



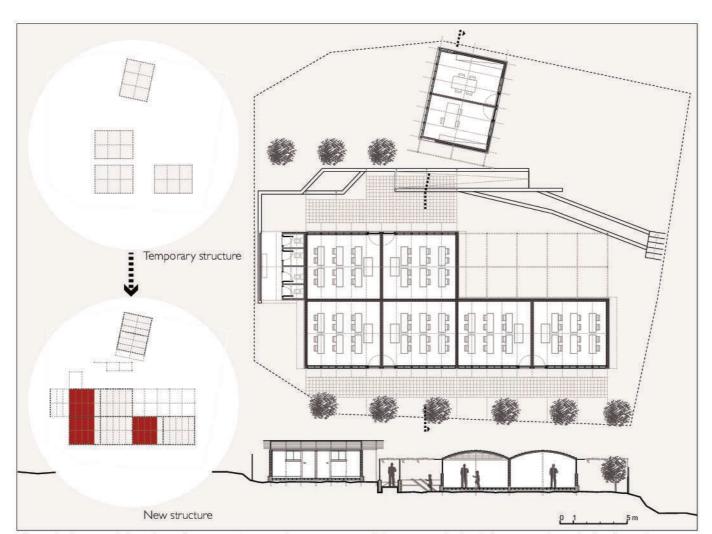
The school increases from 3 classes to 6 adding new services and teachers rooms, with no use of new land and reuse of materials in place.



Public toilet have been improved. Shaded and with natural lighting and have been relocated closer to the main building.



The flexibility of the system easily allows for extensions, encouraging appropriation of the space from the community.



The existing conditions have been used as precious resources. The external circulation uses the existing irregular landscape to create paths and communal gathering areas available to less agile minorities.

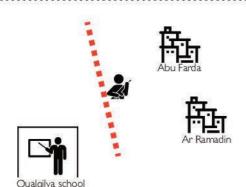


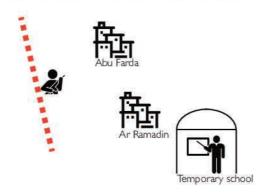
## PROJECT DESCRIPTION

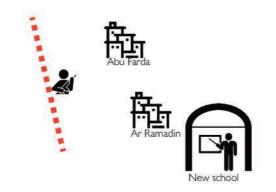
The new school succeeded in giving a quality space for lessons to the community of Ramadin. The existing school consisted of a group of 4 temporary tents, inadequate structures for learning. The intervention expanded the existing volume by 60%, reinforced the original iron structure and ensured better thermal conditions with natural insulation materials. The main challenge was to act as discretely as possible, holding costs and energy expenditure low without giving up on quality.

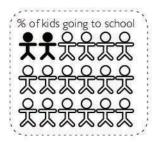
The value of the project is also founded on the dissemination of knowledge to the local community, which participated in the construction and learned how to maintain the building. Environmental and economical sustainability were guaranteed by the use of natural materials such as local soil. The renovated spaces were easily available for disable minorities. The flexibility of the design allowed for further expansions. Finally the integration in the landscape happened as a natural consequence of the construction process.

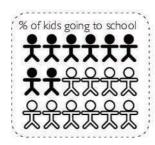


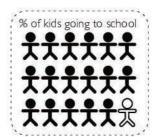


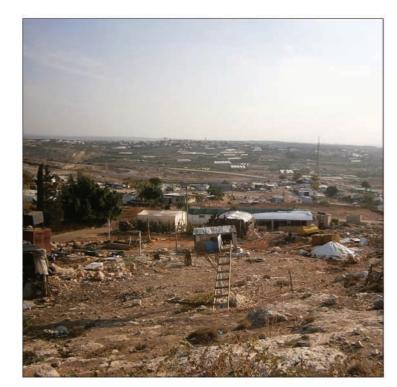












Al Ramadin and Abu Farda context in the seam zone of the Qalkilya Governorate, between the separation wall and Israel.



Al Ramadin temporary school. Most students from Abu Farda are not sent to school because of the inadequate conditions.



Al Ramadin new school under construction. The number of students has already increased. (6 classes, 6 teachers).

## SOCIAL AND TERRITORIAL CONTEXT

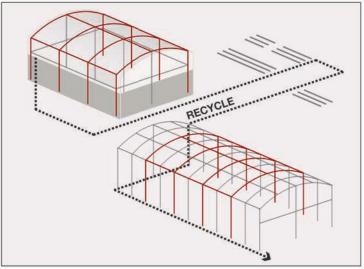
Cooperate for fair and sustainable development initiatives in active collaboration with disadvantaged people or communities. this process shall follow principles of human solidarity, non-discrimination and will be aimed at promoting their self-sufficiency

The Bedouin village of Ar Ramadin is situated in the "Seam Zone" of the Qalkilya Governorate, between the separation wall and Israel. Around 80 students from Al Ramadin and 40 from Abu Farda crossed the border to attend school in Qalqilya and Habla city, adjacent villages. The Habla check point was very tough on many children who faced difficult situations such as long waiting and body search on a daily basis. As a result, the level of drop-out students increased.

As a consequence the community of Ar Ramadin set up a temporary primary school (3 classes + I teachers room). The community of Abu Farda decided not to send their children to this temporary school due to the inadequate structure for learning purposes. The low impact rehabilitation project doubled the number of classrooms, created decent practical spaces suitable for education. This allowed more then 70 Bedouin students from both villages to comfortably attend school.







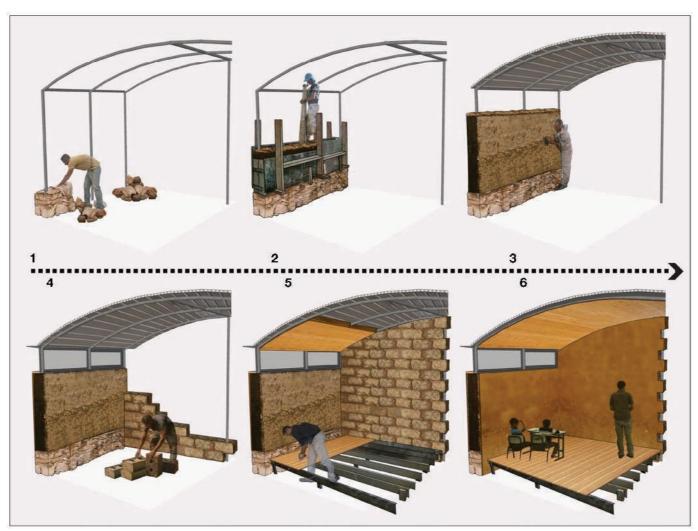
Building strategy: the existing metal tube structure is entirely recycled and further reinforced to form the base for the new school.



Self-construction process with local community, which gains construction skills and knowledge is facilitated by a construction manual of the used techniques.



Construction of Pisé walls around the iron structure of the tents by arranging disposable formworks.



Local stones form the basement, Pisè walls made of straw and mud form the exterior walls, lightweight earth bricks made on site for internal partition, wooden ceiling and pavement and clay and lime the plastering.







Low-tech, local materials and community participation are the strong points of the whole project. Thanks to the construction manual the builder will be able to replicate the above described building process.

## CONSTRUCTION PROCESS

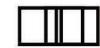
Facilitate the use of appropriate technologies, materials and labour adequate to local values, to the cultural specificity and responsive to the natural environment.

The works were carried out as self-construction by the local community (including skilled people) supervised by ARCò. This process was essential as it provided both a building and a new know-how for the community, which was directly involved in the process, from the design to the construction. ARCò produced an instruction booklet illustrating the techniques to be utilized. This way the community would be able to maintain the new schools and, eventually, to build new similar structures.

The iron tubes were re-used as a way to recycle materials that would have otherwise ended their life cycle. The new intervention was realized with natural and low-impact materials. Earth and straw composed walls and partitions with two different techniques: Pisé (a mixture of straw and mud compressed in formworks) and natural masonry (lightweight air dried bricks constructed in place). The ceiling and pavement were realized in wood, while the plastering was made of clay and lime.









Standard temporary tents for state of emergency: 3 classes and 1 teacher's room



The community of Ar Ramadin has set up temporary tents. These are not considered adequate conditions for teaching purposes.



New permanent school with 6 classes, 2 teacher's room and toilet services. The specific strategy can become universal. It reuses and reinforces the original structure, transforming it in permanent spaces.



The quality materials increase inner comfort leading to a net improvement of the living conditions. The roof adjustments bring back a natural air flow for a pleasant internal environment

## TRANSFORMING EMERGENCY INTO DEVELOPMENT

Endorse the integration of post-emergency relief interventions into long-term sustainable development strategies.

The aim of this project was to create an opportunity of development in an emergency situation. In fact tents were a standard typology, designed to be temporary but very often ended up remaining permanent solutions. The system developed could be reproduced by the community of Ar Ramadin as well as by other communities facing similar problems.

The strategy involved re-using the existing structure. The iron tubes were filled in with permanent low-impact external walls replacing the inadequate tents. New internal partitions were introduced to increase the building performance. The roof was properly insulated and slightly modified allowing for internal natural air circulation and further external shading. The building profile was carefully readapted, while the living conditions improved dramatically.

This approach was able to transform emergency actions into development actions with a minimum amount of funds. This method would be more effective if scheduled since the beginning of a humanitarian action.