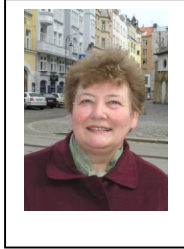


## **The Earthen Architecture in Czech Republic 2005**



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### **ABSTRACT**

#### Objectives

The earthen buildings have a long tradition in our country, tradition which ended in the beginning of the 20th century. Greatest expansion of the use of clay in buildings was in 17th and 18th century, in the time of big fires. Clay was used as a thick coat of plaster on wooden constructions; from clay were produced earth bricks and earth mortar for stonework. On the other hand, rammed earth was not used very often. Till now there are some barns made by very old technology called opus spicatum.

A new era in the use of earth as a building material is starting just now. The new environmental trends brought about a changed in viewing of earthen material. More and more people find clay to be a good natural material and use it as a lining or plasters in the interiors of their new houses. The owners of old buildings, who until recently felt ashamed for their earthen houses and thought that the best course of action was to get rid of them, are now changing their opinion. They are no longer pulling down earthen walls and replacing them with bricks or concrete walls. They started to repair their buildings and are happy that they own a real clay house. The objective of paper is to introduce typical earthen old buildings from the Czech territory, main types of their failures and methods of their repairs.

#### Methods

Nowadays, earthen houses are usually found in villages and at the outskirts of towns. However, we can find them also in town centres as two or three storied buildings. In such cases the earthen material is a cause of many problems. Main failures of clay houses in villages and in towns were gathered during many years of work. Methods of repairs are different and depend upon type of house, level of technology etc.

#### Conclusions

Quantity and quality of repairs and reconstructions of old clay houses are tightly connected with the level of common knowledge properties of clay material, his failing and priority and with the ability of building industry to accept clay as a common building material.

### **KEY WORDS :**

Failures of clay houses, cracks, moisture, stability, repairs