

Airport Architecture

Chris van Uffelen



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Space and time

by Chris van Uffelen

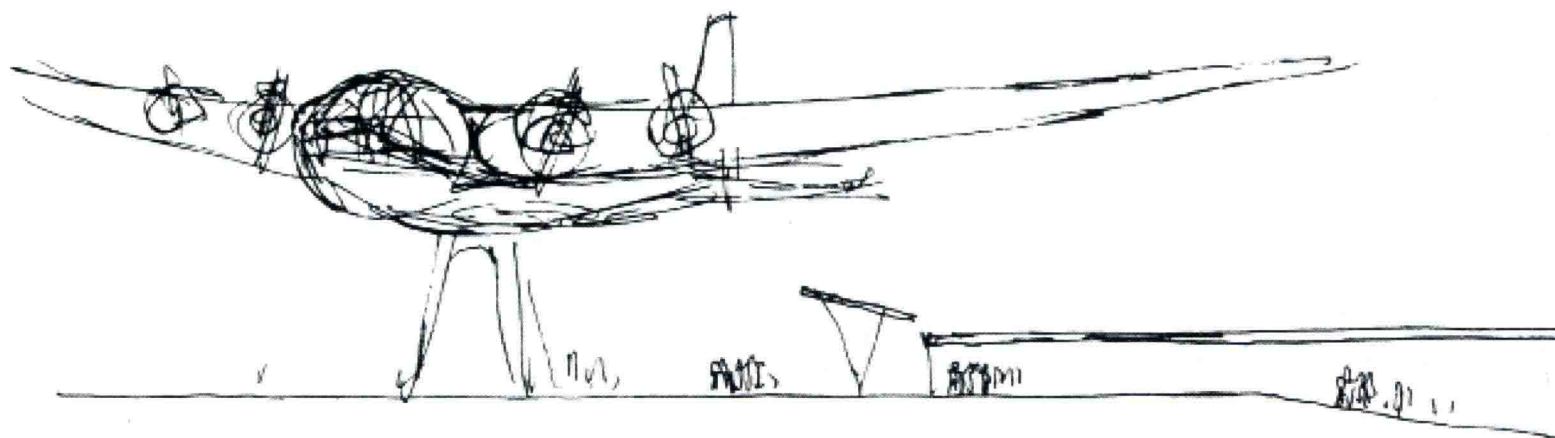
Airports are a relatively new building type, linking traffic on the ground to air-traffic. The largest part of the airport complex is the runways, though these play no real role in determining the architecture. It is the terminal buildings themselves that characterize the airport, acting as a kind of city gate. Airports differ strongly from harbors and railways stations – though these are also often viewed as portals, or gateways to the city – all the airports of the world appear to be connected by a kind of ‘no-space’. Passengers leave city A from the departure airport and enter city B via the arrival airport. The exact points of arrival and departure are difficult to determine; these might occur the moment one enters the terminal, or as one passes customs and security, on the walk up the jet bridge or during embarkation onto the plane – but

regardless of what the exact points of arrival and departure are, passengers leave Euclidean space and enter a condition that seems to be outside of space and time. Since the time of Sigfried Giedien, space and time are understood as crucial conditions of architecture. Airport terminals around the world reestablish these conditions for arriving travellers who have lost them on their journey.

Modern airports have a lot more to offer than just terminals and runways. They also often include parking, malls, lounges, cafés, conference halls and office centers, hotels and railway stations; all there to serve the varying needs of the passengers. To ensure the smooth day-to-day running of the airport, space is also allocated to administration offices, airplane hangars, workshops, air traffic control towers, storage units, baggage and catering facilities, security, police and customs. The first airports were little more than fields, even without concrete runways. World War I dramatically increased aviation traffic and led to the moderniza-

tion of the airport. It was during the 1920s that lighting and approach lighting first came into use and the first civil aviation airport was built in the following decades, often influenced by international events taking place (Amsterdam Schiphol was built for the 1928 Olympic Games). At that time, modern architects were fascinated by aviation. Le Corbusier, 1935, writes that “the airplane embodies the purest expression of the human scale and a miraculous exploitation of material” and went on to suggest that it accuses the city and its architecture of being formal. After World War II, airport design became more sophisticated and the popularity of air travel increased after the introduction of jetplanes in the 1950s.

Eero Saarinen’s expressive airports are typical examples of this ambitious architecture: the TWA terminal at the John F. Kennedy Airport in New York, with its wings reminiscent of those of a bird (1956–1961) and Dulles International in Washington, with its more rational, suspended roof (1958–1962) display this



tendency. In this decade passengers were typically conveyed to their planes by bus, but it wasn't long before different kinds of airport organization developed. There remained few examples of a central passenger processing that demanded a large hall, other kinds of decentralized processing quickly came to the fore. The use of piers is an early example of this decentralization (Chicago O'Hare by C. F. Murphy, 1959–1963), followed by the introduction of satellites in the 1960s (Rossy-Charles de Gaulle by Paul Andreu, 1967–1974). Particularly unusual, is the hexagonal shape of Berlin-Tegel (1965–1974, by Gerkan, Marg und Partner). In the 1960s and 1970s, airports expanded to include large conglomerates around the terminal buildings. Jet bridge systems were introduced and the terminals themselves developed into an iconic building type, giving the arriving passengers a clear signal of having arrived. In the 1980s the filigree and highly glazed architecture of Dulles International made a return: Stuttgart-Leinfelden (Meinard von Gerkan, 1981–1991), Stansted Airport (Norman Foster, 1981–1991) and Kansai International in Osaka (Renzo Piano, 1987–1994) are typical examples of this, setting a trend that continues today.

The 'traditional' airport city, including core tasks and passenger conveniences, has expanded to an entire 'aerotropolis', serving not just air travel but becoming almost a town in its own right, hosting all kinds of

commercial facilities and services. A large cluster of separate units (outlet and retail zones, factory zones, office zones) centers around the airport city and takes advantage of its privileged position, close to everywhere around the world. This formal structure is similar to a metropolis, centered around the downtown districts. Like the harbors of early modern times, the railway station eras of the 19th century and the highway-adjacent industrial zones of the 20th century, airports are regions of fast economic growth, offering the perfect setting for global business.

This volume features airports built over the last 10 years. The first chapter is dedicated to entire airports or, in some cases, a complete revision of the airport's structural appearance. The second chapter features terminal buildings, either as the main part of a new facility or as the extension of an existing airport. Typical airport facilities, such as striking control towers or new VIP lounges, can be found in the final chapter. Many of the additional facilities portrayed in chapter three make the day-to-day operation of the airport possible. In all, the volume's 70 projects offer the reader a comprehensive range of modern airport architecture.



- ↑↑↑ | **Le Corbusier**: Sketch of a terminal, 1946.
- ↑↑ | **Ernst Sagebiel**: Airport Tempelhof, Berlin, 1936–1941. The roof of the 1.2-kilometer-long structure was meant to be used as a platform for 65,000 spectators.
- ↑ | **Ernst Sagebiel**: Airport Tempelhof, Berlin, 1936–1941. The architect of the Nazi-Air Force had a more rational style than Albert Speer.
- ↗ | **Eero Saarinen**: Dulles Airport, Chantilly, VA, 1958–1962: a rational long structure with a suspended roof supported by pillars above glass façades.
- | **Eero Saarinen**: TWA terminal at John F. Kennedy airport, New York City, NY, 1956–1961. Sculptural expressive form is reminiscent of a bird, with concrete spanned across the glass.



A white commercial airplane is shown from a low angle, flying towards the right. The aircraft is white with dark windows and a dark engine. It is flying above a thick layer of white, fluffy clouds. The sky above the clouds is a clear, deep blue. The text "ENTIRE AIRPORTS" is overlaid in the lower-left quadrant of the image.

ENTIRE AIRPORTS





↑ | Exterior view, Col. H Weir Cook Terminal
→ | Entrance to terminal

Indianapolis International Airport

Indianapolis

The Col. H. Weir Cook Terminal at Indianapolis International Airport is a complex that includes a dual-level terminal situated midfield between the two main runways. The building accommodates ticketing and check-in, central passenger security, baggage claim area, US customs and border protection facilities, offices and 40 gates that accommodate a range of narrow and wide-body aircraft. The curved roof creates a symbolic gateway to the region. The planning emanates from Civic Plaza, a central 200-foot-diameter skylit gathering place that accommodates retail and concessions and provides access to passenger security screening checkpoints.