

**English for Architects 20 March**

**Level : Semester two**

**Weekly hours : 1h45**

**Meeting time : Friday 9-10.45**

**Instructor : Pr.K.Saadani**

## **BUILDING DISEASES AND TREATMENT**

### 1. Definition and identification of "Building Diseases and Treatments"

distress, defects, decay, damage, etc. The sick building syndrome (SBS) is used to describe a situation in which the occupants of a building experience acute health- or comfort-related effects that seem to be linked directly to the time spent in the building. The complainants may be localized in a particular room or zone or may be widespread throughout the building

### **Signs and symptoms of the sick building syndrome are as follows:**

Headache, dizziness, nausea, eye, nose or throat irritation, dry cough, dry or itching skin, difficulty in concentration, fatigue, sensitivity to odours, hoarseness of voice, allergies, cold, flu-like symptoms, increased incidence of asthma attacks and personality changes. Cough, chest pain, shortness of breath, palpitations, nosebleeds, cancers, pregnancy problems and miscarriages.

## **PREVENTION AND CONTROL**

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1. Increase the ventilation rates and air distribution. The heating, ventilation and air-conditioning systems should be designed to meet ventilation standards in the local building codes. The HVAC system should be operated and maintained properly to ensure that the desired ventilation rates are attained. If there are strong pollutants, the air may need to be directly vented to the outside. This method is especially recommended to remove pollutants that accumulate in specific areas such as rest rooms, copy rooms and printing facilities.

2-Removal or modification of the pollutant source can be carried out by a routine maintenance of HVAC systems, replacing water-stained ceiling tiles and carpets, using stone, ceramic or hardwood flooring, proper water proofing.

3-Air cleaning can be a useful addition to control air pollution. Air cleaning can be performed by ensuring uncongested interiors with open office designs, use of frosted glass and skylights that give access to natural light, terrace gardens, community spaces and indoor plants that absorb carbon monoxide

## **Construction concepts**

Natural and nontoxic building material should be used, walls, floors and ceilings should not be susceptible to mold or fungi, the basement should be waterproof and well –ventilated. Production, installation and disposal of building materials should not lead to environmental pollution, building activities should not lead to exploitation of nonrenewable,

Lighting and color must mix well with the surroundings and not jar the senses, man-made electromagnetic radiation must be reduced as much as possible, interiors should be done by using natural materials without toxic content and should be economically designed, there should be no toxic outgases or harsh smells, indoor humidity should be naturally regulated, air pollutants should be filtered and neutralized, thermal insulation should be balanced with heat retention, use of solar heating should be encourage.

### **ACTIVITY**

Write a report illustrated sketches, drawings, with site visits of necessary and important places of maintenance / repair and restoration of the items mentioned in the handout.

## **Architectural Styles**

**Italianate 1840-1880 Adapted from Italian Renaissance villas**, these buildings have a square body topped by a low roof line. At the roof line are deep eaves decorated with large brackets on a wide cornice board. Window shapes vary from floor to floor, with the most common shape having a rounded top. Italianate buildings are generally painted in colors.

**Second Empire 1865-1885 Borrowed from France**, this style is a square box with massive ornamentation. Windows of many sizes and shapes decorate the face. The most identifiable feature is the mansard roof. A full story tall and shaped like a flat-topped pyramid, the roof is often accented by a central tower structure and dormers. Second Empire buildings are often painted in dark colors, often reds or deep greens.

**Romanesque 1875 - 1900** This style is characterized by massive arched windows and doorways. The facades of these buildings are often ornamented with short columns and squat towers. Always built of brick or stone, Romanesque buildings are sometimes decorated with terra cotta. The finest example of this style in Pittsburgh is the Allegheny County Court House and Jail.

**Classical Revival 1890-1930 Tall columns**, either round or square, and railing work around the roof are the features of this style. Tall windows, often with decorative caps (pediments) are located between the rows of columns. These buildings are always made of brick, stone, or a combination of both materials, and were usually banks, libraries, or other public buildings.

**Colonial Revival 1880-1920** This style was designed to look like buildings of our Colonial period. Large pedimented gables, bay windows, and fan-shaped windows were accented by

swag and wreath style ornaments which were used to convey the feeling of Early America. Colors too were colonial: cream, light green, gold, and white.

***Art Deco 1925-1940***

A style of decoration, rather than architecture, Art Deco is characterized by its rounded shapes, parallel lines, chevrons, and streamlined look. Many Deco buildings are new fronts on old buildings. Deco buildings were made of stucco and concrete. Store fronts were often colored glass or enamel on metal. Deco colors were red, black, coral pink, and turquoise