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Rural building methods

The techniques used by **the builders of yesteryear**, using local materials, shows just how clever they were. **By using what could be extracted locally from the ground and underlying rock**, they reduced transport costs. Their buildings may have been simple, but they were well designed to keep the rain and rising damp out, and well-insulated to keep the heat in and make the most of heat from the sun.

Efficient materials, from white chalk...

The tunnels dug into **the nearby hills were used by British soldiers in WW2**, and later as an adventure ground for the village's youngsters. But historically, they were made and quarried for construction purposes. These chalk hills were a prime source of the **white stone** used to build simple rural dwellings and other more noble constructions, as can be seen all round the village.

There are many examples of its use in the village, such as this gable end exposed to rain from the west and protected by a **wambergue**. It extended above the roof and prevented the tiles from being lifted by the wind. For the terraced houses in the village centre, it slowed down the propagation of fire via the thatched roofs. This technique combines **blocks of chalk and brick coping** along the slopes of the gable. As chalk is porous, this wall would be seated on a flint bed which is more resistant to damp. East-facing gables were generally made of cob. And **at the apex of the roof, a sculpted stone finial** would complete the design.

Sculpted stone finial at the apex of a wambergue gable (photograph by Mathilde Duval, coll. CHHP 2022).

... to cob.

If you now turn to the other side of the street, you will notice that **most of the houses are perpendicular to the road**. Just a builder's whim? Not at all! This configuration provides a better shield from the wind and follows the slope of the road. **All the windows are south facing** which leaves the north wall bare of windows but makes best use of natural sunlight. The cob used to insulate the walls is made of **clay earth**, which was readily available, and **straw**. This composite material is used to fill in the spaces of a **wooden frame** and is protected from rain and mould by a **lime wash**. It provides optimal **insulation** of the building.



A rouge-barre wall at the back of this cob-built house has been renovated: this brick-laying technique alternates a row of stone with three rows of brick (photograph by Mathilde Duval, coll. CHHP 2022).



Inside, the dwarf wall is made of brick, with a stringer on top supporting the wooden frame (photograph by Mathilde Duval, coll. CHHP 2022).



What made you decide to renovate your house using these old methods?

I am a great supporter of environmentally friendly materials, and our ancestors were expert in these! So, we wanted to keep the house's traditional design. Cob is a sustainable, economic, and highly efficient material: in winter, even if it is -1°C outdoors, the temperature inside is never below 10°C!

Front wall of house made of cob (photograph by Mathilde Duval, coll. CHHP 2022).

This building received aid from for the Maisons paysannes de France voluntary organization in 2013. **Keen conservationists and lovers of traditional architecture**, the owners used these traditional materials in the renovation of their house, thus contributing to the protection of cob buildings in Acquin.