

Buildings of transportation systems

- historical overview

- antique times: courier/postal service mansio /Rome/ and harbour facilities
- medieval post stations and coach inns, caravansaries
- 19th century railway stations
- 20th century bus stations, airports and metro stations, tram stations
- motivations on traveling and transportations
- development on moving methods and vehicles/on foot; horse/camel/donkey; ship; coach; railway; car; airplane; spaceship/
- location of transportation buildings

- kinds of transportation buildings

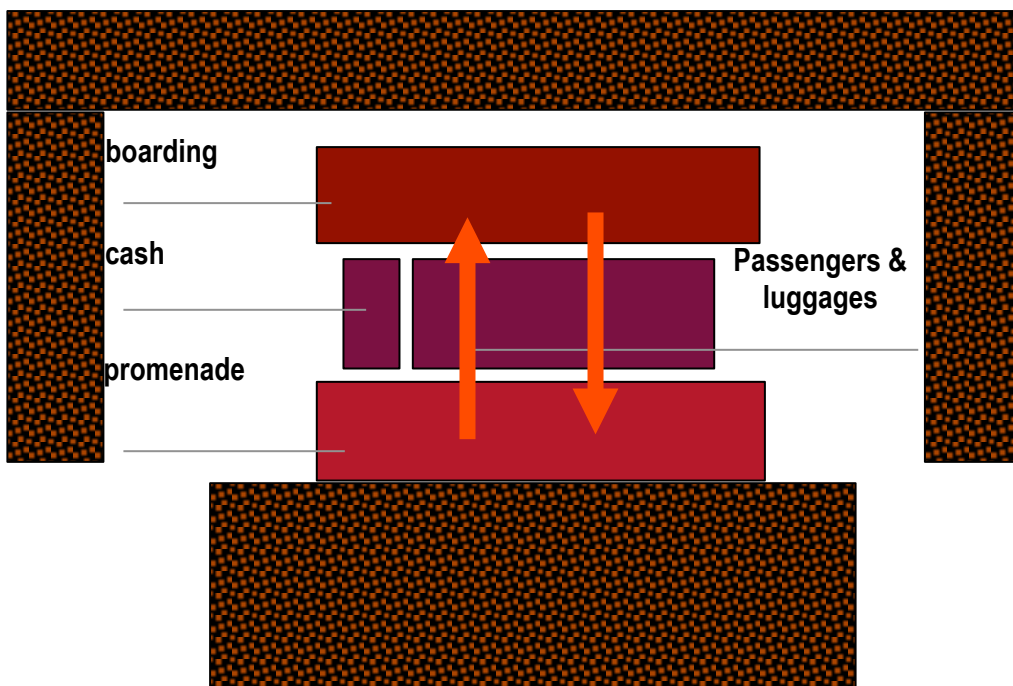
- long distance transportation
 - navigation buildings
 - railway buildings
 - bus transportation buildings
 - aerial transportation
- local transportation
 - stops
 - railway facilities
 - underground facilities

- kind of spaces and space structures

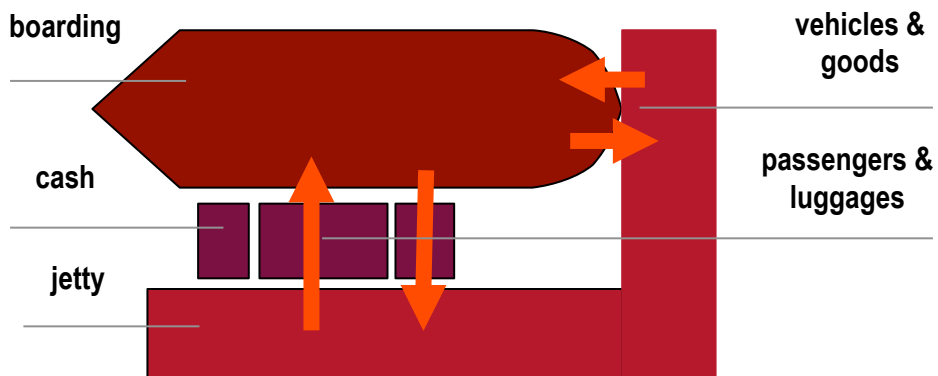
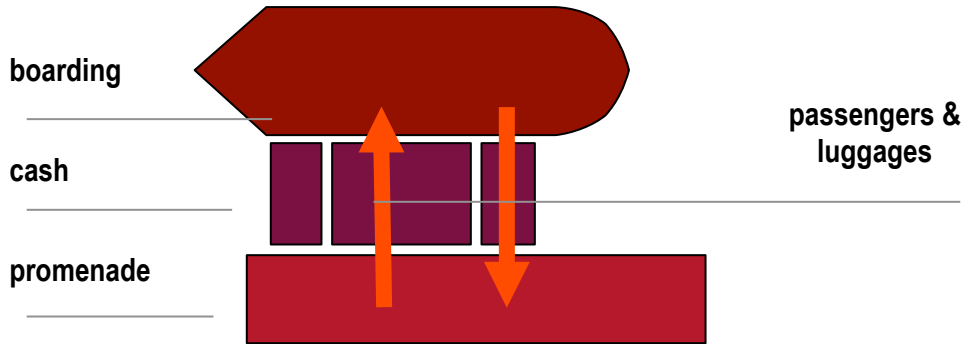
- small - mid-size - large	- inn-like system - railway station-like system	-with vehicle hosting hall - without vehicle hosting hall	-one level -multilevel - underground system
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- basic planning theories

Scheme of bus stations



Scheme of passenger-ship stations
Scheme of ship/ferry terminals

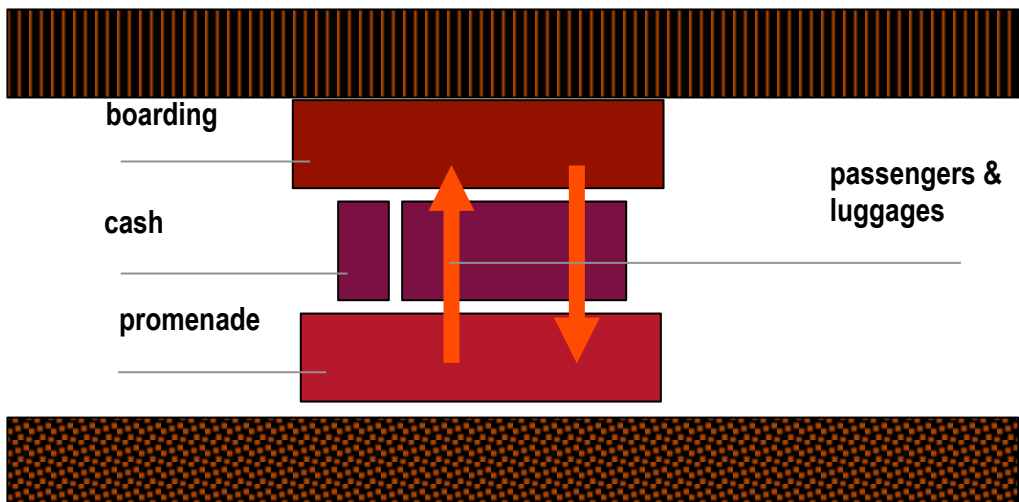


Schemes of „passing trough” railway stations

- Traditional layout: trucks on ground level - pedestrians underground
- Head-station-like layout: trucks underground
- Building above trucks with perpendicular traffic direction
- Building below the trucks with perpendicular traffic direction

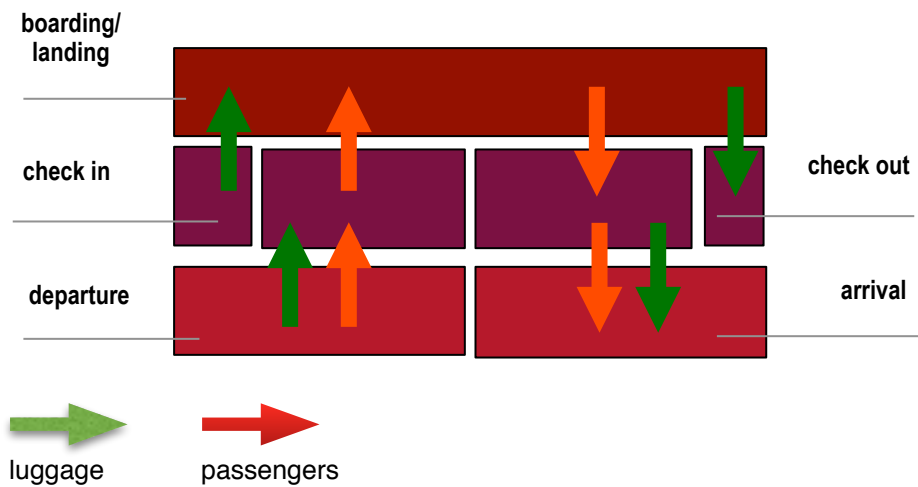
Schemes of „head” railway stations

- Parallel



- Perpendicular

Scheme of airport terminals



Scheme of urban transport head-stations

Free accessibility

- **design aspects to consider - according to VITRUVIO's principles:**
 - COMMODITY - multilink facilities - busy traffic from several directions
 - dimensions - estimations for the future
 - multifunction facilities (commercial, administration)
 - flexibility for the future
 - FIRMNESS - special structures (huge span!)
 - DELIGHT - gate symbol of locations, cities, countries

- samples

Bus stations

- Lázár Antal (A&D Stúdió Rt.): Bus station, Budapest, Hungary Népliget, 2002
- Eva Jiricna architects : Bus station, London, Britain Canada Water 1999
- Cruz & Ortiz : Bus station, Huelva, Spain 1995
- Allford Hall Monaghan Morris: Bus station, Walsall, Britain 1999

Bus stops

- NIO Architects: Bus stop, Hofdorp, Holland, Suidtangent, 2002

Ship stations, terminals

- Javier Garcia-Solera Vera: Ship station Alicante, Spain 2000
- Nielsen, Nielsen og Nielsen: DFDS Ferry terminal Copenhagen, Denmark 2004
- ShinTakamatsu: Ship terminal Mihonoseki, Japan 1996
- ShinTakamatsu: Ship terminal Nagasaki, Japan 1996
- FOA (Foreign Office Architects): International Ship terminal Yokohama, Japan, 2002

Airports

- Arkitekterne maa Schmidt, Hammer Lassen K/S: Airport Aalborg, Denmark 2001
- Aviaplan AS: Airport Oslo Norway 1998
- Santiago Calatrava: Airport Terminal Bilbao Spain 1990-

Railway stations

- Santiago Calatrava: Railway station Stadelhofen Switzerland 1990
- Herzog & de Meuron: Stellwerk Schweizerische Bundesbahnen Basel Switzerland 1999
- Hornberger Architekten AG: Reconstruction of Railway station Zug– Schweizerische Bundesbahnen Zug/Switzerland 2003
- AREP (Jean-MarieDuthilleul): Railwaystation St. Denis France 1998

Metro stations

- Sporaarchitects: Budapest Metro 4 stations: Gellért tér, Fővám tér 2013
- KHR: Metro station, Copenhagen Denmark 2002
- Ian Ritschie Architects: Metro station Bermondsay Beacon London, G.Britain 1998