

Airport Books

Selected summaries for Non-place Stansted visit.

Gillian Fuller, Ross Harley (2005) Aviapolis: A book about airports, Blackdog Publications.

Combining a theoretical framework from Walter Benjamin to Giorgio Agamben, this book looks at the history of international mass transportation and searches for its face between architecture and sign language.

Here are summaries of three books. The first as set of photographs – of the ‘good old days’, the second a book for architects by an airport architect includes a critique and then guidelines for design in 21st century. The third is a cultural history, I summarise the chapter charting the decline of the airport since 1970s and new design challenges of 21st century.

2003 Arrival and Departure, the Airport pictures of Garry Winogrand, D.A.P./Distributed Art Publishers, Inc.

American photographer, died 1983. taken since 1953. Airports gave him anxiety, but the intro author talks about enjoying travel for its own sake.

Pictures of arriving, getting help from porter, sorting out luggage, looking for friends, the information desk, checking in, joke with travellers, worried staff, queuing, long line in an empty hall, phoning, waiting in the other side, children, adults walking, signs – no entry, coffee shop, gift shop, telephones, lounges, customers, exit- cheeky child with no cloths, looking at the planes through large windows, anticipation, more phoning, children, waiting for luggage with trolleys, playing outside as family on observation deck, waiting for people to arrive, security guards smoking, more phoning, businessmen leaving plan, first class info desk, the departure screens, loading the luggage, small queuing, the helicopter, boarding the plan, first class cabins with facing seats, finding space in crowded cafe, finishing drinks, finding tickets, reading the paper

Long white shiny corridors, clocks cycling over the loading area.

Large windows, shaped concrete, phones, wheelchairs, plan close thought he window, individual seats – sitting over two seats, trying to sleep, small signs, airplane branding, saying goodbye, delayed marked on all departs on the board, flight crew waiting bored, watching planes load from over the fence, the bar, buying from a vending machine, leaning over the back of benches to talk, carrying children, stewardess helping carry child, welcome home – dad, son, queuing with curlers, welcome to California, mum, taxi driver, crying as the plane leaves, immigrants talk to white middle class, biting nails, hug goodbye, small dogs, take off.

Pictures of 60s and 70s mainly, lots LA or NYC,+ other US and some European airports

Brian Edwards (2005) The modern Airport Terminal, New Approaches to airport architecture, 2nd ed 2005, Spon Press, London.

Book by architect specializing in airport design. Case studies and theory. Promotes idea of airport as city, and part of multimodal transport network, needing civic planning and a focus on the passengers and other users in its design.

Summary of Themes in introduction

Universality of Air travel

Speed, scale, glamour.

Theatre and railway terminal combined. National image, aspirations of society,. Thrill of air travel. Link tech of aeroplane to design of terminal.

Stansted – 1985, Fosters – a new generation of terminal

Airport as cultural memory

“Story of modernism acted out in space, speed and flight”. p.xi

urbanism based on fluid movement

placeless world; large fluid spaces for social exchange; architecture which tries to give place to an alienating environment p.xi

Designer struggles to provide physical and cultural orientation p.xi

Terminal – gateway to flight and to continents

Airports a celebration of physical travel and social connections

Change of airports from function to symbolic meaning. Image is important. p. xi

Hub airports destroy place, make need to anchor these structures in middle of nowhere in some reality p.xii

4th generation of airports 1990s-

intermodality, huge scale, retail serious competing element. Focus on hub airports away from any ‘real’ place – link to city broken p.xii

A crisis of urban design

Air travel has moved from exclusive experience to complex, socially universal and profitable business. Revenue from hotels, retails etc exceeds travel income (e.g. Heathrow).

But problem of lack of rail links, illegibility of airport estate, low priority for pedestrians, business opportunities missed. Lack of design vision. p.xii

Do not fit into civic planning either – inhabit space on urban fringe.

Haphazard and unplanned growth. Focus on infrastructure before civic planning (e.g. BAA). Few airports have an urban design framework

Problem: how to plan airport growth given unpredictability? What is role of architecture and planning?

Infrastructure- runways, roads etc priority over passengers and architectural space. p.xii

Airports are our new cities.

The airport and sustainable development

Cities traditional grew from transport links – now new cities grow around airports. Airport centre of a new city, employing thousands of people. Need to emphasise mass migration around city, not individual movements. Need to address perceptions. p.xiii

The importance of legibility

Enormous distances in airports: creates frustrations. Often give first impression of a country. Need good waymarking, repeated and legible.

Need to design airports as cities.

Modern airport is a huge shopping mall through which airline passengers navigate with difficulty. p.xiii

Don't design airports as container for shops and bars. Restrict commerce to certain areas. Zone them with squares and streets, with interior parks.

Sense of interior space in airports is often lost. p.xiii

Need areas for reading, reflection, etc.

Space is filled through time, so that architectural experience is eroded (e.g. Stansted).

Sense of volume is lost, as are physical means of orientation.

Growth and Stress

Airports stressed by growth. Has to work harder and harder in limited space. p.xiv

Airports cannot expand. Usually found a new airport. Terminals controlled by different airlines. Fundamental limit is runway space, not terminal space.

Pressure from air commuting as well as general growth in traffic. Solve with tighter time slots, and bigger planes.

Congestion=passenger stress. Many bottlenecks. Stress occurs in most physically confined areas. E.g. customers has no natural light.

Restaurant queues block otherwise open spaces.

Trend towards stress free areas being built. Expensive in real estate, but now competitive pressure on airports on basis of 'total transport experience'. p. xiv

Design of individual airport often changes from one generation to the next e.g. one story to multi-story, linear to round etc. fundamental redesign often impossible.

Architecture locks in earlier agendas. p.xiv

Tackling the big picture

Airport design often destroyed by contradictory forces in process. p.xiv

- Contradictory operational , security and commercial agendas
- management of artificial environments
- balance physical and mental states
- maintaining cognitive orientation

Two principals: contact with natural environment and consideration of mental as well as physical wellbeing:

However normally determined by quick throughput and maximising artificial realities. Best designs maximise space and light. Use structure as navigation markers; allow for commercial colonisation.

Need design and materials to play a positive not neutral role. Connection to scale and technology of the aircraft.

J.G. Ballard: airports are the 'ramblas and agoras of the future – where everyone briefly becomes a true world citizen'. p.xv
Need to create new cathedrals, not IKEA stores – labyrinths in a standardized envelope.

The romance of the Airport Terminal

Public transport architecture is torn between utility and the romantic. p.xv
Place for connection to place; and place for welcome or farewell;
Container for memories.
Shops flower stalls, cafes emphasise non-functional.
Design – irrational and spectacular – uplifting.
In large airports nearly as many people waiting for friends as flying. p.xv
Much more than just a gateway to the plane.
Multicoding of space; plurality of design/
Order descends into romantic confusion.
Self important hotels and business parks undermined by garishness.
Check in hall in contrast to meaner departure gates. p.xv
Long spaces with queues reflect aircraft geometry.
Elements of railway station- booking hall, platform and bridge – repeated in airport.
Pevsner – interdependence of transport building types.

Changes to Airports

Regulation and business created massive changes in airline business in recent years.
Competition, low fares, new markets, new business. Large aircraft. Airports as conference centres, hubs, cities.
½ million people in air at any time.(2-5 mill train, 10-12 m busses). Need to address intermodality
public transport more important than private car.
2 min departure intervals. – 80 flights a hour for 2 runway airports. 10 000 passengers a hour. (1/4 capacity of football stadium).
But passengers slowed by increasing security.

20 chapters covering a range of topics:

e.g.

passenger movement, baggage handling, design concepts, passenger types. Technical standards,, relationship between aircraft and terminal, access to airports, growth of airports, planning. Case studies on airports; terminal of the future.

Search for place in terminal design p.262

Volumes need to be articulated – e.g. columns, beams etc. indicate sense of direction.
Sped of movement etc.
Light as a tactile material, to define different areas. Used to draw people in; define private and public areas, quiet and noisy areas.

Use of height – often requiring digging deep holes. Walkways, etc.
Interior gardens.

Capacity of airports p.18

Constrains: runway; terminal; surface transport; passport, immigration and security capacity.

What is an airport?p.6

Runways and taxi areas; air traffic control; aircraft maintenance; passenger terminal and car park; freight warehouse.

Main players: airport company; passengers; airlines

How to airports generate income p.4

Landing fees; concessions in terminal buildings; leasing to airlines; leasing to non-airlines (car parks); equipment rental (e.g. baggage handling).

Stansted – car parks generate more revenue than landing fees; Heathrow, retail concessions make more than landing fees.

US airports – non airline income is 80% of total.

Duty free in arrivals a congestion problem.

Terminal as movement system chapter9 p.96

Trend to deflecting people from flow of movement. Manage movement with light, space, structure and object.

Points for design:

Short straight concourse; do not obstruct passenger flow areas; no cross flow; can be used by disabled; few changes of level; multi-airline use; multiple routing to give choice at passport etc; flexible layout; individual and group processing of passenger; reverse flow possible.

Light used to define concourse, in contrast to transition and control zones.

Conflict in function and meaning in terminal design. Chapter 12, p.131

4 key terminal functions: facilitate change of transport mode; process passengers (tickets, immigration etc); provide passenger services (eating, meeting, toilets etc); organise and group passengers into discrete batches ready for journeys by plane.

Passenger types, spaces standards and territories Chapter 13, p.143

6 territories of departure: entrance concourse; flight check in; shops bars etc; passport control; departure lounge and shops; pier and gate to plane.

4 of arrival: lounge; baggage; customs and immigration; exit hall.

Passenger types: many different sorts and needs. Whole families, business person in hurry; long haul tired passengers; transferring passengers racing; elderly travellers often in wheelchairs; young mothers (*or fathers*) with small children.

Other airport users: employees of airport, airlines, shops, customs etc; meters and greeters; leisure visitors; local residents (who use shops); business people (conference facilities); police and security.

Non-retail facilities: banks, exchange, info, car rental, tourist info, showers, rest areas, laundry, beauty salon, hairdressing, medical services, conference services, spiritual support, amusements, cinema and video, health club, business club, swimming pool, VIP lounge.

Terminals exploit 'dwell-time' for retail and entertainment income p.148

Doubling of retail in 10 years. Fire hazard.

Introduce new floor (e.g. Gatwick) for retail mall.

Pressure to blur line between commercial and other areas, and between air and landside.

Wayfinding through airports p. 159

Few boundaries in airports – unmemorable as well. Linear journeys, but rarely give impression or ordered linear progression. Bewildering process. Bombarded by ads, shops and security. 3D defined space you would like to blurred into 4D mess.

Colour and artefacts help.

Architects think in terms of 'space', traveller requires sense of 'place' p.160

Need to create linked memorable experiences

Use sense, sight and sound.

Need to grasp physiological and perceptual dimensions.

Passengers create cognitive maps. Need good signs and memorable physical elements.

10% of users have visual disability.

Guidelines: signs must be integral, and design for change; position based on passenger needs not airlines etc; wayfinding design and signs should have same philosophy; wayfinding signs must be separate from commercial signs.

Contrast more important than colour.

Alistair Gordon (2004) Naked Airport: a cultural history of the world's most revolutionary structure, Metropolitan Books, Henry Holt and co. New York

A history book charting changes in airports and their cultural position in historical periods. US author.

6 chapters-

1. Prototypes 1924-1930
2. Naked Airport 1930-1940
3. New Deal 1933-1941

4. Air Power 1939-1957
 5. Jet-Land 1957-1970
 6. The Sterile Concourse 1970-200
- Epilogue: from Lindbergh to Bin Laden.

Naked airport refers to a concept of airport design by Corbusier

Prologue – first experience of an airport

JFK airport 1964. Terminals like the fair. Endless glass. Breathtaking. Flowing surfaces, no sharp corners, topsy-turvy building, like ocean waves. Glimpse of tailfin through elliptical window.

Air charged with anticipation. Beautiful air hostesses. Lipstick-red carpet, curved steel railings. Sensual.

Walking down a tube, like to a space ship. Otherworldly.

Perfect modern world.

Destroyed by hijacks, air rage, jumbos jets, deregulation, carousels, body scanners.

Thrill of 12 year old boy replaced by horror and boredom. Feeling of weightlessness. Airport construction notice - “we are tearing down yesterday to make way for tomorrow” – but tomorrow never comes.

Chapter 6 the sterile concourse.

THE ANTI-AIRPORT. Atlanta’s new airport was obsolete by the time it was built. Passenger numbers and aircraft design had over taken it.

Martini airport was outdated. By end 1960s.

Long passages heightened fear of flying. Conventional transition point disappears with the automated boarding ramps.

Mutation: airports became disoriented. Need elaborate info systems. William Pereira in ‘*A journey to the Airport*’. Discusses ‘attraction factors’ ‘desired motion’, ‘trip analysis’. Use contrasting shapes, scale shifts, wall textures, colour bands, and repetitive patters to create continuity.

Reyner Banham – the airport is a ‘demented amoeba’.

Paolo Soleri – the airport is a place where things don’t seem to be able to stay together’ p.225 propose the ‘arcological’ airport as a self contained ecosystem on a insect like tripod.

Many visions in 1970s

Weildinger – a universal floating airport with bubble units for landing anchors to ocean floor.

Egger- Systemodule – floating airport

AIRPORT SUBLIME : anti-airport sentiment starts 1970s. many crashes etc. stewardesses and pilots etc. cheap airlines

Lewis Mumford - transcontinental trip so cramped and dull, so vacuous, the only attractions the airlines dare offer are those vulgar experiences one ca have by walking to the nearest cabaret, restaurant or cinema: liquor, motion pictures, luscious stewardesses. ..only the fear of grisly death can help restore the sense of reality.

Airport as dehumanising. The robot voice.

New fiction exploited dark side of air travel, contrast to previous glamour. Arthur Hailey- *Airport* 1968. Followed by many films of similar name.

High brow literature – Frisch – *Homo Faber*. Hazard – *The transit of Venus* – ‘white light thin air’ or terminal. ‘total absence of morning, climate and substance’.
Excessive lighting.
Updike - *Marry Me* romance in airport. Boarding door shuts like a gas chamber.
Sebald in *The rings of Saturn* the airport as antechamber to hereafter p.231.
Announcers voices, like angles calling, disembodied.

1970s- hijackings. Introduction of security checks. People go through scanner in ‘his or her own style’ (New York Times 1973). But metal stays and bra-straps caused problems!
But create choked up chutes for herds of cattle.
Become the missing gateway that airports had lost.
Departure determined by clearance, not distance.
[Photo of people walking through birth-canal shaped scanner]

Concourse areas now defined as ‘sterile’ or non-sterile’ areas according to federal regulations.
Sleek and sexy turned to the concrete bunker. p. 236
Transparency a liability. Walls replace glass – only transparency is the passengers and personal effects in the X-ray machine. p.236 Smugglers using the glass walls to watch and signal.
Concrete and car parks now dominate architecture. Heavy concrete crashing into the ground – coffin – siege tower – no visible point of entry – all underground p.237
Cologne and Berlin – fortified mega-structures look like built to withstand a nuclear attack.
CdG actually bomb proof. “The last gateway to the State, the airport came to resemble the fort” Virilio. But architect attempts to create centre with criss cross plexiglass tubes.
However most of interior design left to interior designers using what they could – carpet, fabrics, furniture, colours. Luddock – huge cloth signs indicating gates – reminders that ‘all had been lost’. P.328

Airport electronically controlled environment compared to prison. Same architects in some cases. Similar design logic, just shorter incarceration times. P.238
FCC rules – no windows at arrivals – only vertical slits.

PARK AND FLY: Master plan for the airport no longer intuitive – taken over by analysts with functional eye. Simplified to nodes interfaces and modes of transport: Passenger processing system!: access interface, processing component, flight interface.
The ‘intermodal’ style. Long fingers linking remote satellites. Sullivan built Kennedy – wanted an ‘efficient tool’ not a monument. P.243
Dallas-Fort Worth – Sullivan wanted no transition from car to plane – just float between the two. Obata designed to feed in thousands of cars direct to gates – infinite semi circles for infinite expansion. SO big it joined the two cities to make the Metroplex. NO centre or entry point.

Hubs and Spokes: 1978- US deregulation. Massive expansion. Bankruptcies. Hubs make more efficient. Deal with the ‘waves’ or ‘banks’ of peak traffic. Problem now

becomes not moving passengers from car to gate, but from gate to gate. Park and fly out of date. P.246

Atlanta/Hartsfield/Midfield – airlines paid for it, so built on the cheap. Need sterile zone for transfers.

$\frac{3}{4}$ passengers transferring. Centralised security. But huge distances to travel needed person moving techs. Brutalist, no windows, $\frac{1}{2}$ million \$ of art did not help.

POSTMODERN AIRPORT: 1980s no more space to build in developed countries.

But lots elsewhere e.g. Arabia. Mosque and desert references. Illusion of place, alternative to existing impersonal airports. Places for international business travellers to ground themselves – ‘departure lounge lizards’ Iyer.

1990s – new monumental architecture. Symbolism, imagery, creation of memorable spaces. Restore – ‘coordinates of an older space’ Jameson p.250

Return of soaring departure space, the view, crystal mountains. Sentimental references to golden age of flight. Reference of retail malls, soothing and seducing passengers. Theories of consumer developers (Gruen, Portman) important now.

Average wait by 1990s 2 hours 23mins – rise of retailing. Airport Malls much more profitable than normal malls.

Conference centres and corporate parks built – corp headquarters built by airports. No zoning problems. Airports become hub of ideal corporate city p.251

Old airports have to redesign to compete – new monuments, but these schemes are past it.

Stansted – Norman Foster created new clarity 1991. Designed a pavilion in a garden. Hid the mechanical systems – the roof becomes a single architectural gesture. Foster wanted to bring in the key airport scenography – the aircraft, and set out to reclaim Corbusier’s ‘naked airport’ theme. Floor to ceiling glass. Shops etc freestanding in the space. Everything open and flexible, can be rearranged. Simplified circulation into straight lines

Denver and Osaka built with mountain and tsunami metaphors.

China built 25 new airports. All over Asia, very expensive, at the time of the boom.

Seoul airport plan a whole new city for commerce.

Hong Kong – huge airport with its own self-contained town. Tung Chung. Foster designed. 1 mile long building spine. 45 acre roof. But all went wrong after it opened in 1998

AIR RAGE: 2000s people getting angry with airports and airlines. Drunken passengers, attacks on staff. How to reduce passenger stress becomes task.

Terminal 4, Heathrow – intuitive – follow plan tails to get to the gate. (Vacchione architect)

Desire for clear orientation. Hartman – San Francisco – design with a sense of human dignity p. 258. Belief that agoraphobia anxiety comes from lack of clarity, of losing personal territorial sense of space.

Use of natural tactile materials. ‘greening’ of airports lots of plants and water.

Health spas, massage parlours, fear of flying clinics. Meditation rooms etc Try and evoke slowness and downtime to waiting passengers – waiting is now quality time.

Barthes – architecture is an expression of utopia and instrument of a convenience.

Test technologies against human tolerance . 263

Airports now places of full electronic disclosure – no more anonymity. CAPPS II plan to give airport staff full pre-flight profiles of passengers based on FBI, CIA bank and credit records.