

HI-TECH ARCHITECTURE

Lecture 4

INTRODUCTION

- ◉ Hi-tech architecture, also known as **Structural Expressionism**, is a type of Late Modern architectural style that emerged in the 1970s, incorporating elements of **hi-tech industry and technology** into building design.



The HSBC Hong Kong headquarters is one example of high-tech architecture

CONT'...

- ⊙ Building in this architecture style were constructed mainly in **north America and Europe**.
- ⊙ The style got its name from the **book hi- tech**; the industrial style and source book for the home



*Burj Al Arab, Dubai,
United Arab Emirates
(Tom Wright, 1999)*

CONT'...

- ◉ serves as a bridge between modernism and post-modernism
- ◉ The structure of the buildings treated as an **ornament at the same time**. At this point, this architecture is **close to postmodernism**. which refers to the **broadly defined postmodernism**.
- ◉ some of its ideas were later absorbed into the style of **Neo-futurism art and architectural movement**.



The Leslie L. Dan Pharmacy Building at the University of Toronto was completed in 2006

CONT'...

- ◉ integrate the **technical equipment** of the building in its structure. So arises the so-called **intelligent building**, in which **installations and construction** are designed as an integral whole.
- ◉ **Like Brutalism**, Structural Expressionist buildings reveal their structure on the outside as well as the inside.



Buffalo City Court Building,
built 1971-1974 by Pfohl,
Roberts, and Biggie.

BACKGROUND

- At the beginning of the 20th century, new materials (glass, steel, concrete) and modern equipment started to be used in the construction industry. Thus was born a new architectural design developed using advanced technology, known as **hi-tech**.



***BMA Tower, Kansas City,
Missouri, United States (Bruce
Graham, 1961)***

CONT'...

- ◎ It is deeply connected with what is called the **second school of chicago** which emerged after world war II. the main content is that the **technological kind of construction** ,mostly with steel and glass, is expressed in a formal **independent** way to gain **aesthetic qualities** from it.



***860-880 lake shore drive
apartments by German architect
ludwing mies van der***

AIMS

- ◉ hi-tech architecture aimed to give **everything an industrial appearance** and to achieve a new industrial aesthetic.
- ◉ For interior design there was a trend of using formerly **industrial appliances as household objects** .

MAIN CHARACTERISTICS

- ◉ The emphasis on exposed **colored technical elements**.
- ◉ The prominent display of the building's **technical and functional** components on the **external façade**.
- ◉ The use of pre-fabricated elements, glass walls and steel frames.



Riverplace Tower, Jacksonville, Florida, United States (Welton Becket, 1967)

CONT'...

- ⦿ Technology being the main feature of the building.
- ⦿ Architecture design is very much **functionally orientated**.
- ⦿ The **large interior open space** and the easy access to all floors
- ⦿ Neatness in architectural design.



Shanghai Bank HQ

*Norman Foster's
Hong Kong*



CONT'...

- ◎ The hi-tech buildings make persistent use of **glass curtain walls and steel structure**.
- ◎ It is greatly indebted to **modern architecture**, and influenced by **Mies van der Rohe's** high rise buildings.



I.M. Pei's Bank of China Tower in Hong Kong

SOME FAMOUS HI-TECH ARCHITECTS

- ◉ bruce graham
- ◉ fazlur rahman khannorman foster
- ◉ richard rogers,
- ◉ michael hopkins,
- ◉ renzo piano
- ◉ santiago calatrava,

EXAMPLE BUILDINGS



The pomidou complered in 1971,by architects richard rogers and renzo piano,



Lloyd's building by renzo piano and richard rogers, 20th

THANK YOU