One room and a Roof

CASE STUDIES OF COLLECTIVE HOUSING IN ASIAN CITIES SERIES • JUNE 2021

When a powerful earthquake hit Balochistan Province in 2013, hundreds of remote villages in the mountainous Awaran District, which was closest to the epicenter, were reduced to rubble. Because this was a conflict zone, the government wouldn't allow international aid agencies to go in. But the Karachi-based Urban Resource Centre did go, and worked with the villagers to develop an unconventional project that capitalized on the local building wisdom and social strength in these resourceful communities to rebuild their houses, bringing in to the process only those elements the people couldn't manage themselves.

- Project: One room and a roof
- Location: Awaran District, Balochistan Province, Pakistan
- Size: 1,575 households in 25 villages
- Finished: 2016
- Type: Community-managed reconstruction after a major earthquake, with an intervention that provided only a kit of materials to help families build their indigenous style roofs.

CONTEXT, PROCESS AND PARTNERS

The area:

The remote and sparsely-populated Awaran District, in the mountainous south of Pakistan's Balochistan Province, is a place of harsh, otherworldly beauty. But it's hard to imagine a more difficult place to live. The summers are fiercely hot, and in the winter, the temperatures can drop to freezing. Dust storms sweep the grey-brown valleys all year round.

Awaran used to be an agricultural region, where crops like barley, wheat, onions and dates thrived, and livestock was raised for meat and dairy. The farms were irrigated by natural streams called *qanat* or *kariz*, which flowed down from the jagged peaks of the Koh-e-Shashan mountains. Over time, though, these streams have diminished or dried up entirely. The region's much-reduced agricultural production now depends on water from seasonal rains or from tube wells. After the 2013 earthquake, the underground water table under many villages dropped to below 250 feet (76 meters), making those scarce water sources even more difficult to access. Add to that the rising costs of electricity, fuel and fertilizers, and difficulties accessing markets. With shrinking agriculture and and falling incomes has come increasing poverty. Government reports routinely declare Awaran to be Pakistan's poorest and most neglected district. Many families now depend on remittances from family members who migrate to cities to work as laborers.

The poverty is compounded by the region's inaccessibility. In the whole of Awaran District, there is only one narrow, badly-paved road, which snakes through the Shashan mountains, from the ancient town of Bela, in neighboring Lasbela District, to Awaran's district headquarters. All the villages in the district - including those that were part of this project - can be reached only by bumpy, rock-strewn dirt tracts, and many of them have no phones, internet or electricity. Conditions haven't changed much since medieval times in these isolated settlements. To make matters worse, there is also a long-simmering separatist movement in Balochistan Province, and the Baloch rebels use the mountains in Awaran to hide and to plot their attacks on government establishments. Pakistan's security forces frequently stage campaigns to root out those militants, and violent skirmishes make many of those remote villages very dangerous places.

The earthquake:

In September 2013, Balochistan was hit by two powerful earthquakes, which devastated this already impoverished, already isolated region. Some 300 villages were affected, 825 people died, and 46,000 houses crumbled into heaps of rubble, leaving 280,000 people without shelter in the harsh Baloch climate. Apart from the loss of life and shelter, the earthquake also severely damaged the already fragile official infrastructure, with 200 primary and secondary schools being reduced to ruins. The worst damage was in Awaran District, which was closest to the quake's epicenter.

Because of the ongoing conflict in Balochistan, the government wouldn't allow any international aid agencies to work in Awaran after the earthquake, and press coverage about the disaster was sparse. Because of the region's inaccessibility and fear of attacks against non-Baloch outsiders, there weren't many local NGOs willing to take the risk of working there either. As a result, very little rehabilitation work was taking place in a region badly in need of help.

The team at the Karachi Urban Resource Centre (URC) was determined to help. In November 2013, two months after the quake, they drove to Awaran to check out the situation and to see what they could do to help. It takes about seven hours to reach Awaran from Karachi, and it's a harrowing, bone-rattling journey. Once the team from the URC got there, staying overnight in those villages was a risky affair, since outsiders are viewed by both the rebels and the soldiers as suspicious and might be killed. Only Muhammad Younus, the URC's director, was from a Baloch background and could speak the local language fluently. The other non-Baloch members of the team were in real danger, and on later trips, when the project got underway, the URC made sure that only Balochi-speaking people visited the projects.

On that first trip, the URC team found a dire situation. In every village they visited, all the houses had been completely destroyed by the earthquake, and a few canvas relief tents were the only shelter people had against the harsh climate. But they also saw that many families had already begun building new houses, using mud blocks and stones salvaged from the rubble. Everyone was taking part in the rebuilding - men, women and children - and evidence of a durable self reliance and mutual assistance was everywhere.

The resourceful people in Awaran have always built their own houses, using time-tested indigenous techniques and materials that are available close by. They use local stone, sun-dried mud blocks or wattle-and-daub for the walls of their houses, which they plaster with mud, and use timber, bamboo and palm leaf thatch for the pitched roofs. Inside the houses, they often fashion beautifully ornamented niches in the walls

and cantilevered shelves for storing crockery and utensils along the top, where the walls meet the roof. These mud houses stay warm and cozy when the freezing winds whip down from the mountains in winter time, and fairly cool in the unforgiving summer heat. The palm thatch is also remarkably effective at shedding rain. For most of the families, the house is just a single room, and the houses are grouped together in extended family compounds that are encircled by mud-plastered walls. When a son grows up and gets married, a new one-room house is built for the young couple within the family compound. That's how people in Awaran have lived and built for eons.

After the quake, the wall reconstruction was clearly something that the people could manage themselves, and they had most of the materials they needed right at hand. But rebuilding the roofs was another matter. In some cases the materials were not available locally at all, and in all cases, the big demand for roofing materials after the quake had driven the price of materials like bamboo poles, wooden timbers, palm thatch and plastic sheeting way up. For poor families especially, the cost of materials made a new roof out of reach. In the discussions about reconstruction the URC team had with families in different villages, the villagers all agreed that their greatest need was for roofing materials. They could manage the rest of the reconstruction.

So the URC went back to Karachi, raised some donor funds and then initiated a community-led process in 25 of the worst-affected villages in Awaran District. Their project would tap and build on the self-reliance and collective spirit they saw was already in action in these disaster-hit villages, and would add the piece that was missing from the rebuilding that the villagers were doing very well by themselves - the roofs.

Borrowing the "One room and a roof" strategy:

In deciding to focus its rebuilding assistance specifically on the roofing, the URC was borrowing a strategy that had been developed by the Orangi Pilot Project's Research and Training Institute (OPP-RTI) a few years earlier, in its work helping thousands of villagers in Sindh and Punjab provinces to rebuild their houses after the catastrophic Indus River floods of 2010. Those floods had destroyed houses, washed away crops and cattle and submerged large swaths of the country for months, leaving some 20 million poor villagers homeless. When families began leaving the relief camps and returning to their ruined villages, the OPP-RTI's project helped them to build a one-room house with a proper roof over it, so they could have a safe and sturdy place to live, out of the elements, as they began the long and arduous task of rebuilding their devastated houses and villages. A lot of learning came from that project.

As in Awaran, they found that most families could build the walls themselves, using mud or bricks salvaged from their ruined houses, with simple mud mortar. But the roofs were more difficult, without any materials. So the OPP-RTI and their local partner NGOs provided kits of materials to help families cover their self-built rooms with sturdy roofs. Instead of providing standard tin sheets, which would have turned houses in that hot, arid place into furnaces, their kits contained materials to build the traditional roofing systems made of timber, bamboo, reeds and mud. These were the kind of roofs people there had built for centuries, which are strong, well-insulated, easy to repair and can be constructed with cheap, locally-available materials. The materials could be delivered in a truck to each family, as a ready-made kit of parts, so all they had to do was assemble it on top of their four walls. The whole thing could be finished in a day. The materials to cover a 4.5 x 4.5-meter room with this roof cost about US$ 200. Within a year, the OPP-RTI had been able to help 10,894 families, in 1,023 flood-hit villages, to build their "one-room-and-a-roof."

The community process:

In the earlier "one room and a roof" project, in the Indus River flood region, there were lots of local NGOs to work with OPP-RTI as implementing partners, to manage the project on the ground. But in Awaran, the URC team didn't have any local partner NGOs or organized community groups to manage the project locally. So they had to find ways of tapping the already-existing social strength of these tightly-knit villages to implement the project. The whole process was organized and managed collectively, by the villagers. The URC's role was limited to providing the roofing materials and helping to supervise the construction work.

The process began with setting up a central committee of senior community leaders from around the Awaran District. This central committee surveyed the damage and drew up a list of 25 villages that had been most badly-affected by the earthquake and were in most urgent need of help. Those villages were then invited to form their own committees to survey the needs in their community and draw up lists of the poorest and most vulnerable families, to be supported by the roof project. Since everyone was in need, but the project could not support all, this collective process of identifying the families in greatest need was crucial. The central committee visited each selected family to verify that they needed the support. On the basis of the recommendations of the village committees, the central committee would then approve the support for roofing materials and forward lists of selected families to the URC's monitoring team.

The building materials were then purchased and transported to a central location in each village. After making the long journey from Karachi, the trucks loaded with roofing materials would often arrive in the wee hours of the night. The city folk from Karachi were all worried that without any security guards to protect them and the whole village asleep, the materials would be stolen from the open ground where they were unloaded. But not a single case of snatching took place, and the whole distribution process proceeded so smoothly that the URC team was astonished. In the morning, the families would visit the committee member responsible for distributing the roofing materials, who would check their names on the list. Then the families would collect their share of the materials and transport them back to their house sites, using camels, donkey carts, borrowed pickups or other means. If someone found that their name was not in the list for this load, they would ask to get on the next list.

The village committees supervised the construction work, from beginning to end, with the URC providing technical assistance when needed. The central committee made weekly visits to the construction sites, and were responsible for documenting the progress by taking photos, checking construction quality and monitoring the use of materials. It took up to four weeks to complete each house, and 25 to 50 houses were built together, in batches, with a lot of neighborly sharing of labor and materials. In several of the villages, there were poor widows and elderly couples who couldn't build their foundations or walls. The villagers collectively supported those vulnerable households by pitching in their money and labor to build new houses for them.

By the end of 2016, 1,575 houses, in 25 villages, had been built. The "one room and a roof" was just a beginning for these families. After completing the houses, the families were quick to develop spaces in front of the house for evening activities - family gatherings, sharing meals and outdoor sleeping. They also quickly added bathrooms, open kitchens at the side of the houses, and shelters for goats and chickens. Some families also started planting trees around their houses.

CONSTRUCTION PROCESS

Most of construction work was done by the families themselves, and even the women and children pitched in. Some better-off families hired local masons to build their houses, and many of the masons made their own mud blocks on the site. The village committees had a few trained masons to assist families and supervise the construction. The URC helped put together a simple set of guidelines about room size, wall height and roof slopes for all the families to use. Since all the construction techniques and materials being used were well-known and indigenous to the region, there was not much problem for families to handle the construction work.

The walls the families and local masons built followed a few different construction systems, all of which were invented locally and use materials available nearby. In one wall system, the families put up reinforcing frameworks of crisscrossing bamboo poles that are tied together with rope, then covered those frameworks with mud and sun-dried mud blocks, wattle-and-daub style. Some families who couldn't afford mud walls just yet or needed their shelter more urgently used an even faster wall system in which a combination of palm leaves and woven palm mats were tied onto the bamboo framing. Another heavier and thicker wall system was built with sun-dried adobe mud blocks made on the site, laid with mud mortar. Another thick wall system used some combination of mud, mud-blocks and stones. All but the palm leaf wall systems were then plastered over, inside and out, with a smooth layer of mud that had been mixed with wheat straw or grass fibers. These natural fibers make the mud harder, more stable and more waterproof.

Double-pitched roofing: Before the earthquake, some of the houses in Awaran had flat roofs, built on a structure of heavy timbers with layers of mats, reeds and mud plaster on top, with a slight slope to drain water. But all of those flat roofs collapsed in the quake, and many people inside those houses were killed by the falling roofs. Houses with double-pitched roofs made of light-weight bamboo and palm leaf roofing, however, remained intact during the shocks of the earthquake. And when they did collapse, nobody in the room below died. It came as no surprise then that after the earthquake, nobody was interested in building flat roofs. So the URC's support helped the villagers to build those traditional light, double-pitched roofs.

The URC's kit of roofing materials cost US$ 250 per house, and included all the materials families needed to assemble a light, double-pitched roof over the 24 square meter rooms they had built themselves. Here is how the roofing system worked:

- **Ridge beam:** Traditionally, the people in Awaran would use a hefty wooden beam at the ridge of their double-pitched roofs, to carry the the load of the roof across the room below. But nowadays, such long timber beams are very costly and hard to find. So in the roofing kit, the URC team replaced the ridge beam with a standard steel I-beam, of the kind commonly used in cities for pre-cast, low-cost roofing systems. The steel I-beams are easily available and can be cut to any length.
- **Bamboo frame:** Then a light structure of crisscrossing treated bamboo poles, of various thicknesses, was tied together to make the frame which held up the roofing materials and distributed the load evenly.
- **First layer of wild palm fronds:** First a layer of dry wild palm leaves was arranged in decorative, overlapping patterns and tied down to the bamboo frame, with a special technique that makes the pattern visible in the room below. These leaves come from a species of wild palm called *peesh* that grows in the mountains of Awaran. The *peesh* help keep water out of the room when it rains and also act as an insulating layer, greatly reducing the transmission of the scorching heat into the room below.
- **Second layer of woven palm leaf mats:** A layer of woven palm leaf mats was then tied onto the top of the bamboo frame with rope. The mats are made locally, but after the earthquake, the high demand for them led to supply shortages, so the team had to bring them in from other cities.
- **Third layer of plastic sheeting:** Some families added a layer of plastic sheeting tied on top, to keep the water out. But since gusty winds made it very difficult to put up these plastic sheets, and often tore them apart once they were up there, many families didn't use them.
- **Small overhang to protect mud walls from rain:** To protect exterior walls from heavy rains and erosion, the families all projected the roofs a little beyond the walls, on all sides. This allows rain water to drip directly down to the ground without touching and eroding the mud walls.

Difficulties:

Because these villages are in such a remote, mountainous region, with limited electricity and with only very spotty mobile phone networks, communications between the communities and the URC project team were very difficult. Since the project budgets were modest, and the URC team wanted to spend as much of the money as possible on roofing materials, there wasn't much left to pay for frequent field visits or for setting up a local office. The only way the team had to communicate with the villagers between visits was by hand-written letters, in the Balochi language, which were sent almost daily through the informal postal service that piggy-backs on passenger van services running between Awaran and Karachi. Since it was not possible for the URC's monitoring team to visit each family being supported by the project, teams of volunteers in each village were organized, given simple point-and-shoot cameras and trained to photograph and document the progress of each house - and they carried out this work very well.

Transporting roofing materials from Karachi to Awaran was another major difficulty, since most truck drivers refused to venture into those remote and dangerous mountains in Awaran. Fortunately, an old friend of the URC, who had a small transport business and a brave spirit, agreed to dedicate his two trucks to the work.

Project timeline:

- **September 2013:** Two consecutive earthquakes hit Balochistan, affect Awaran District badly.
- **November 2013:** URC and TTRC team make their first exploratory visit to Awaran District.
- **December 2013:** URC project starts in 25 worst-hit villages, building about 50 houses per month.
- **December 2016:** Project ends. 1,575 one-room houses are completed.

Support groups and partners in the project:

- **The Urban Resource Centre (URC)** was established in 1987 by socially-conscious architects, academics, and professionals and community-based activists linked to the Orangi Pilot Project (OPP). The URC's objective is to make urban planning and development more equitable and inclusive, by involving low-income and marginalized communities in the process of knowledge creation and development planning. To do this, the URC collects and disseminates information about the city and its plans, analyzes local and national government plans from the point of view of low income communities and interest groups, and organizes public forums which bring together all stakeholders to discuss the city's problems and plans and achieve a broad consensus about how to interact with them.
- **The Technical Training Resource Center (TTRC)** is composed of young men and women from the Orangi community in Karachi who are trained to provide technical assistance to communities doing mapping, surveying, planning, cost estimating, house design, drainage and construction. The TTRC works closely with URC and OPP, and provided technical support in the Awaran project.
- **Asian Coalition for Community Action (ACCA)** was a five-year program of the Asian Coalition for Housing Rights (ACHR), which supported a process of citywide and community-driven slum upgrading in 215 Asian cities, between 2009 and 2014. The ACCA program provided partial funding for the URC's "One room and a roof" project in Awaran District.

- **The Selavip Foundation** and **Misereor** are European donor organizations which provided funding support to the URC to implement the project, with a lot of flexibility and trust.

LEGAL FRAMEWORK OF THE PROJECT

Land tenure:

Every family in these remote villages in Awaran District has its own piece of land (usually 500 - 1,000 square meters), which is owned collectively by the brothers, sisters, uncles and cousins of the extended family who share that land. Every family has its own one-room house. When a child grows up and reaches the age of marriage, the parents start building a separate one-room house for the young couple within the family compound. This process has been going on for ages now.

Government support:

The government did not directly support this project, but at a later stage, the government initiated its own rehabilitation program, which provided many families with solar panels and hand pumps.

PROJECT FINANCING

Project costs and who paid for what:

At the time of the project, the cost of building a typical mud-plastered one-room house (5.5 x 4.3m) in Awaran District could cost as much as US$ 600, if the family had to hire a mason and buy all the materials. That $600 includes:

- Foundation: US$ 100
- Plinth and floor: US$ 50
- Walls: US$ 200
- Roof: US$ 250

If some of the materials were available onsite and the families could do the building themselves - as many did - the cost was much lower. In this project, the families covered the cost of building the foundation, plinth, floor and walls themselves, using their own savings and resources, and the URC provided only the materials to build the roof, which came to US$ 250 per house x 1,575 houses = US$ 393,750. These funds came from grants from four sources:

- 425 roofing kits were funded by ACHR's ACCA Program
- 400 roofing kits were funded by the Selavip Foundation (through ACHR)
- 450 roofing kits were funded by Misereor (through OPP)
- 300 roofing kits were funded by the URC's own resources.

The URC team wanted to support more families with roofing kits, and the needs were still there, but in the last few years of the project, the Pakistani rupee kept falling and the fluctuating exchange rates made the cost of everything go sky high.

The Awaran villages have their own traditional form of collective saving which they call *Bachat Committees*. In that system, a group of 10 - 40 people form a group and start saving a fixed amount of money together. The families use that saving for variety of purposes, including education, marriages, health emergencies and other household needs. Many families used their Bachat savings to help pay for the rebuilding of their houses after the quake. Besides providing a much-needed financial resource, there saving groups are very effective in building a network within communities and providing a platform for collective thinking and sharing on problems families in the village may be facing.

IMPACTS OF THE PROJECT

The project in Awaran District demonstrated a quick, practical, inexpensive and community-driven reconstruction model that worked very effectively in a situation where families had lost almost everything in the earthquake. At a time when the government's conventional rehabilitation projects force people to build extremely expensive, reinforced concrete houses that are not suitable for the climatic conditions, this project made use of traditional wisdom that is already there, and promoted the use of indigenous construction materials and techniques that people already understand and can build themselves, without any special

training. These indigenous building systems and construction techniques were not something anyone learned in a university, but represented centuries of refinement and adaptation, and produce houses that are comfortable all the year round. Many NGOs in Pakistan are now replicating this "one room and a roof" project in other disaster-hit areas.

The process of collectively rebuilding their ruined houses helped to strengthen community relationships and mutual-support systems in these isolated disaster-hit villages. The families helped each other throughout the entire construction process. The project is also concept of self-help, many other families who did not receive support from this project started rebuilding their houses on self-help basis without waiting for the government. As houses were being reconstructed so efficiently therefore the government shift its concertation from house construction to infrastructure building such as provision of drinking water, solar panel, road construction etc.

FOR MORE INFORMATION ABOUT THE PROJECT

This case study was written in May 2021 by Muhammad Younus, the director of the Urban Resource Center in Karachi. Please follow this link for more about the Awaran earthquake rebuilding project:

https://urckarachi.org/awaran-earthquake-rehabilitation-project/#/UIG?rmg_playlist=0&rmg_item=6

For more information about the project, or about URC's work in Pakistan, please contact:

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PHOTOS

There is only one proper paved road in the whole of Awaran District, and it snakes through these jagged Koh-e-Shashan mountains.

In every village the team visited, almost every single house had been reduced to a pile of mud and stone rubble, and the people had only a few canvas relief tents to provide shelter against the extremes of the harsh weather in the Awaran region.

All the villages in the project could be reached only by dusty dirt roads like this one, which rattle the bones of whoever drives along them.

When the team from URC arrived in Awaran on their first trip in November 2013, this is the kind of scene they encountered in almost all the villages they visited.

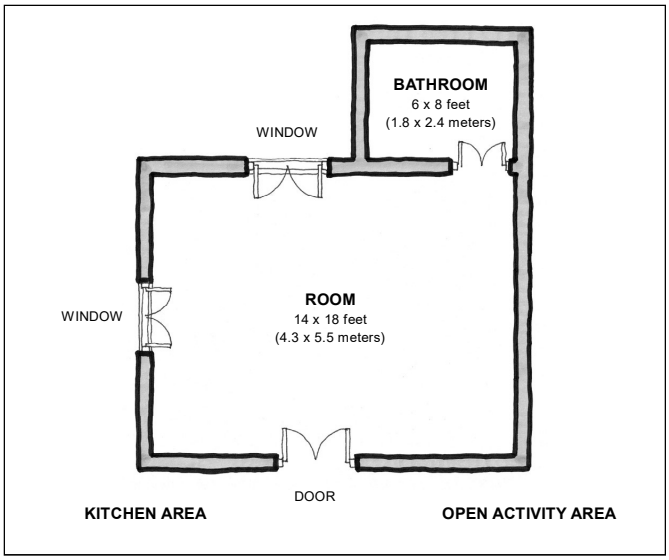
The people build their houses from materials available locally, like stone, mud and a little timber for the roofs, doors and windows. Many were killed by heavy flat roofs collapsing and crushing the people inside the houses.

When the URC team first came, they found many families still sifting through the rubble to find useable materials for rebuilding their houses.

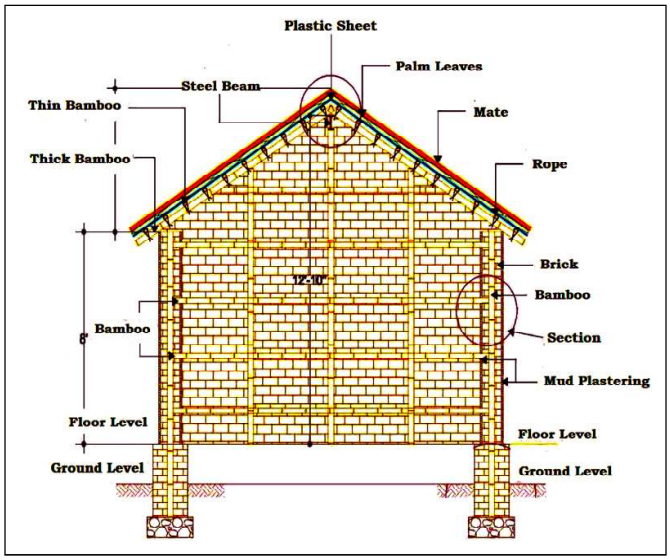
In this photo, you can see where families have begun to make piles of useable adobe blocks and other building materials salvaged from the rubble.

Here one family has pulled out some bedding and utencils from the ruins of their old house and set up a platform for making a tent.

This family uses a carrom board as a make-shift door to their tent. In the background, you can see the family compound wall is being rebuilt.



Most families in this region live in one-room houses, with a lot of household activities taking place outside the house.



URC's drawing shows how the pitched roofing system works, along with one traditional wall system made of bamboo-reinforced mud blocks.

The roofing materials were brought in by trucks and unloaded in a central area, where the people in each village could pick up their share of the materials. It was difficult to find transporters willing to come into this remote and dangerous area, but an old friend of the URC's agreed to dedicate two of his trucks to the project for a few years.

Some of the village goats are inspecting piles of the steel I-beams that will be used to make the ridge beam of the new roofs.

These are the treated bamboo poles, in various thicknesses, that will be used for both the roofs and some of the walls.

These woven palm mats have been used to make roofs in Awaran for centuries, but after the quake, there was so much demand for them that they had to be brought in from other places.

These palms that are so important for the roofing systems are called "Peesh" in the local language, and they grow wild in the mountains of Awaran District.

Some families added a layer of this plastic sheeting on top of their roofs, to make them even more waterproof. But the gusty winds made it hard to put the material up, and many families decided not to use it.

When the roofing materials arrived, the families would gather and the village committee would check to make sure everyone on the list got their kit of roofing materials.

All sorts of interesting forms of transport the families used to bring their roofing materials back to the site of their new house construction. A bright blue donkey cart on the left and a highly ornamented auto rickshaw for hire on the right.

These two photos show one of the roofing systems the people in Awaran used to rebuild their houses after the quake. This was one of the quicker and lighter systems, in which mud and mud blocks (both newly-made and salvaged from the rubble of their old houses) are packed around a reinforcing framework of treated bamboo poles tied together with rope.

Here the bamboo-reinforced mud block walls have been completed and are ready to be plastered inside and out with mud.

Here the walls have been plastered with mud mixed with wheat straw or grass fibers, to make it harder, more stable and more waterproof.

These photos show some new adobe mud blocks being made to construct a wall. The mud is mixed with natural fibers like wheat straw and dried grasses to bind it and make it stronger, then the blocks are dried in the sun.

Here one of the heavier, thicker walls is being constructed, using some mud blocks salvaged from the rubble and some newly-made on the site by the mason.

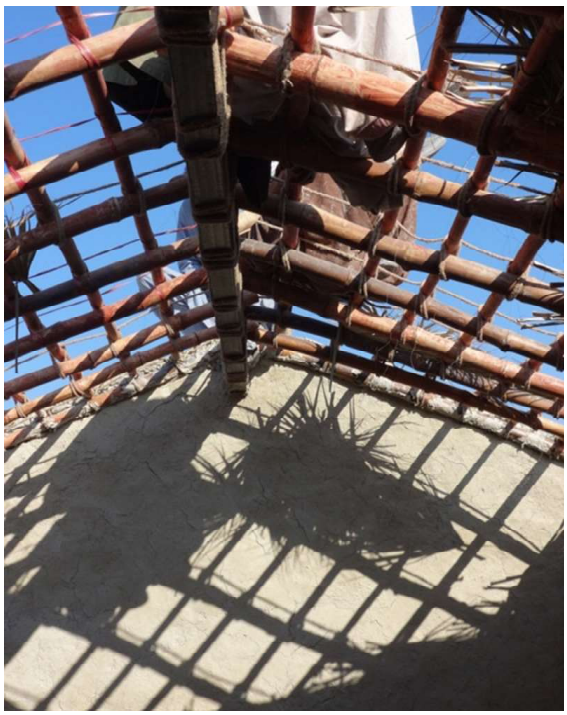
Another thick mud-block wall going up, reinforced by vertical timbers and using a wooden window salvaged from the old house. You can see some ornamental niches set into the back wall.

A bathroom being built onto the back side of a house, using the thick-wall system, with mud blocks and fiber reinforced mud mortar.

For the village masons and house builders in Awaran, the human hand seems to suffice nicely, in the absence of fancier tools.

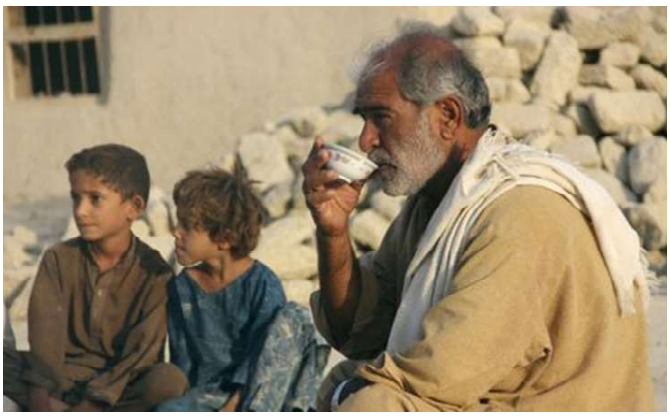
Here is a thick-walled house made of mud blocks all ready for the final plastering, before the new roof is put on.

This is another house type that was built by families who could not afford a mud-walled house yet but urgently needed shelter. In this system, palms and palm thatch are tied to bamboo frames to make quick, light and well-insulated walls.



The first step in roof building is to erect a criss-crossing framework of treated bamboo poles, of varying thickness, tied together with rope.

The wild palms are tied in such a way as to create an overhang along all four edges of the roof, to prevent rain from dripping down the mud walls.



A mason takes a break from the construction work to have a thoughtful cup of tea, in the company of some watchful children.

The first layer of roofing is made of "peesh" wild palm leaves that are tied to the bamboo frame in decorative overlapping patterns that can be seen and admired from the room below.

On top of the wild palms, tightly woven palm mats are tied down with stout rope to keep everything in place in the fierce Awaran winds. Some families added a layer of plastic sheets on top, but for most, this is the completed roof.

The URC team talking with villagers in a crisp Awaran dawn. That's Younus in the rose-colored kurta and Siraj Uddin in crisp white.

Some of Awaran's junior beauties happy to pose for a photo in their festive best, with vivid scarves and elaborately embroidered kameez.

It's a harsh and difficult place to be a child, but children are everywhere in Awaran. And the good news is that they are sometimes treated to a visit by the ice lolly man, on his motorcyle.

More children in their embroidered finery, posing in front of their snug new house, which will keep them comfortable in all seasons.

Another completed house, with one of its elder sons posing proudly in front. Note the little solar panel on top, which can power a light and a fan.

Inside one of the completed houses, in which you can see the beautiful pattern of overlapping "peesh" palms in the roof above the bamboos.

People's belongings are pretty spare in Awaran: some clothes, some bedding and some proudly displayed crockery and cooking utencils.