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The diversity of data needed to drive design

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The developers of the Refugee Housing Unit know every aspect and component of their design but can never know what it is like to wake up in one of them every day. Likewise, the end user does not have the tools or resources to make comprehensive changes to its design. The point is about how to work together on it.

The Better Shelter or the Refugee Housing Unit (RHU) is a joint project of Swedish social enterprise Better Shelter, UNHCR (the UN Refugee Agency) and the IKEA Foundation. The project, initiated in 2010, was rolled out on a large scale in 2015, and thousands of shelters have been shipped to refugee camps, transit sites and emergency response programmes in Europe, Africa, the Middle East and Asia to be used as accommodation for displaced persons or as clinics, offices and storage space by NGOs.

The scope of the Refugee Housing Unit project has from the onset been to develop a significantly improved emergency shelter solution for refugee contexts in cases where use of local materials is not an option. While it is evident that there are no 'one size fits all' solutions, an understanding of end users' needs is required to inform design decisions even for a global shelter solution.

User interviews and pilot tests have been an integral part of the design efforts. While the design team is aware that the information gathered cannot be viewed as representative for all users and contexts, it has been used to make generalising assumptions about user needs at a global level. The key challenge in this process is not only to make relevant assumptions but also to balance these assumptions against more tangible and measurable requirements such as costs of production, adaptation of product design to production conditions, and distribution.

During the early phase of developing the RHU, a pilot project was set up in camps in Dollo Ado, Ethiopia, with 39 families moving into the housing units for an intensive six-month testing period, providing vital feedback to the design team. Not all of the refugees were satisfied with certain aspects of the units, like the placement of the doors

or the light levels available through the windows on cloudy days. Some manufacturing problems were also identified, and issues that arose with heavier than expected winds or strong sun. Before wider release in 2015 the shelter design was refined in response to this feedback and the units were modified to be more comfortable in high temperatures, for example, and packaged to allow for easier assembly. With several thousand shelters in use around the world, the shelters have been evaluated on a larger scale and an updated version is due to be released in 2017.

While technical testing in different climates is vital in our case, we also depend on subjective information from the individuals



UNHCR / D Corcoran

RHU shelters are being used and tested in the field by Somali refugees living in Hilaweyn refugee camp, Dollo Ado, Ethiopia.

who occupy our shelters. Retrieving their feedback in a continuous, structured manner is difficult. The developer's physical presence in the field at times is therefore essential, for technical testing as well as for further development reflecting the actual needs of the beneficiaries.

Geographical and cultural distance

How do we as a private sector partner based in Europe make sure we do not lose control over the product life cycle and user feedback after the product has left our drawing board and our warehouse, since we do not have a direct mandate with the end users, and function only as a provider of products and services? We collect quantitative data through electronically distributed surveys and through sales and distribution figures, but retrieving structured qualitative feedback from end users on personal, regional or cultural experiences requires research such as interviews, focus groups and observations which we in many cases have no or very limited access to.

Unlike IKEA's customers, the end user in a refugee or IDP camp does not make the choice of what emergency or post-emergency shelter they wish to live in. This is decided by the humanitarian organisations and/or the donors, which biases the product development towards the purchaser and donor as their voices have a channel and proximity. While they know a lot about specific end users' needs, they remain an intermediary. The same goes for our design team; trained in European design schools, we carry a certain heritage that may or may not be relevant in all contexts.

Is it at all possible to aggregate data from individual communities to inform a general truth of the shelter and human needs? To overcome this challenge we designed a shelter that is modular, letting users adapt it to their needs as much as possible. The simplicity of the design allows the shelter to function as a blank canvas for residents to treat as they please, both aesthetically and functionally. The shelter was designed, and is being continuously developed, with the end users' ability to adapt it in mind.

Lessons

Among the things we have learned from the collaboration over the RHU and trialling it with displaced people are the following:

- It is important to establish feedback guidelines and processes for end users' opinions and experiences – and to do this early on in the project. Design partners must figure out what type of intelligence they most require from the end user and operational partners in the field must make sure that they can accommodate the gathering of this information.
- Interview co-workers from all levels and departments in partner organisations to understand requirements on the ground as well as logistical and procurement processes.
- Accept that you will never receive all the feedback you want but utilise the information you get as much as possible.
- Your solution will be used in a wide range of contexts and will not be a perfect fit everywhere.
- Designers alone cannot resolve design problems – we need the support of anthropologists, sociologists and humanitarian experts to research human needs beyond the physical shelter (that is, home, community, safety, dignity).
- There is value in diversity among design partners to represent different realities in order to create a more versatile product and to ensure that the concept can be implemented in as many contexts and to meet as many needs as possible.

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