

about

## **WARNING ABOUT WAITING**

when airports hijack our attention

### **Research work in design**

2021-2022

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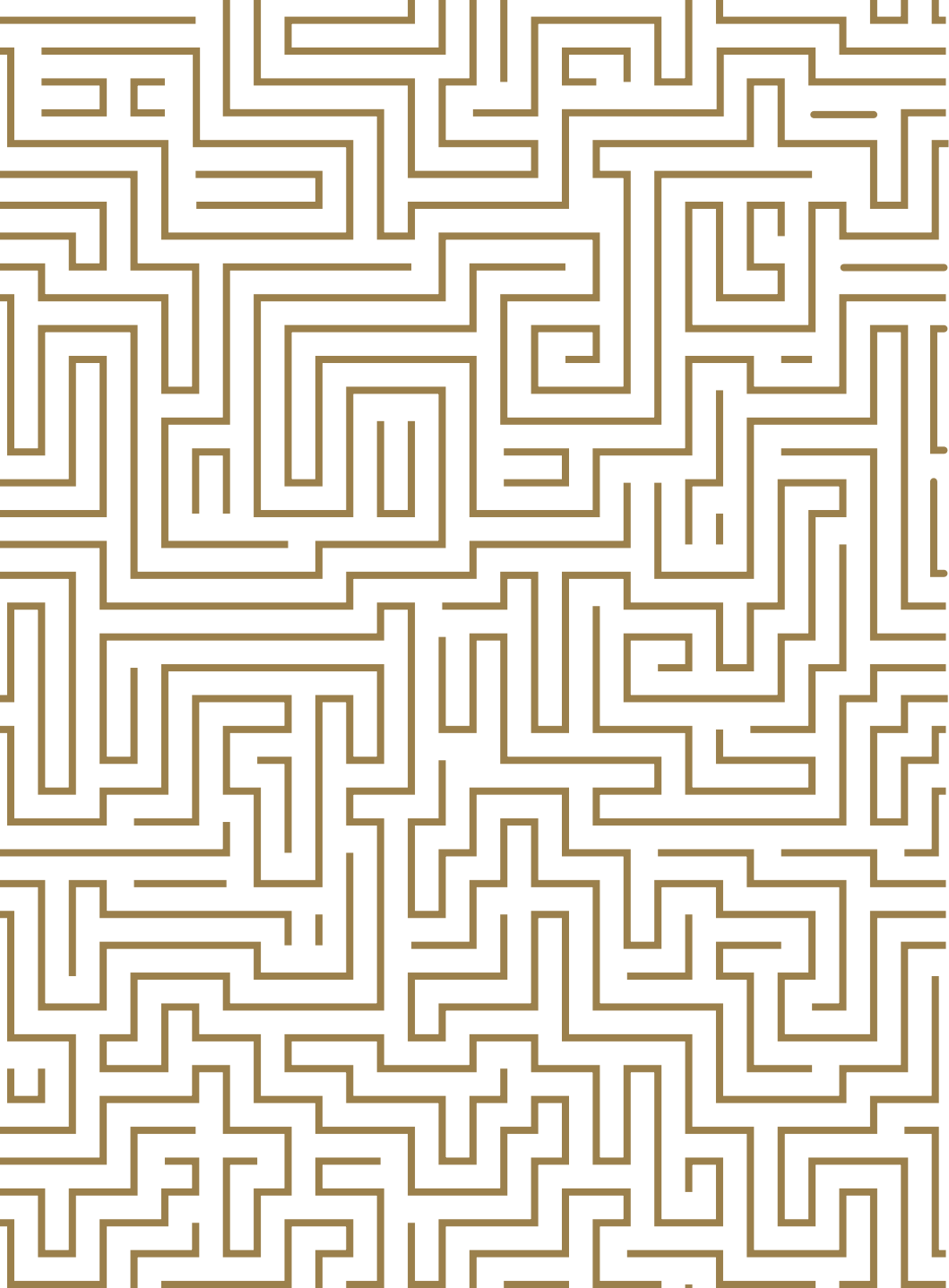
# FORWARD





For an abstract that deals with the international dimension of design, I found it relevant to focus on a particular place of waiting: airports. Actually, it is not the context I originally chose, I preferred to focus on smaller waiting areas with which I was more familiar and where I could test my devices and evaluate my design actions. Nevertheless, I found this international research very interesting as it allowed me to step back to enrich my thinking and better define my objectives as a designer: what I wanted to go for and what I wanted to avoid.





WAITING TO FIND A SPACE IN A CROWDED CAR PARK

WAITING TO CHECK IN

WAITING FOR YOUR BOARDING PASS

WAITING AT THE SECURITY CHECKPOINT

WAITING AT THE GATE

WAITING TO BOARD THE PLANE

WAITING TO TAKE OFF

WAITING TO LAND

WAITING TO CHECK YOUR ID

WAITING FOR LUGGAGE

WAITING FOR A TAXI, A FRIEND OR A STRANGER

AIRPORTS ARE AN EXPERIENCE OF WAITING IN ITSELF.

# INTRODUCTION







### AIRPORTS ARE AN EXPERIENCE OF WAITING IN ITSELF.

They are also places that link all the countries of the world, that reflect cultures or, on the contrary, are the result of cultural smoothing, that reflect wealth, or are, on the opposite, a make-up to camouflage the poverty of a country... Airports are a kind of façade between a country and the rest of the world, they are both the first and the last experience that a traveller has of a country. The time spent in an airport is crucial to the experience of a trip. With this in mind, it is in the best interest of travellers to make their wait as extraordinary as possible, especially in touristic countries. There is even an annual award for the best airport, the World Airport Awards by Skytrax. In poorer countries, the priority is not the comfort of the departure lounge, but having an airport can in itself be a victory for being better connected to the rest of the world.

Besides, travellers can be very different: a holidaymaker going on a trip with his family, a couple going on their honeymoon, a businessman who has to sell products abroad, an expatriate coming back to his home country on holiday, migrants trying to find better living conditions... And their way of waiting can be very different too: the businessman is studying his file in advance, while the couple is kissing, the children are bickering and the parents are trying to calm them down, the migrants are stressed at the idea that their documents might be refused, the expatriate is apprehensive about finding his family after a year of absence... The airport is a place that brings all these people together, with such different histories, used to flying or not, speaking the same language or not...

In any case, in general, waiting in airports is often unpleasant and stressful. If this waiting time cannot be compressed or reduced, various devices can be put in place to divert the attention of travellers and give them a better experience. We will look at the different focus points offered by airports through certain devices or services to describe their benefits and limitations from an environmentally responsible point of view.

# RELAXATION

WHEN OUR ATTENTION  
IS TURNED TOWARDS

Aware of the stress that waiting can generate, some airports have decided to give priority to the relaxation of travellers. This is how you can discover a swimming pool on the rooftop of Changi Airport in Singapore (SIN). Besides the pool, you can find jacuzzis, lounge chairs, poolside bar and shower facilities, and you can also get a massage. Same in Helsinki Airport, with a 1,000-square-foot lounge, where you can find six private shower suites, a wine and champagne bar, a steam room, four saunas, a stone bath, and a mineral pool. In Japan, the New Chitose Airport (CTS) features indoor and outdoor hot springs, with water directly from the source. As well as, relaxation chairs, rooms, massages, a stone sauna and various treatments and massages.

All these services are, of course, not free of charge and are mostly reserved for first class travellers. So the experience you have in these airports is defined by your wallet: the richer you are, the more you can relax and have a good time while waiting for your plane. This is far from being a solution for everyone, and those who do not have access to it may even feel frustrated and worse off.

“THE EXPERIENCE YOU HAVE IN THESE AIRPORTS IS DEFINED BY YOUR WALLET: THE RICHER YOU ARE, THE MORE YOU CAN RELAX AND HAVE A GOOD TIME WHILE WAITING FOR YOUR PLANE.”



Also subject to a charge, it is possible to rent a room, a snooze cube like in London Heathrow, Munich, Tokyo and Amsterdam. You can relax and take an hour-long nap for \$21. The most expensive nap in the universe, and as previously mentioned, not everyone can afford it.

Other solutions have emerged, like the PUP program or “Pets Unstressing Passengers”. This program is intended for anxious travellers passing through Los Angeles International Airport (**LAX**). They can play with a “therapy” dog to ease their nerves. Volunteers are constantly walking 30 dogs around the gates for any passengers needing some comfort. The idea has spread through the United States and you can also find therapy dogs in Chicago, Detroit, and Memphis airports.

Here the question of animal well-being arises, as the animal is passed from hand to hand during the day and has no contact with the outside world. The animal becomes a cuddly object, a comforting toy that passengers come to stroke to calm themselves in a rather selfish way.

Besides, a nice initiative has emerged in San Francisco International Airport (**SFO**), where you can find yoga rooms for free. These are spaces of relaxation, of self-reflection to make waiting and flying a lot less stressful. The rooms are equipped with mats, pads and other accessories to help travellers catch a few minutes of Zen time.



Even if the yoga practice is not guided and is open to the travellers, this space creates a bubble of serenity and well-being that I would like to bring closer to my research work as a designer. Everyone is then free to refocus, to concentrate on what really matters to them without being caught up in the external environment. On the other hand, by cutting themselves off from their environment in this way, people obviously maintain a rather individual relationship to their waiting and **it might be interesting to go further and propose devices that bring people together.**

Finally, it is possible to find chapels in airports. Originally built and reserved for airport employees, they have become places of worship open to all travellers. The majority are interfaith and in the United States more than half of the busiest airports have one. Now they are spaces for meditation and reflection and even if many still offer worship services for each of the faiths represented, they all aim to provide a much-needed spiritual refuge from the stresses of air travel. **As a designer, my work will not be about spirituality and religion, but it is interesting to note how it can be a source of calm, a way of refocusing and making the wait less stressful and heavy.**

**“IT MIGHT BE  
INTERESTING TO  
GO FURTHER AND  
PROPOSE DEVICES  
THAT BRING PEOPLE  
TOGETHER.”**





Changi International airport  
Fish spa  
© Changi airport group



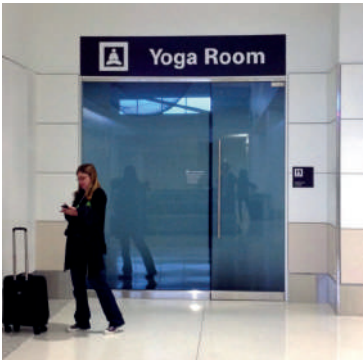
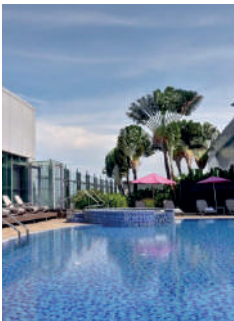
Changi International airport  
Spa  
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Changi International airport  
Snooze lounge  
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Changi International airport  
Rooftop swimming pool  
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San Francisco International Airport  
Yoga Room  
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Los Angeles International Airport  
PUP program  
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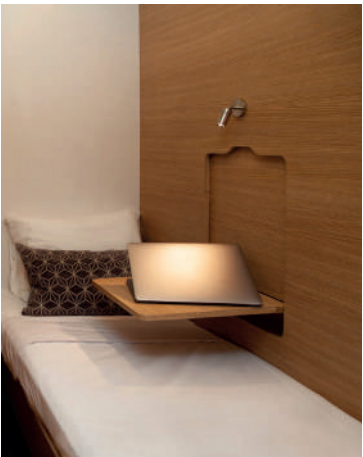
Logan Airport Boston  
Our Lady of the Airways Chapel  
© Randall Armor







Dubai International Airport  
Nap devices  
© Snooze cube



Dubai International Airport  
Nap Pods  
© Sleepbox



Kyoto Airport  
Nine hours capsule hotel  
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# ENTERJAJAMINT

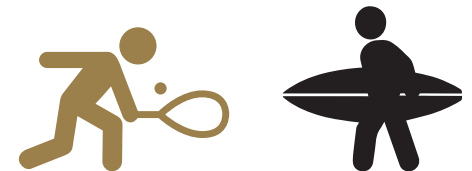
WHEN OUR ATTENTION  
IS TURNED TOWARDS



There are also many activities to fill the waiting time. In Portland International Airport (**PDX**), you can find a 1920s Hollywood-inspired mini cinema and watch movies for free. Same in Minneapolis-St. Paul Airport, Singapore's Changi Airport, Hong Kong International and South Korea's Incheon. This idea is interesting but it is not a moment of sharing, people are passive, they do not choose the film, and knowing that they are going to be sitting in a small space during the whole flight, one may wonder whether this device is the most adapted to an airport.

Conversely, in Hamad International Airport in Qatar (**DOH**), for an entrance fee of around \$48 you can have access to a variety of recreational spaces, such as an indoor swimming pool, hydrotherapy tub, and a full gym. If you pay more, you can also hit the squash courts or book an anti-jet-lag massage or a rejuvenating facial.

More original, the Incheon Airport in South Korea (**ICN**) offers an artificial ice skating rink, called the Ice Forest that is open all year round: travellers can get a few minutes of fun and exercise. The rink is big enough to hold up to 150 skaters. Even more extraordinary, every summer in Munich Airport (**MUC**), a wave pool is set up in its centre, and people can surf and take lessons. Around 4,000 people utilize the airport's surfing feature each year.

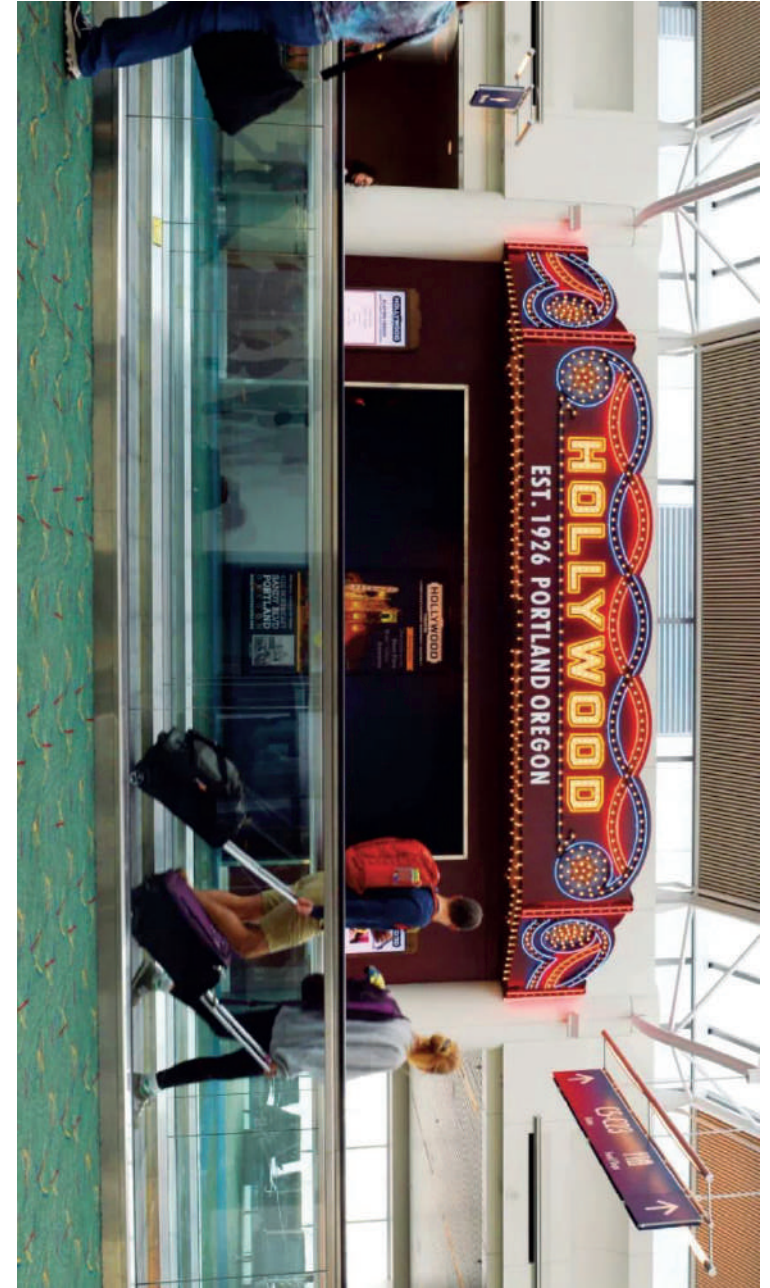


The fact that these waiting places become living areas is in a way interesting, but it is also necessary to consider the ecological impact of such facilities, especially the ice rink or the wave pool. Flying is already a very polluting means of transport and adding such energy-intensive activities is highly debatable. They are good ways of having fun and making time fly but their ethical dimension is not questioned at all. Moreover, except for the cinema, all these activities are charged for and reserved for a certain elite who can afford to fill their waiting with ice skating, sport or surfing. In light of this, my aim would be to offer devices that are accessible to all, low in energy requirements and free of charge.

“IN LIGHT OF THIS, MY  
AIM WOULD BE TO OFFER  
DEVICES THAT ARE  
ACCESSIBLE TO ALL,  
LOW IN ENERGY  
REQUIREMENTS AND  
FREE OF CHARGE.”



Portland International Airport  
1920s Hollywood-inspired cinema  
© Courtesy Mark Shimahara





Munich Airport  
Wave pool and surfers  
© Flo Hagena

Incheon Airport  
Ice forest - artificial ice skating rink  
© Incheon Airport



# CULTURE

WHEN OUR ATTENTION  
IS TURNED TOWARDS

Amsterdam's Schiphol Airport (AMS) includes a curated mini art museum in partnership with the Rijksmuseum. The airport has carved out space for rotating exhibitions of masterpiece paintings, including famous works from Vincent Van Gogh. Admission is free and the project would be wonderful and laudable if the main purpose was not to sell as many derivative products as possible. A shop is established directly in the international terminal and the paintings are in a way the shop windows that allow to sell more sunflower cups and Van Gogh socks. On the other hand, the airport also welcomes works from the Dutch design week and for this, the productions are not monetised but simply exhibited in the different terminals.

Besides, Amsterdam's Schiphol Airport opened a library in 2011. Airports are becoming more and more like cities where you can do everything, but Schiphol was lacking a library. So this project was set up, in partnership with other libraries, to offer travellers free access to books. Either in Dutch or translated, the books are a showcase of Dutch culture for people in transit who only visit the airport and perhaps nothing else in the Netherlands. The aim is to introduce passengers to Dutch culture in an accessible way. The books are not complicated, often simple stories with lots of pictures and short, easy texts. This approach to publishing is interesting because the books become the embodiment

“AIRPORTS ARE BECOMING  
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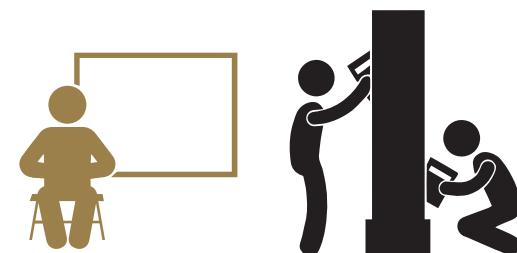
of Dutch culture, while remaining synthetic and pleasant to read. The aim is above all to make travellers, who have just made a stopover, want to extend their stay another time. But it can also be seen as a way of exporting culture and giving passengers a quiet moment with books.

Changi International Airport in Singapore (SIN) has decided to optimize the time of travellers waiting for their flight and offer them artworks to admire, to contemplate. The airport is dotted with striking art exhibitions. **There, connection to art is completely free of any profit motive and offers a contemplative experience that I find very interesting.** The Kinetic Rain, created by German design firm Art+Com and billed as the world's largest kinetic sculpture, allows you to spend a meditative moment. The artwork is composed of copper-plated aluminium raindrops, suspended from a thin wire, which are programmed to form different shapes such as kites and planes. **This idea is really great because as the shape is in constant motion, the travellers focus on it but at the same time they can think, let their ideas go and enter a form of meditation.**

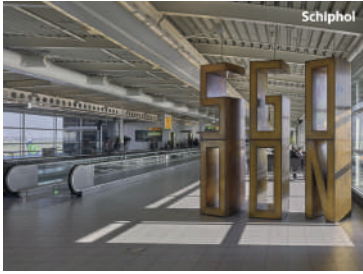
**"AS THE SHAPE IS IN  
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There is also a kinetic art installation called A Million Times at Changi, where the hands of over 500 clock faces spell out greetings and form other hypnotic cadences. Elsewhere, wired birds hover over the departures hall, or murals adorn and enliven one of the airport's underground passages. Finally, about music, the Nashville Airport (BNA) has been offering live music to travellers since 1988. There are six performance areas set up throughout the airport, and more than 700 performances per year. Access to these concerts is free and allows you to spend the waiting time in music, so I can see no drawback about this idea since people are gathered and listen to a same sound. **It could be a really strong and powerful experience which creates invisible links between travellers and that immerses them in the same atmosphere.**

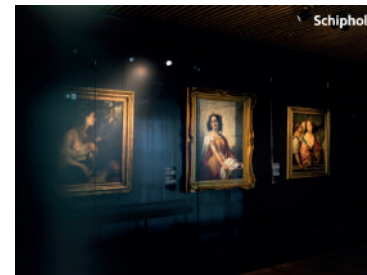
**"A REALLY STRONG AND POWERFUL  
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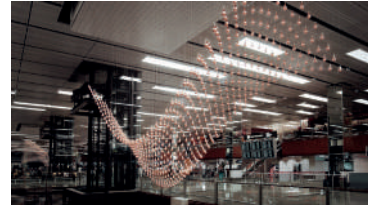
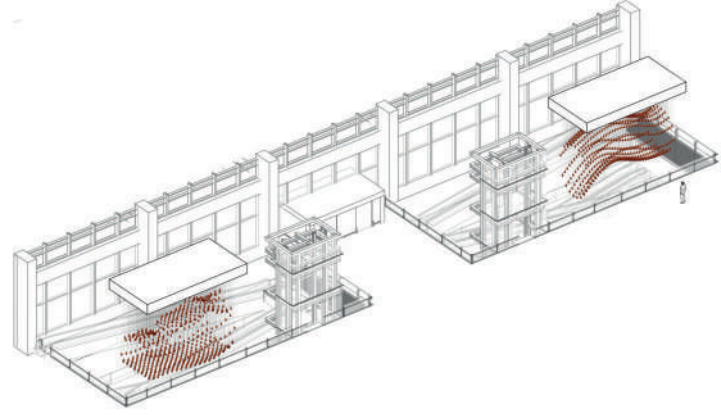
Schiphol Airport  
Dutch design week artworks  
© Schiphol



Schiphol Airport  
Museum and shop  
© Schiphol



Schiphol Airport  
Library  
© Schiphol



Changi International Airport  
Kinetic rain  
© Art+Com studios





Changi International Airport  
Kinetic rain  
© Art+Com studios

# TECHNOLOGY

WHEN OUR ATTENTION  
IS TURNED TOWARDS

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Airports have also joined the global trend of digitalisation, of developing new technologies for different purposes, whether interesting or frightening.

A horror sight is the Media Tunnel at Incheon International Airport (ICN). A LED wall has been built to immerse travelers in a colourful atmosphere, but it has little value since it is an ephemeral place of passage and deploys a gigantic device for barely a few minutes on the 90 metre conveyor belt. This is nothing more than a highly unethical technological exploit.

Besides, more and more video games are present in airports. For instance, the Dallas Fort Worth Airport in Texas (DFW) has introduced two gaming lounges into the airport, owned and operated by the company Gameway. Their purpose is to expand in the future and make airports as entertaining as possible according to Jordan Walbridge, president of Gameway.

“THE PURPOSE IS TO  
EXPAND IN THE FUTURE  
AND TO MAKE AIRPORTS  
AS ENTERTAINING  
AS POSSIBLE”



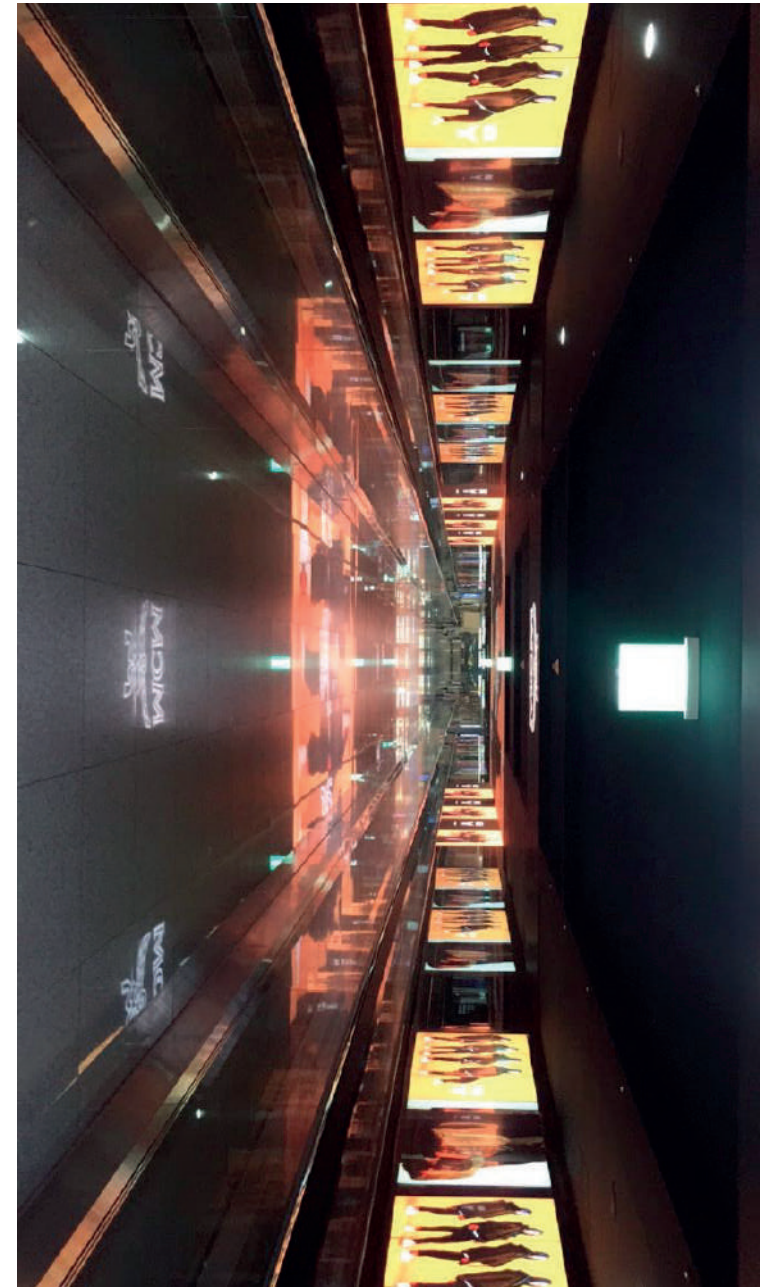
The benefits of being with other people, of waiting and having free time are then completely lost if it is a matter of escaping into a virtual world disconnected from reality. In view of this, my aim is to propose devices that are anchored in a tangible, real world.

On the other hand, Japan's Haneda Airport (HND) uses technology in a caring way providing autonomous wheelchairs to travellers with limited mobility. Created by Panasonic, these chairs make passengers independent from airport employees to get around. They simply enter their destination gate on a smartphone and the electric wheelchair will find the best route to take them there. However we may wonder whether replacing a human action and presence by an automatic wheelchair is such a good idea. It could also be a way of earning money by not having to pay employees to do this job so I finally do not know what to think about it.

“IN VIEW OF THIS,  
MY AIM IS TO PROPOSE  
DEVICES THAT ARE  
ANCHORED IN A TANGIBLE,  
REAL WORLD.”



Incheon International Airport  
Media Tunnel  
© Knowck







Incheon International Airport  
Media Tunnel  
© Knowck

Dallas Fort Worth Airport  
Video game room  
© Gameaway



Haneda Airport  
Self-contained wheelchairs  
© Panasonic



# NATURE

WHEN OUR ATTENTION  
IS TURNED TOWARDS

Finally, there is a growing desire to bring nature back into the waiting areas. It is hoped that by focusing people's attention on it, their behaviour will change when they are back outside or in nature.

Malaysia's Kuala Lumpur International Airport (KUL) itself is located in the middle of the rainforest, and the designers used the concept "airport in the forest, forest in the airport" to build it. In a great greenhouse that can be visited, a large number of plants, trees, waterfalls, etc. are gathered.

The most impressive airport about gardens and vegetation is actually the Changi International Airport in Singapore (SIN). There is a huge variety of beautifully themed gardens scattered around the terminals: an enchanted Garden, a Butterfly Garden, a rooftop Cactus Garden showcasing 100 species of cacti and succulents from Africa and the Americas, a Sunflower Garden, an orchid garden with a collection of the colourful blossoms on display, including their own hybrid, the Dendrobium Changi Airport orchid ...

Vancouver International Airport (YVR) features marine exhibits with two huge aquariums, in which you can find wolf eels, sea stars, tiger fish, anemones, jellyfish... It is exactly the same principle as in Amsterdam's Schiphol Airport: the exhibit has been created in partnership with the Vancouver Aquarium, so it could be a kind of advertising to encourage people to visit it.

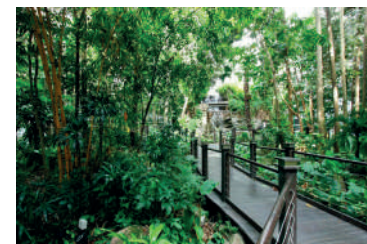
**"IT IS HOPED THAT BY  
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OUTSIDE OR IN NATURE."**

It is also possible to stargaze at Haneda Airport in Japan (HND), to admire the Milky Way from a planetarium set up in the centre of the airport.

Even if airports are disconnected from nature, it is interesting and already a good step to reinsert plants in those places of waiting. Nothing to sell, it is just about admiring nature, even if it is behind a glass wall.

Another airport offers a very original way of waiting. Since grassy meadows, woodlands, and marshes surround Zurich International Airport (ZRH), the airport offers bike hire, roller skates and Nordic walking poles to get some fresh air and let off steam. No less than 13 kilometres of trails can be explored in the surrounding area. This idea is really great, since instead of waiting seated, people can enjoy nature. If not every place can provide this kind of things, it is still possible to create windows to the outside world that also allow for escape. If people can not always get into hiking boots to go for a walk, it would be interesting to offer them the same breath of fresh air through design as if they had gone for a walk in the forest.

“IT WOULD BE INTERESTING TO OFFER THEM THE SAME BREATH OF FRESH AIR THROUGH DESIGN AS IF THEY HAD GONE FOR A WALK IN THE FOREST.”



Kuala Lumpur International Airport  
The inner airport jungle  
© Malaysia Airports





Jewel Changi airport  
© Changi airport group



Jewel Changi airport  
© Inge Kanakaris



Sunflower garden  
© Changi airport group

Orchid garden  
© Changi airport group



Enchanted garden  
© Changi airport group



Butterfly garden  
© Changi airport group





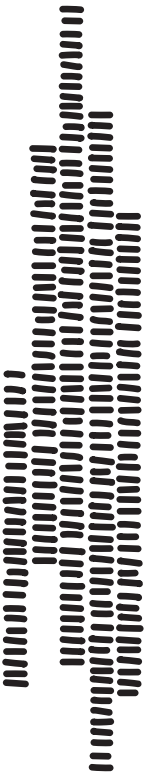



Vancouver International Airport  
Aquarium  
© Ken Eckert



Haneda Airport Tokyo  
Planetarium  
© TIAT

# CONCLUSIONS





Apart from the inclusion of nature in airports, no ecological aspect is taken into account in these places. Air travel is already a very polluting means of transport and airports are created in the same logic of denial of the climate emergency and ecological crises. Moreover, it can almost seem like green washing when it comes to planting trees in the middle of an airport. In one sense these large green spaces invite contemplation and in another they are also a way for airports, and through them countries, to display a form of care for nature that is actually non-existent. It is indeed striking that it is in cities like Singapore or Kuala Lumpur, that are both extremely polluted, that major efforts are made to transform airports into green parks. The aim is clearly to turn people's attention away from the reality of the countries and towards a green artifice.

To numb people's attention, it is possible to offer them relaxation devices (unfortunately only accessible to the richest), to keep them busy with various activities (also accessible for the most part only to people with a well-filled wallet), to immerse them in screens, light, video games, to make them believe in artificial paradises that are very different from the outside reality...

But it may also be a matter of inviting them to contemplate, to pause, to step back. In this case, the question that arises as a graphic designer is whether graphic design can be used in these airport waiting rooms to transform them into a space to contemplate, where it is possible to refocus attention on oneself but also to be more present to one's environment. Beyond contemplation, the objective is also to suggest that people take the time to meet, to create an ecosystem of very different individualities and to create devices that would allow them to share their experiences, encounter each other, and exchange information... Indeed beyond the plants in their greenhouses or the fish in their aquariums, it is cultural biodiversity that is the most important thing in airports and elsewhere.





ZRH Zurich Airport  
HND Tokyo Haneda Airport  
YVR Vancouver Airport  
SIN Singapore Changi Airport  
ICN Seoul Incheon Airport  
DFW Dallas Fort Worth Airport  
AMS Amsterdam Airport Schiphol  
BNA Nashville Airport

MUC Munich Airport  
DOH Hamad Airport  
PDX Portland Airport  
SFO San Francisco Airport  
CTS New Chitose Airport  
HEL Helsinki Airport  
LAX Los Angeles Airport  
KUL Kuala Lumpur Airport

they are all  
international airports

MAP OF THE AIRPORTS MENTIONED IN THE RESEARCH WORK

## BIBLIOGRAPHY

### Books

*Wait marketing*

*Communiquer au bon moment au bon endroit*

Diana Derval, 2006

Éditions Eyrolles

ISBN 270813776X

*Aliénation et accélération*

*Vers une théorie critique de la modernité tardive*

Hartmut Rosa

Éditions La découverte

ISBN 978-2707182067

### Articles

*“The psychological cost of waiting”*

*Journal of Mathematical Psychology*

Edgar Elías Osuna, 1985

*“Traveler anxiety and enjoyment: The effect of airport environment on traveler's emotions”*

*Journal of Air Transport Management* 57

Vanja Bogicevic , Wan Yang, Cihan Cobanoglu, Anil

Bilgihan, Milos Bujisic, 2016

*“ A Study on the Effects of Waiting Time for Airport Security Screening Service on Passengers’ Emotional Responses and Airport Image”*

*Sustainability*, MDPI, vol. 12

Mun Hwan Kim, Jin Woo Park and Yu Jin Choi, 2020

### Web

[www.worldairportawards.com](http://www.worldairportawards.com)

[www.rdu.com/travel-info/wait-times](http://www.rdu.com/travel-info/wait-times)

[www.airport-technology.com](http://www.airport-technology.com)

[www.knowck.com](http://www.knowck.com)

[www.dfairport.com](http://www.dfairport.com)

[www.lawa.org](http://www.lawa.org)

[www.schiphol.nl](http://www.schiphol.nl)

[www.changiairport.com](http://www.changiairport.com)

[www.flughafen-zuerich.ch](http://www.flughafen-zuerich.ch)

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A PLEASURE TO WORK WITH HER  
A JOY TO EXCHANGE IDEAS  
AND TO DO IT ALL IN ENGLISH

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## WARNING ABOUT WAITING

when airports hijack our attention

This research work is a world tour of the devices and services available to travellers in airport waiting areas to make time go faster. Through these devices, the attention of travellers is occupied, diverted, manipulated and if their aim is to make time fly and to make waiting more pleasant, one may ask whether they are legitimate from an eco-responsible point of view.

The edition you are holding in your hands is thus a state of the art to determine which forms of attention are desirable in airport waiting areas and which are not. The aim is to define, based on examples, the stakes in these places for an environmentally responsible designer.



the journey of  
the little drop of  
attention