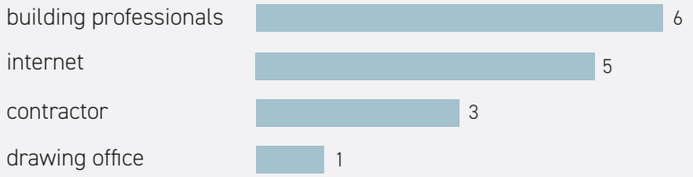


figure 07 - Results of material & demountable oriented questions

Discussion

The main aim of this research is to find out simple building methods recommended by professionals in the building industry to self-builders looking to construct their own homes. The study looked at three phases of the construction process, naming: preparation, feasibility, materiality, and demountability. The study shows a correlation between the research of Van der Vegt et al[35]. which states that self-builders require the help of a professional during the preparation of their projects. A dissimilarity is found in the person who is recommended for advice, in which the professionals allocate an architect as the main advisor, with a building supervisor on the second spot. According to the results, technical drawings should only be made by an expert, instead of the self-builder himself. The results based on the topic of feasibility indicate that the self-builder should always at least be supervised by an experienced professional. Especially structural elements and elements related to building physical installations were mentioned as too specific and hard to be installed by an inexperienced self-builder. The results do indicate that finishing can easily be done by the self-builder. Finally, the data suggest a building as a mixture of prefabricated and in situ work, primarily made up of wood and steel structures. Easy-to-work with materials is preferred, backing the research of Brown[36].

The most surprising result was the fact that building professionals would not recommend self-builders to build the complete structure by themselves. This has primarily to do with the experience of the self-builder, not knowing how to solve certain details in the structure. Also, the certifications and guarantees that apply to structural and building physical elements will not be given when self-builders install it themselves. These results would thus not fit within the theory of previous research, such as the ones by Van der Vegt et al.[37], Brown[38], Bossuyt[39], and Honyi et al[40]. The results of these researches were primarily taken from the perspective of the self-builders themselves, which might indicate that they overestimate their abilities to build a solid home. Due to the relatively small sample group of carpenters and work planners, the data could constrain the outcome of the research. A look through a broader spectrum of professionals, such as architects, technical engineers, real estate brokers, would be able to build upon this research.

Conclusion

This research aimed to find recommendations by professionals in the building industry to self-builders, for the preparation, feasibility, materiality, and demountability of their future houses in the Dutch polders. Based on the analysis of the results from a survey, professionals in the building industry recommend the self-builder to participate in the building process by helping the carpenter out on the most important parts, such as the structure and building physical elements. Other elements can be realized by the self-builder himself, with occasional advice from the experts. A demountable structure for an ever-changing polder landscape can be achieved through steel and wood structures, partly prefabricated, and partly made on the job site.

Through interviewing professionals in the building industry, a useful advice is brought to the ones who want to self-build in the future. It was expected that a self-builders would not be able to build the house completely by themselves, but a positive surprise that under supervision of an experienced carpenter they still can participate. Because of the smaller sample size further research, interviewing a more broad and diverse group of professionals would expand upon this research. This should also help filling the current research gap of research on the opinion and advice of professionals in the building industry on the self-build and DIY communities.

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List of Figures

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Hospitable Movement

2024

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Advanced Housing Design