We are 3XN. We believe that architecture shapes behaviour.
Our work is about people and space interaction.
We revisit the crime scene.

We have a post-occupancy evaluations on 10 of our buildings.
We take research into practice.*

* 20 researchers and 100+ innovation projects in GXN.
We also wrote an entire PhD on staircases.*

* Mille Sylvest, Situated Social Aspects of Everyday Life in the Built Environment (2016)
We have behaviour research programs with Oxford, Bartlett amongst others.*

* Architecture Shapes Behaviour Cluster.
How we understand behaviour.

- **Individual comfort**
  - The sweet spot between stimulation and calm
- **Social structure**
  - A framework for good social relations
- **Cultural identity**
  - The expression of values and norms
How we understand behaviour.

Cultural identity

Space

Social structure

Individual comfort
## Behaviour Findings

<table>
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<tr>
<th>The way we began</th>
<th>The way we were</th>
<th>The way we are</th>
<th>The way we will be</th>
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</thead>
<tbody>
<tr>
<td><strong>Private offices</strong></td>
<td><strong>Open Plan</strong></td>
<td><strong>Activity Based</strong></td>
<td><strong>Neighbourhood Choice</strong></td>
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<td>1980</td>
<td>2000</td>
<td>2010</td>
<td>2020</td>
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<tr>
<td>Hierarchical</td>
<td>Efficient</td>
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<tr>
<td>Perimeter offices</td>
<td>Collaborative</td>
<td>Variety and choice</td>
<td>Variety and choice</td>
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<td>Assigned seating</td>
<td>Assigned seating</td>
<td>Access to amenities</td>
<td>Access to amenities</td>
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<tr>
<td>Equitable</td>
<td>Views to outside</td>
<td>Unassigned free seating</td>
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<tr>
<td>Accessible</td>
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<td>Community</td>
<td>Community</td>
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<tr>
<td>Limited daylight and view</td>
<td></td>
<td>Space as a service</td>
<td>Space as a service</td>
</tr>
</tbody>
</table>
How can a building adapt to social and programmatic fluctuation?

A modular framework underpins the functional strategies of the facility and enables representation and ownership of stakeholders and user groups. The flexibility of the modular system enables spaces and places to overlap, change shape and form, to create new and diverse zones for different operations under the one roof.

It allows for interior and exterior spaces to flex, grow and shrink as needs require. It gives each module, or group of modules within to develop its own identity based on the requirement of a specific situation. The building becomes a responsive element that changes to meet the current and future needs of the various user groups and stakeholders.
Modular Concepts

Modular features intersecting with structural column

- Plan relationship to grid
- Facade to column connection
- Floor with multiple channel types
- Column to signage beams & glass ceiling
- Core to column & roof connection
- Columns with integrated profiles for rollers
Photovoltaic Cells

Reflected Daylighting + Passive ventilation

Reflective materials reduce solar gain

Low embodied energy materials

Modular construction with minimised waste

Exchangeable concrete structures

Targeted cooling for food products

Demountable walls & facades

Modular tenancies

Harvested waste energy from cooling systems
MOVEMENT OF THE ATRIUM THROUGH THE OLYMPIC HOUSE
SOCIAL SPACE LINKED TO THE CENTRAL STAIR ON ALL FLOORS
RETAINING 98%
STRUCTURAL WALLS
7.505 Tons of CO$_2$ *

EMISSIONS SAVED

* The results are based on a published Australian data.
7.505 Tons of CO$_2$ *
EMISSIONS SAVED
Equivalent to **2500 one-way flights**
from Sidney to Copenhagen
$130,000,000 MATERIAL + TIME SAVED
Increased Views / Daylighting
TYPICAL SPLICE DETAIL FOR ATRIUM INFILL PANEL AND DECON FLOOR