

## Health Effects of Earthen Products



**Dr. S. Müjdem Vural, Dr. Ayse Balanlı and  
Gökçe Tuna Taygun**  
Yıldız Technical University, Faculty of Architecture,  
Architecture Department, 34349, Beşiktaş / Istanbul

( [vural@yildiz.edu.tr](mailto:vural@yildiz.edu.tr), [smujdem@superonline.com](mailto:smujdem@superonline.com))

### ABSTRACT

#### OBJECTIVES

Building products can have negative effects on environment – and people’s health – during raw material acquisition, product manufacturing process, building process, building use and demolition. Building products impacts on living or nonliving continue during the life cycle of the products.

The soil is thought to be environment friendly and has no health effects because it is acquired from the natural environment and also natural itself. On the other hand, people, being part of the living natural environment, can have health problems caused by some of the materials found in the soil.

Earthen products can have hazardous effects on people’s health if exposed to pollutants such as asbestos (amosite, crocidolite, chrysotile, anthophyllite, tremolite, actinolite), silica (quartz, cristobalite, tridimite), many particles (talc, coal, kaolin, graphite) and radon gas that are found in the soil.

In this study;

- Pollutants that can be found in earthen materials and health problems caused by these pollutants
- Distribution and concentration of asbestos, silica and radon in Turkey
- Solutions for Turkey, especially in rural areas where earthen product is used mostly

will be pointed out.

#### METHODS

In this work; earthen products and their life cycles, during this cycle characteristics of asbestos, silica and radon that can be found in the soil and health effects will be determined.

#### CONCLUSIONS

In the conclusion, the health effects of asbestos, silica and radon during the life cycle of earthen products and precautions that can be taken in general and in Turkey will be displayed and discussed.

### KEY WORDS :

Earthen products, people’s health, asbestos, silica, radon