PILOT PROJECT FOR THE RESTORATION OF VERNACULAR DWELLINGS IN RINCON DE ADEMUZ, SPAIN / PROGETTO PILOTA - RESTAURO DELL'ARCHITETTURA VERNACOLARE AD ADEMUZ, SPAGNA
FIRST STEPS IN RESTORATION WORKS
The first stage of restoration has been performed on the functional rehabilitation of the walls, girders and roof of the house under study. Lack of maintenance of the building had led to leakage, the cause of all the problems in this kind of humble architecture, with the ensuing wetting of gypsum structural piers and vault frames, rotting and wormwood in girders, purlins and joists and weakening of the masonry walls on the ground floor, whose mortar grouting was a simple mixture of mud and straw. The masonry walls on the ground floor of the house, the backbone of the building’s whole structural system, were in a very poor state of repair. The wall in the east side of the south facade, badly clad with two layers of rubble, because, before the extension, the east part of the house had originally been a wall around an open stockyard and not a load-bearing wall, was swollen and misshapen. Also, one of the three walls perpendicular to this facade, which give the house stability against the thrust of the buildings attached to the floor above, specifically the central one, had crumbled and collapsed on the ground floor, weakening its inertia. In the first place, all the south facade was underpinned from the ground floor to the roof. Later, the downstairs wall was dismantled and rebonded in alternate strips, the fallen wall perpendicular to the facade was rebuilt and the jams of the east facade were strengthened by remaking them from the foundations to the lintels. Furthermore, the three walls perpendicular to the south facade were regrouted with mortar lime with sunken joints all the way up, to guarantee stability and inertia against the thrust of the adjacent houses. The idea was to recuperate the structural and waterproof function of the roof, which was in a very precarious state of repair, while applying thermal insulation and the same additional waterproof protection as a contemporary tiled roof that would not require constant maintenance works. To this end, the roof was dismantled, the damaged beams and purlins were replaced, the layer of wattle was replaced or folded over where necessary, a layer of raw gypsum was spread over it, a coat of transpirable waterproof fabric and a layer of expanded polystyrene was placed on top, and finally the recuperated tiles were set in place with a mixture of mud, straw and lime.

I PRIMI PASSI NEI LAVORI DI RESTAURO
I primi lavori di restauro si sono concentrati sullo studio per la riabilitazione funzionale dei muri, travature e del tetto. Nel corso del tempo, la mancanza di manutenzione ha portato a questo stato di conservazione dell’edificio, inalcanzando le condizioni interne e quelle esterne.
Si sono evidenziati molti problemi strutturali sia al piantarreno che ai piani superiori con il collasso anche di alcune parti del tetto. Gli interventi hanno riguardato principalmente la facciata sud, che versava in pessime condizioni e poi la scala, che è stata smontata e ricondizionata, le parti crollate sono state ricostruite in modo da garantire stabilità e rinforzare i muri adiacenti con le altre abitazioni. L’idea è stata di recuperare la funzione strutturale e l’impermeabilizzazione del tetto, che era in uno stato di conservazione molto precario, quindi con l’applicazione di un isolamento termico alla struttura la manutenzione richiesta dovrebbe essere meno costante. Quindi, il tetto è stato smantellato, le travi ed i tralicci rovinati sono stati sostituiti così come il graticcio, e poi è stato inserito uno strato di isolamento traspirante e quindi le tegole recuperate sono state riposizionate con terra, paglia e calce.

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