Why consider assembly?

• Error
• Speed of construction
• Appearance
• Cost
What is assembly design?

• Assembly design is an upstream part of the design process

• Helps to identify construction methods and sequence of assembly

• Assembly design is an iterative process as much as it is a destiny
Manufacturing

- Goals
- Methods
- Purpose
- Advantages
Manufacturing Concerns

- Repeatability
- Accuracy
- System Flexibility
Manufacturing Concerns

1. Accuracy

2. Repeatability

3. System Flexibility
Why is Assembly Design Important for Architects?
1 Create a Surface

2 subdivide surface

3 extrude shapes

Research Project

2002
Curved Surface Design

- can curved surfaces be modeled in a design office?

- is it possible to have a continuous surface with no overlapping parts?

- can the surface be waterproof?
4  subdivide into sections
5 test samples

6 final surface and molds
Error in Fabrication

Continuous Glass Surface
Quarter Scale Construction

Problems

1. Poor relationship between tools
2. Design is a rain-screen
3. Inconsistent connections at joints from error in measuring, cutting and assembly
**Graz Museum**

*Architect: Peter Cook*

- CAD CAM manufactured surface and structure

- no overlapping surfaces

- rain screen acts as a rain screen