



inclusive design education resource

process to pleasure: wayfinding principles for the airport terminal



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Research partner:

BAA plc

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introduction

An architectural study looking at ways to make it easier for everyone to find their way around large and complex airport terminals without an over-reliance on signage. Can the processing of people and baggage through an airport be achieved in a more pleasurable and less stressful way that includes the needs of all ages and abilities?

next: challenge >>



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challenge

Wayfinding is the discipline that helps people navigate their way around a large building or environment. The scale and complexity of the modern airport terminal makes wayfinding difficult for even the most experienced traveller. Add the physical impairments that result from ageing or physical disability and the airport environment becomes an even more daunting prospect.

This study asked how airport buildings could better meet the diverse mobility needs of the travelling public, by making it easier for all ages and abilities to find their way around without an over-reliance on signs. A key objective was to generate a set of informative and inspirational 'Wayfinding Principles' for use by BAA architects and designers in developing new airport terminals.

next: research partner >>



Airports can be stressful to negotiate successfully for even the most experienced travellers





the helen hamlyn
research centre



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research partner

BAA plc (formerly British Airports Authority) owns seven UK airports including the world's busiest international airport, Heathrow. It also has management contracts or stakes in 11 airports outside the UK plus retail contracts at two US airports. BAA is at the heart of the world's transport network. Every year it takes responsibility for nearly 200 million passengers travelling through its airports.



BAA is currently building a fifth terminal at Heathrow on a tight site which will necessitate a complex building on two levels above a transport interchange. When complete, Terminal 5 will be Europe's largest airport terminal and BAA intends the facility to be an exemplar of good design practice that is inclusive of all needs. The project therefore used plans for Heathrow Terminal 5 as a test site for design research, as well as other Heathrow environments to study existing operational parameters and interact with users.

next: methodology >>

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methodology

The study began with an examination of the Heathrow 'city' through the 'eyes' of a group of visually impaired travellers as a lead user group. These user studies, undertaken in collaboration with London Regional Transport, Royal National Institute for the Blind and the University of the Third Age, established an alternative reading of the airport terminal as a 'sensory landscape' in which landmark interventions using colour, form, texture, pattern, sound, structure and furniture could help travellers to intuitively negotiate the scale of the building.

A series of conceptual proposals for interior elements (landmarks, interventions, pathways etc) that are semi-autonomous to the terminal building were developed in order to aid more instinctive wayfinding. These concepts were plotted on three journeys (Arrivals, Departures and Transfer) as a technique to understand how the total 'sensory landscape' of elements might fit together. Some of the elements were then applied in a 'live' design scheme for Europier between Heathrow Terminals 1 and 2, a notorious wayfinding 'hotspot'.

This thinking was carried through into the latter stages of the project which took two directions: one, a parallel study of wayfinding in other building types to identify good practice that might be recontextualised for the airport environment; and two, a series of conceptual design interventions at Heathrow to show how entrances, decision points and other orientation features might be designed to improve wayfinding for all in the future.

next: results >>



Canary Wharf Underground Station: an example of an instinctive exit studied in the research



Visually impaired users are observed trying to carry out certain tasks at Heathrow Airport

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results

The main findings of the study were incorporated into an interactive CD-Rom tool for use by BAA's architect and design teams, entitled 'Wayfinding Principles for BAA'.

Principles: The interactive tool has six fundamental wayfinding principles relating to Entrance, Orientation, Processing, Punctuation, Decision Point and Exit, forming a complete passenger journey. These are underpinned by examples of good practice elsewhere (under the heading 'Examples') and by conceptual ideas ('Concepts').

Examples: Under a number of classifications (retail, public, transport, temporary etc), approximately 50 building types and systems were investigated, ranging from monuments to train station to green urban spaces. Positive points were identified to explain how and why these environments are successful in terms of wayfinding - and the lessons of each mini-case study were applied to a particular stage of the airport process.

next: issues >>



Conceptual proposal for how BAA terminal entrances might be treated in a consistent and recognisable way



Scene editing at Heathrow to aid orientation: the principle makes use of floor and ceiling markings

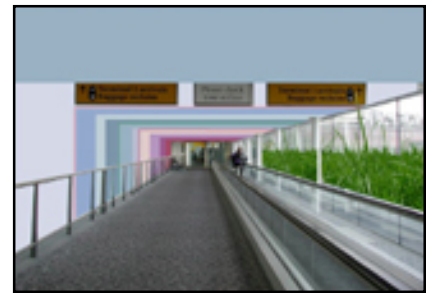
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issues

The BAA airport wayfinding study concluded that adding more and more directional signs to the terminal environment becomes counter-productive after a time. It identified a number of essential architectural requirements that can contribute to the ability of people to find their way instinctively through the airport process:

- the need for all entrances to be marked in a special, recognisable and consistent way that conveys a sense of welcome;
- the need for the internal layout upon entrance to orient visitors by immediately communicating itself in a way that makes the visitor confident of their direction within the space;
- the needs for a consistent and heightened design language to prepare travellers for the key processing points (check-in, security and customs etc);
- the need for environmental triggers to tell passengers that a distinct threshold has been crossed from one stage of the airport process to the next;
- the need for the treatment of space at any wayfinding decision point to visually present competing options in a way that reflects their relative significance



Applying elements of a 'sensory landscape' to Heathrow walkways: airports need to avoid an over-reliance on signs

- the need for all exits from the airport environment to convey a reassuring sense of completion.

While these are necessarily functional, the overall title of the study - 'Process to Pleasure' - reflected the aspiration that the processing of people and baggage in become terminals should become less bureaucratic and stressful, and more pleasurable and intuitive.

next: projects >>



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projects

brief 1

- 1/ Work in pairs. Select a physical or visual impairment and simulate it (by putting Vaseline on your spectacles or cotton wool in your ears, or by borrowing a wheelchair from a disability organisation).
- 2/ Visit your nearest transport environment (train station, airport, bus station etc) as a pair. The 'disabled' partner should try to carry out a task (visit information kiosk or find your way to the check-in desk for a particular flight). The other should observe and visually document the process.
- 3/ Jointly, make a single design proposal that would improve the experience and make the task easier to complete.

brief 2

- 1/ Visit your nearest airport. Go to the area where people meet and greet passengers arriving off incoming flights.
- 2/ Document via video/sketching/photography the social interaction within the environment.
- 3/ Redesign the space to provide a better 'sense of arrival' for a) you b) your grandparents c) a wheelchair user d) a visually impaired person.

brief 3

- 1/ Visit your nearest airport. Create a visual record of the 'landside' facilities that you can access, up to going through Customs and Security into 'airside'.
- 2/ Make a space plan which determines which facilities are retail and which are operational.
- 3/ Create a design strategy for the environment which creates a greater distinction between retail and operational facilities.

brief 4

- 1/** Visit a non-transport environment - shopping centre, theatre, hospital, soccer stadium or temporary market etc.
- 2/** Make a study of wayfinding in your chosen environment. Analyse how easy or difficult it is to find your way around.
- 3/** Select and document one route through your chosen environment eg route from car park to shopping centre or hospital reception to X-ray department.
- 4/** Make a design proposal to improve wayfinding on that particular route for **a)** you **b)** your grandparents **c)** a wheelchair user **d)** a visually impaired person.
- 5/** Explore how your design proposal could be adapted to the needs of an airport terminal.