

Construction Technology 'A'

Module Introduction

Construction technology

Module Aim

To enable learners to understand, apply, analyse, investigate and evaluate the standard design forms, site evaluation methods and construction techniques used in modern low-rise construction.

HOW?

Construction technology

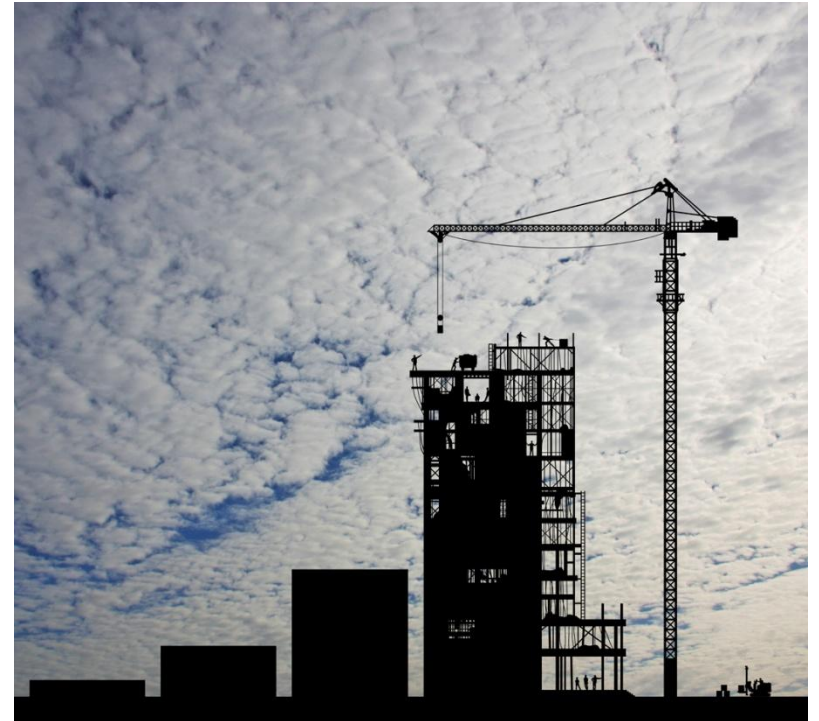
- Module outcomes
 - Develop an awareness of site investigation techniques and methods used to classify soils.
 - Identify the different types of substructure available for a range of low-rise building systems.
 - Demonstrate understanding of the main forms of superstructure applicable to a range of low to medium-rise building forms.





Construction Technology

What does it mean?



Construction technology



The technology of construction not only shows how we currently build, but also provides an understanding to how construction works!

Construction technology

What type of construction is available?

What materials might be specified?

How important is detailing?



Construction technology

Failure?



Experience

Materials

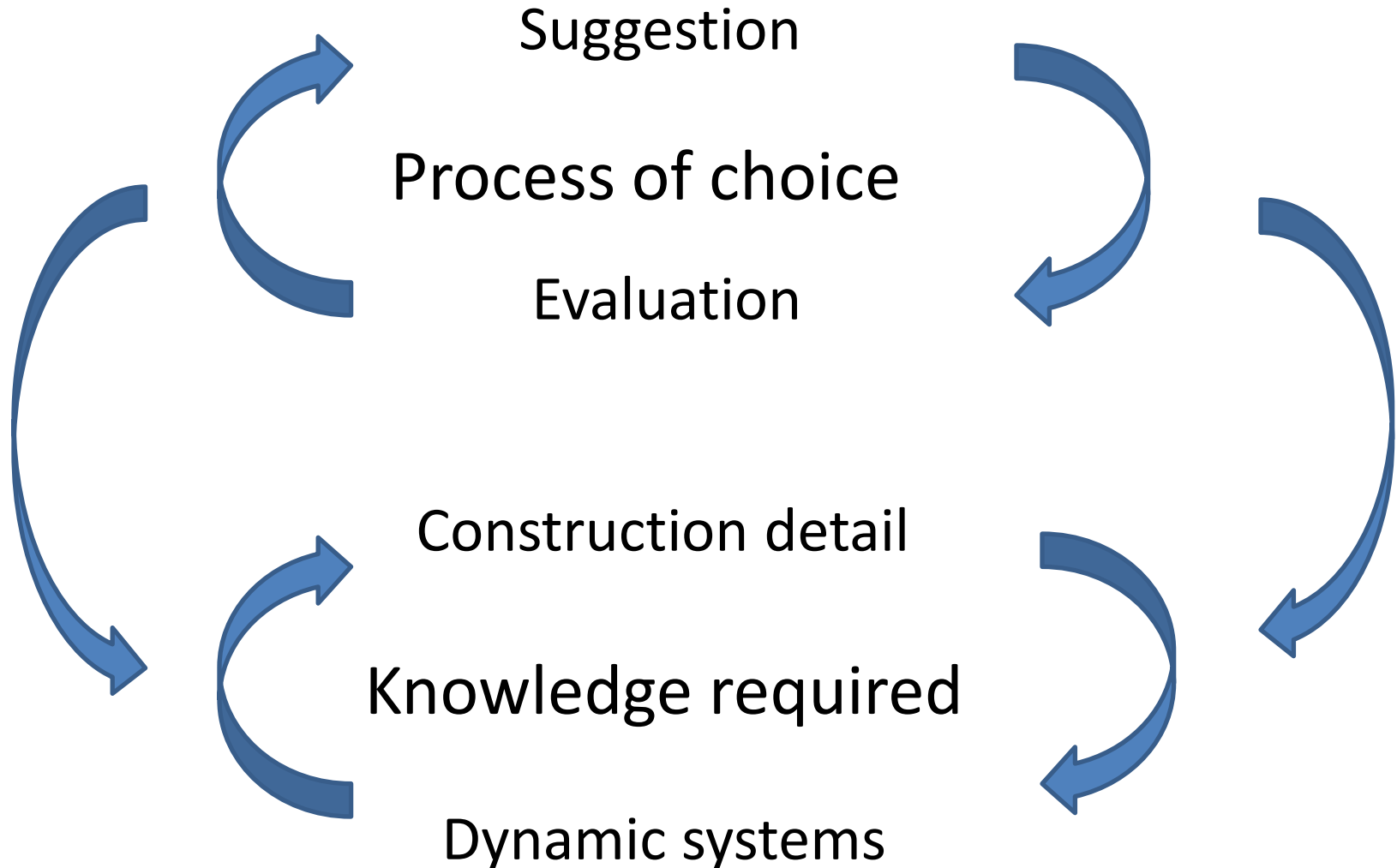
Workmanship

Construction technology



Success?

Construction technology



Construction technology

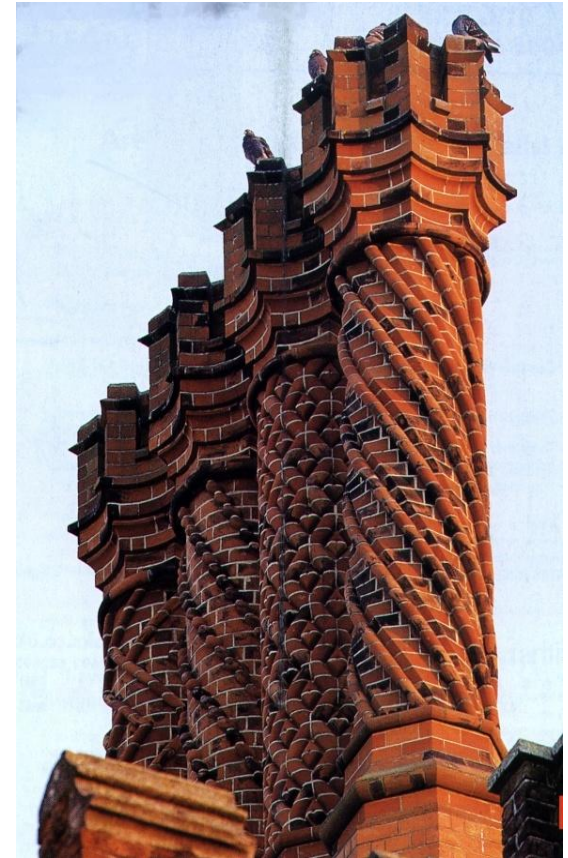
How might we get from suggestion to evaluation?

- Precedents
- Current solutions
- Performance



Construction technology

- It is easy to see technology as only the final construction:
 - An assembly of components
 - Materials
 - The building as a static object



Construction technology



- The key to technology is an understanding of construction as a dynamic system that can respond to change

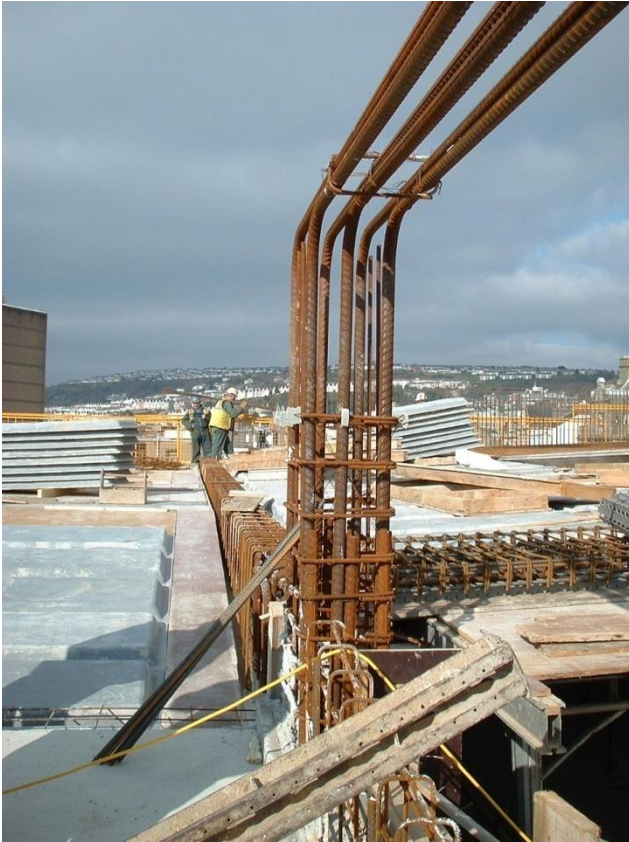
Construction technology

- The skill in understanding construction technology then, is the ability to make choices!



Construction technology

- How does one make a choice?



- Client's brief
- Social and physical context
- Resources
- Design expertise
- Production

Construction technology

- Workable suggestion?
 - Physical behaviour
 - Creating environments
 - Under load
 - Over time
 - Appearance



Construction technology

- Achievable with available resources?



- Can it be produced?
- Manufacture and assembly
- Maintenance and disposal
- Skills and know-how
- Time and quality

Construction technology

And.....

Resources Vs Costs

Compatibility Vs Social
Issues



Construction technology

Knowledge then is a significant attribute.



Can you identify the types of knowledge that will be required when considering construction technology?