Touchdown

Helping airport travellers find calm and regain agency through touch.

In the rush of an airport, even waiting can feel tense. With everyone hurrying past, passengers can feel uneasy about what comes next.

Inspired by the comfort of touch, Touchdown takes a service design approach that links physical touchpoints with an online space to record and share feelings.

By choosing when to pause and how to engage, passengers can regain a sense of control and feel less anxious during their journey.

Service Design / Product Design / Critical Design / Individual Project

Background

Personal Experience

My own journeys revealed anxiety and habits of self-regulation.

As an international student who constantly travel between countries, airports have become a familiar yet unsettling place. There is quite kind of pressure in the air, I get **nervous and anxious** for no clear reason.
Waiting in lines, passing security check, following instructions, I slowly began to notice how every small detail seems to **guide and control** what I do.
Gradually, even without being told what to do, I noted myself following **invisible rules** as if they were already built into me.



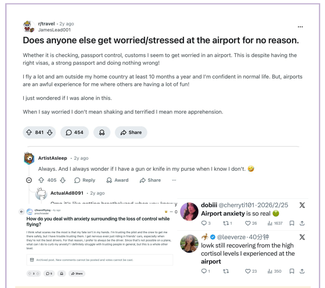
A Shared Unease

I explored travellers' first-hand accounts on social media.



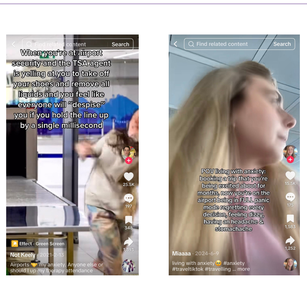
Security checks, border questioning and fear of judgement make travel feel stressful.

Chinese social media



Even frequent traveller describe unexplained anxiety and a loss of control.

Global social media



Thousands of likes and comments echo the panic and pressure shown in airport videos.

High-engagement short videos

Travellers' posts reveal a recurring sense of unease and lost control.

The emerging problem

Small controls accumulate into emotional and behavioural costs.



Anxiety



Loss of control



Reduced agency



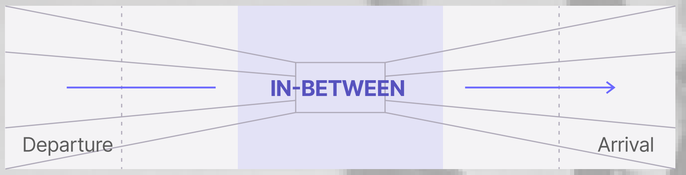
Self-regulation

Anthropological Research

An anthropological lens on how airports shape emotion and reinforce subtle forms of control.

1 Airport as a space

First, I examined the spatial character of airports.



Liminality
Victor Turner · 1969

Between departure and arrival, airport travellers leave familiar roles behind. Waiting for clearance and boarding **suspends everyday routines**, creating **uncertainty**.

Non-place
Marc Augé · 1995

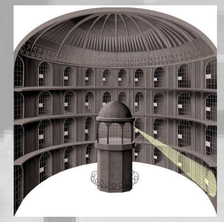
Airports organise travellers through passports, tickets and instructions rather than lasting relationships. People pass through as temporary passengers, often feeling **anonymous and disconnected**.

A place between roles, routines and belonging.

2 How power operates

Next, I studied hidden power relations in public spaces.

Michel Foucault

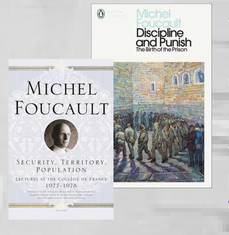


Micro-physics of power · 1977

Power works through airport layouts, schedules and everyday procedures, **organising bodies and conduct** through many **small, repeated acts**.

Panopticism · 1977

Knowing they may be observed through cameras or screening, travellers **monitor their own behaviour** without anyone needing to intervene.

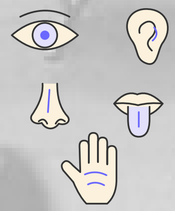


Governmentality · 1978

Travellers manage time, belongings and behaviour without constant orders. Airport rules become **personal responsibilities**, directing **autonomy towards compliance**.

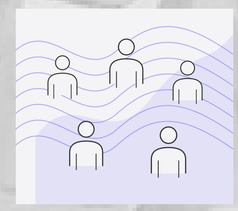
3 Effects on passengers

Finally, I connected these findings to understand why certain feelings intensify during the journey.



Multi-sensory anthropology
Constance Classen · 1997

Sensing is culturally shaped. Airport signs, announcements, searches and crowding make **authority felt** through **multi-sensory experiences**, intensifying the emotion.



Affect
Brian Massumi · 1995

Affect is **bodily intensity** before named emotion. Airport tension can spread between travellers, intensifying **shared anxiety** and limiting **felt agency**.

Design Challenge

How can spaces of control like airports be reimagined to **soften anxiety** and subtly **return a sense of agency** to passengers, without overtly disrupting their order?

Can design introduce **moments of calm** within airport spaces, gently diffusing the subtle forces of control embedded within them?



User Research

Pain Points Analysis

Based on my participant observation through airport travel.

Stakeholders:

Check-in Agent
Enforces document and baggage rules; onward travel requires staff approval.

Security Officer
Requires bodily compliance and surrendered belongings before passengers can proceed.

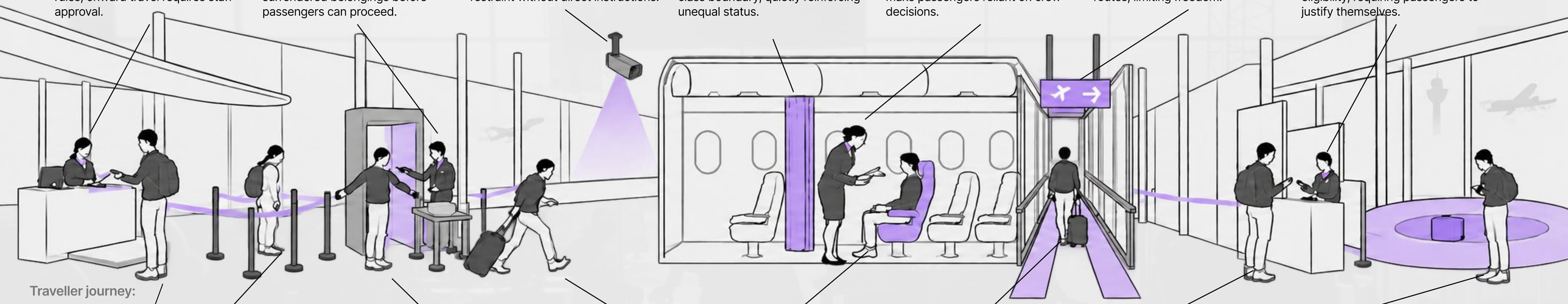
CCTV
Prompts self-monitoring and restraint without direct instructions.

Cabin Curtain
The curtain asserts an invisible class boundary, quietly reinforcing unequal status.

Cabin Crew
Safety rules restrict movement and make passengers reliant on crew decisions.

Wayfinding Signs
Channels passengers along fixed routes, limiting freedom.

Immigration Officer
Questions identity and judges entry eligibility, requiring passengers to justify themselves.



Traveller journey:

Traveller · Check-in
Anxious and dependent on others' approval to proceed.

Traveller · Queue
Others' impatience adds unease; barriers dictate position and pace.

Traveller · Security
Exposed and vulnerable, losing control over one's movement.

Traveller · Boarding
Time pressure drives self-urging, leaving little freedom to slow down.

Traveller · Cabin
Unequal space limits privacy and movement; crew reliance deepens helplessness.

Traveller · Arrival
Rushed along fixed routes, feeling been guided and controlled.

Traveller · Immigration
Anxiously awaiting the officer's entry decision under scrutiny.

Traveller · Baggage
Uncertain about the waiting time.

Research Summary

20 questionnaire responses collected from people with airport travel experience.

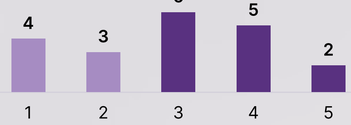
1 Survey snapshot

80%

16 of 20 rated their anxiety between 2 and 5.

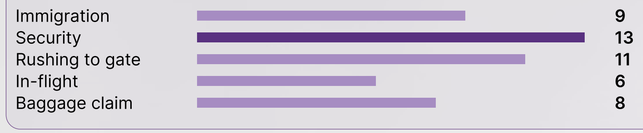
2 Anxiety rating

1 = not anxious · 5 = very anxious



3 Most unsettling moments

16 travellers · multiple choices



Travellers' Words



Claire
23 · Master's student
4 airport visits / year

"While the officer holds my passport, I rehearse my answer in English; even **a short silence** makes me worry I have said something wrong."



Tim
36 · Freelancer
12 airport visits / year

"Someone behind me sighed as I unpacked my laptop; **my hands started shaking**, and I rushed to clear the tray even though I knew the rules."



Liu
53 · Retired
2 airport visits / year

"After everyone around me collected their bags, I kept watching the same empty belt, afraid mine was lost and **unsure who I could ask**."

Opportunities

- Offer **indirect emotional support** alongside essential procedures.
- **Soften the anxiety** of being watched, directed and judged.
- Preserve a **sense of agency** within existing constraints.
- **Make room for feelings** that routine procedures overlook.
- Support **emotional grounding** during waiting and uncertainty.
- Encourage **belonging and empathy** in an impersonal setting.

Design Direction

This page traces my sources of inspiration and shows how my design thinking developed step by step.

Reference



Charing Cross Breast Unit

RCA · Chris Wood · 2016–2025

Light art and a calmer waiting layout support patients during stressful care.

Sensory cues can soften a stressful wait.



Settee

Milu Garcia · SCAD · 2024

Public furniture invites people to pause, lean and connect with others.

Shared use can build belonging.



Green Spaces

Katie Gaudion & Chris McGinley & Andrew Brand· 2012

Sensory garden activities sit alongside places to rest and retreat.

Give people a choice to engage.

Public-space Touchpoints

Public installations offer comfort, rest and choice to ease tension.

Research identified anxiety and lost control at three transitions.

After security

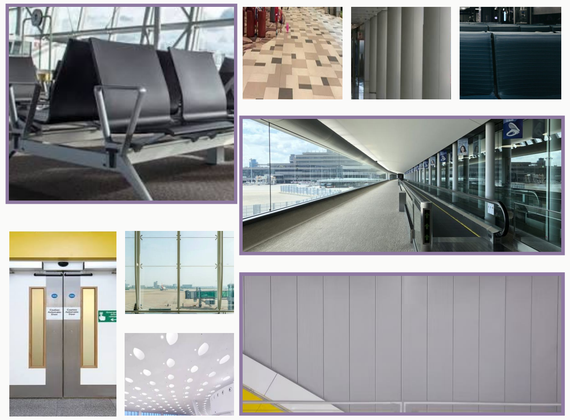
On arrival

After border control

On-site + online

The installation supports offline; the web links emotional records between touchpoints.

Placement Comparison



Seat armrest

Seated · easy reach

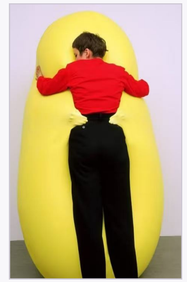
Corridor

Movable · clear route

Wall

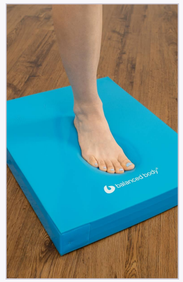
Vertical · saves space

Interaction Analysis



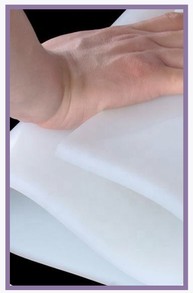
Body lean

Whole-body shift; less flexible while seated.



Foot press

Weight transfer; less convenient with luggage.



Hand touch

Sit or stand; control pressure and pace.

Ideation

Touch

Soft touch gives the hand a gentle sensation to focus on.

Exploring texture and resistance can bring attention back to the present.

Feedback

Light responds to each touch, showing that the action has been noticed.

Travellers control the pressure, pace and duration, helping restore a sense of agency.

Material Exploration



Organza

Light and soft; needs support.



TPU air

Yielding; needs sealed chambers.



Silicone

Soft contact
Elastic rebound
Easy to clean

Form Inspiration



Soft bell

A yielding shell for translucent silicone.

Floating

Lightness and a suspended rhythm.

Freedom

Fluid forms loosen fixed routes.

Jellyfish

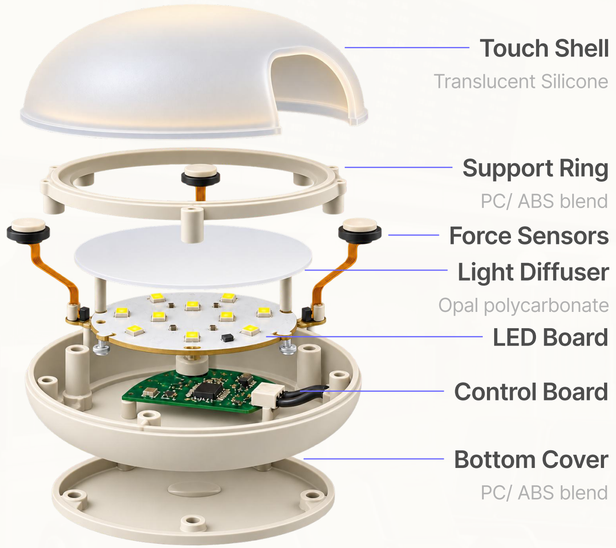
A soft shell carries light and a sense of ease.

Design Outcome

Research across three key journey stages informed the design of three interactive touchpoints.

Post-security Seating Area → Arrival Corridor → Baggage Claim

Interactive Installation · Touchdown



All three touchpoints share the same **tactile feedback** principle: gentle pressure deforms the silicone shell and triggers soft internal light; on release, the shell rebounds and the light fades.

The rounded surface, enclosed low-voltage electronics, and wipe-clean shell support **safer contact** and **routine hygiene**. Passive rebound and replaceable components are designed to **reduce maintenance costs**.

Touchpoint 01



Touch & Response

Post-security Seating Area

Gentle pressure **indents** the silicone surface and brightens its **warm glow**. On release, the surface **rebounds** and the light fades.

Soft touch offers **reassurance**. The surface's indentation, rebound and **light feedback** give travellers a sense of **agency**.

Touch nearby NFC to open

Touchpoint 02



Touch & Response & Pause

Arrival Corridor · Before Immigration

Press to **softly indent** the silicone surface, trigger a **warm glow** and **pause movement**. Release to let it rebound and the light fade.

Soft touch **eases anxiety**; choosing when to pause restores **agency** and **control** over the encounter's pace.

Emotion Orb

Tap it to increase the intensity of your feeling.

Move your finger around the circle to select different feelings.

Neutral · Anxious · Uneasy · Calm · Relaxed



Tap a previous colour dot to revisit and edit that moment.

Save a feeling and begin a new record of emotion.

Auto-positioning. Tap the location icon to select an approximate area when offline.

Reduce the emotion intensity.

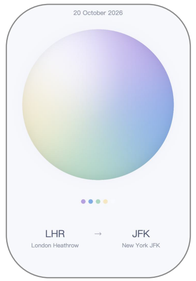
Touch nearby NFC to complete

Touchpoint 03

Journey keepsake

Emotions blend into **one colour** and flow into the shared installation.

After the **final NFC touch**, a **keepsake card** is created to save to the phone.



Touch & Response & Resonate

Baggage Claim

Pressing softly indents the silicone and reveals **blended colours** from another traveller's **uploaded emotion record**. On release, the surface **rebounds** and the light fades.

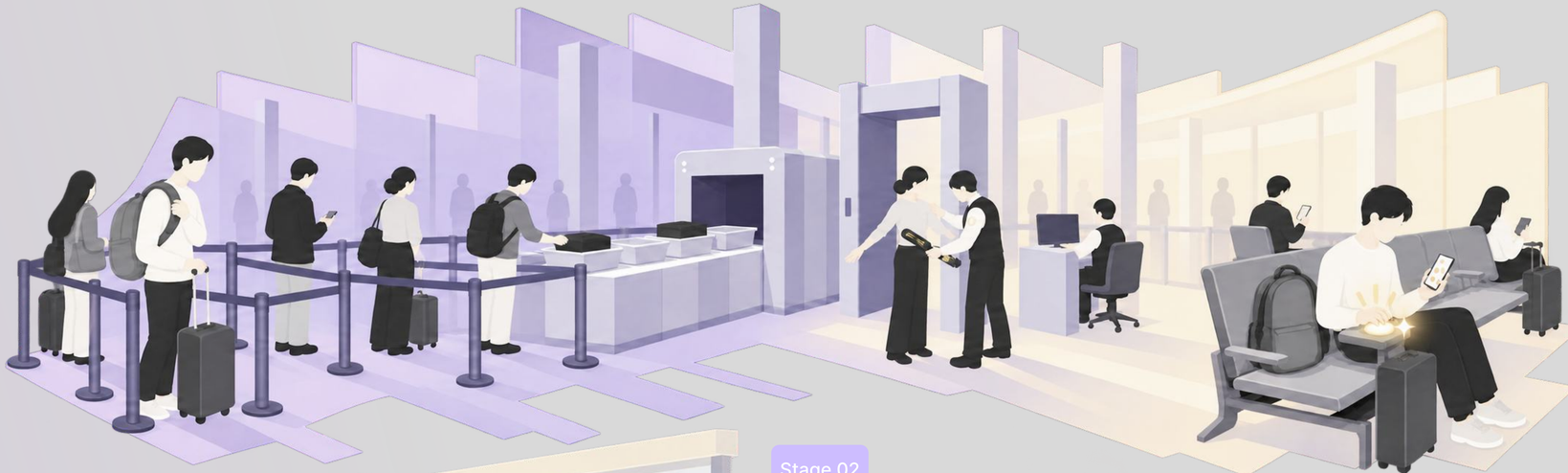
Through soft touch and shared colours, travellers' **emotions resonate**, inviting **recognition and connection**.



Mobile Web Experience

A mobile web experience for **recording and revisiting emotions**. It **connects the physical touchpoints** into one continuous airport journey.

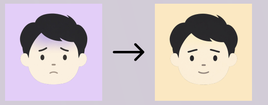
Passenger Journey Map



Stage 01

Security Screening

Queues and bodily scrutiny heighten **anxiety**, reducing **control** over time and movement.



Anxious → Reassured

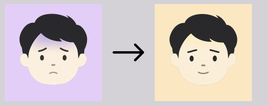
Departure Waiting Area

After security, a quiet pause offers **reassurance** and **control**.

Begin an **emotion diary** to carry through the journey.



Stage 02



Uneasy → Comforted

In Flight

Restricted movement and cabin hierarchies deepen unease and a sense of **exclusion**.

Arrival Corridor

Before immigration, a **self-initiated pause** restores a sense of **agency** within a tightly guided route.

Stage 03

Customs

Questioning and scrutiny leave passengers feeling **exposed** and **powerless** to decide when they can proceed.



Intimidated

↓



Connected

Baggage Claim

At baggage claim, a shared encounter turns private feelings into **recognition and connection**.

Complete the **emotion diary** and link it to the **shared wall**.



Service Scenarios

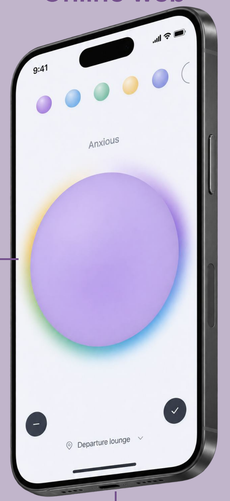


After security



Arrival corridor

Online web



After security

After security, a traveller rests a hand on the soft surface of the seat-mounted Touchdown installation. A gentle press brings a warm glow while they pause and regroup.

Arrival corridor

Along the arrival corridor, a traveller pauses to touch the freestanding installation. Light responds to the hand, creating a brief moment of choice.

Baggage reclaim

While waiting for luggage, travellers press the wall-mounted forms. Each touch lights up a point, turning an uncertain wait into a small, shared interaction.

Online web

Through the journey, travellers can use their phone to record feelings. A colour from that entry joins the shared wall at baggage reclaim, where another traveller can reveal it by touch.



Baggage reclaim

Evaluation Framework

Design Review · concept comparison and experience quality

Concept Selection

1 low / 5 high · core design priorities carry double weight (×2)

Evaluation criteria · weight	Light only	Touch + light	Touch + light + optional web
Calming potential ×2	2	4	**4**
Clear control & feedback ×2	1	4	**4**
Continuity across stops ×2	1	2	**4**
Phone-free access ×1	5	5	**5**
Low interaction effort ×1	5	4	**3**
Operational simplicity ×1	4	3	**2**
Weighted score /45	**22 /45**	**32 /45**	**34 /45**

Continuity raises the score, while extra actions and service needs reduce simplicity. The web earns its place only if its return value is clear.

Experience Design Review

Design judgement · 1 limited support / 5 strong support

Dimension	Design criterion	1	2	3	4	5
Presence	Supports a brief pause and focused attention.	○	○	○	●	○
Agency	Makes the touch-to-light response clear.	○	○	○	●	○
Ease of use	Keeps the interaction simple and easy to discover.	○	○	○	●	○
Reconnect	Encourages another encounter along the journey.	○	○	●	○	○
Continuity	Extends the experience through an optional web record.	○	○	●	○	○

18 /25 · A clear first encounter; weaker reasons to reconnect across the journey.

Refinement	Make the next node recognisable and give the optional web record a clear reason to return.

Design Reflection

When I follow a sign at security, I rarely stop to ask who decided where I should stand. I wonder whether my touchpoint **borrows some of that authority**. I chose the gesture, the glow that rewards it and the feeling I hoped would follow. In an airport, even a gentle invitation to pause can carry an expectation: **I should calm myself** and be ready to move on. **Who benefits from that calm** when the queues, scrutiny and uncertainty that produced the anxiety are still there?

I assumed that giving travellers something they could control would give them back a sense of agency. Yet **who feels free to reach out** in a place where a wrong move can draw attention? One person might press the shell out of curiosity, another because they think they are meant to. Someone walking past might be making **the freest choice of all**. Counting touches would tell me how often the installation was used. It could never tell me **how freely that choice was made**.

Future Directions

Beyond airports, these touchpoints could offer a moment of respite in other **high-pressure urban settings**, from crowded commuter stations to financial districts.



At the building's edge

A commuter touches the **fixed dome** to reveal a colour someone shared from their phone.

On the pavement

A **roaming touchpoint** pauses between office towers. A passer-by stops to feel the light respond.