

CITY STREET⁴

STREETS FOR 2030
PROPOSING STREETS FOR INTEGRATED AND UNIVERSAL
MOBILITY

LJUBLJANA 23.&24.9.2020



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TRANSITION STREETS: A VIEW FROM PSYCHOLOGICAL SUSTAINABILITY PERSPECTIVE

OUTLINE

1. **Rapid Urbanization:** *Consequences and Implications*
2. **Sustainability & Sustainable Development:** *Current Solutions in Urbanism, and Limitations*
3. **Transition Movement:** *A Transformation of Behavior*
4. **Psycho-Social Sustainability:** *Redefinition*
5. **New Approaches:** *The Human/Environment Interaction (Science-informed design)*
6. **Our Approach:** *Drivers of Pro-environmental Behavior*
7. **Conclusions:** *Present and Future*

1. RAPID URBANIZATION



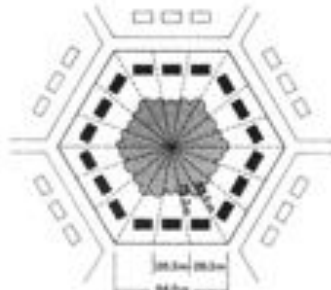
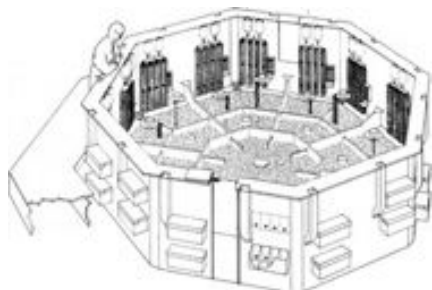


Hieronymus Bosch (1490-1510). "The Garden of Earthly Delights".
Source: https://en.wikipedia.org/wiki/The_Garden_of_Earthly_Delights

CONGESTION...IS IT 'THE GARDEN OF EARTHLY DELIGHTS'?



OR BEHAVIOURAL SINK?



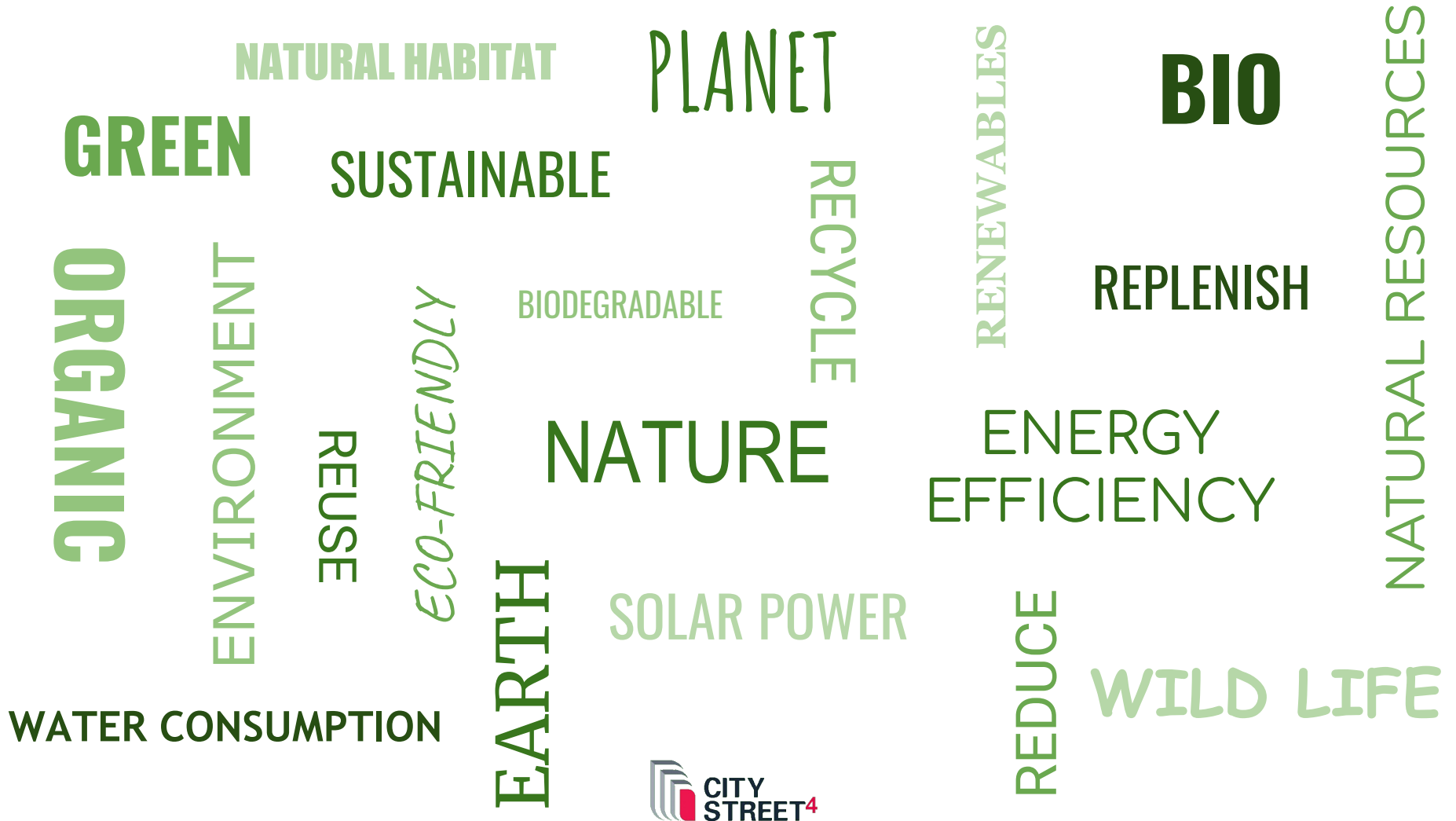
Rat Cities and Beehive
Worlds: Density and Design
in the Modern City (Adams
2011)



Source: <https://www.polyp.org.uk>

INCREASING CONSUMERISM

2. SUSTAINABILITY



SUSTAINABLE DEVELOPMENT (SD)



SUSTAINABLE DEVELOPMENT (SD)

ECONOMIC
NOT BEHAVIOURAL



SUSTAINABLE URBANISM



SUSTAINABLE URBANISM

PHYSICAL
NOT BEHAVIOURAL





Source:

<https://www.undp.org/content/undp/en/home/librarypage/corporate/sustainable-development-goals-booklet.html>

SDG, A NEW APPROACH TO CITIES' PLANNING & OPERATION?

NEW URBANISM

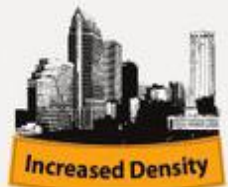


PRINCIPLES OF URBANISM





PRINCIPLES OF URBANISM



NEW URBANISM

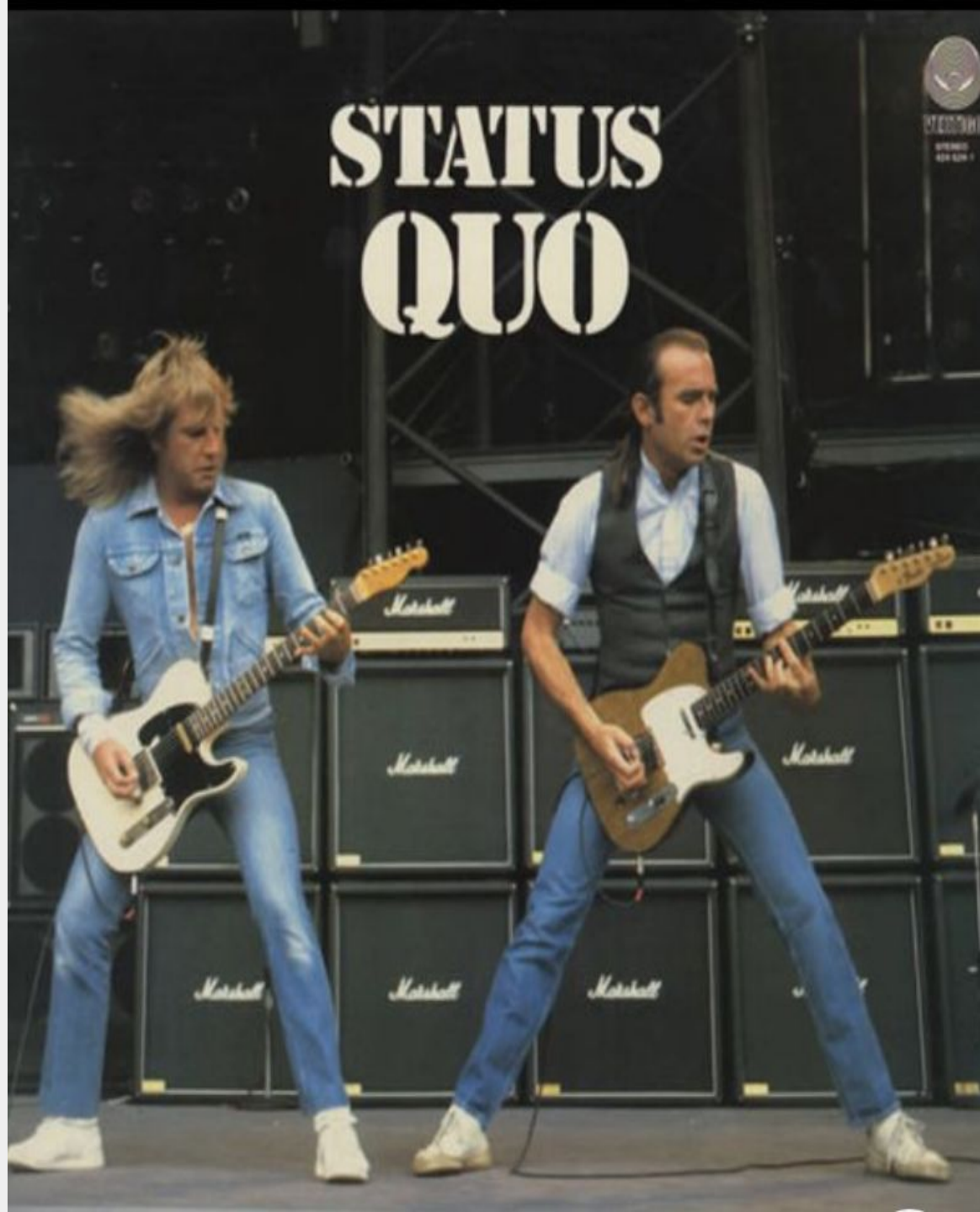
BEHAVIOURAL?

STATUS QUO



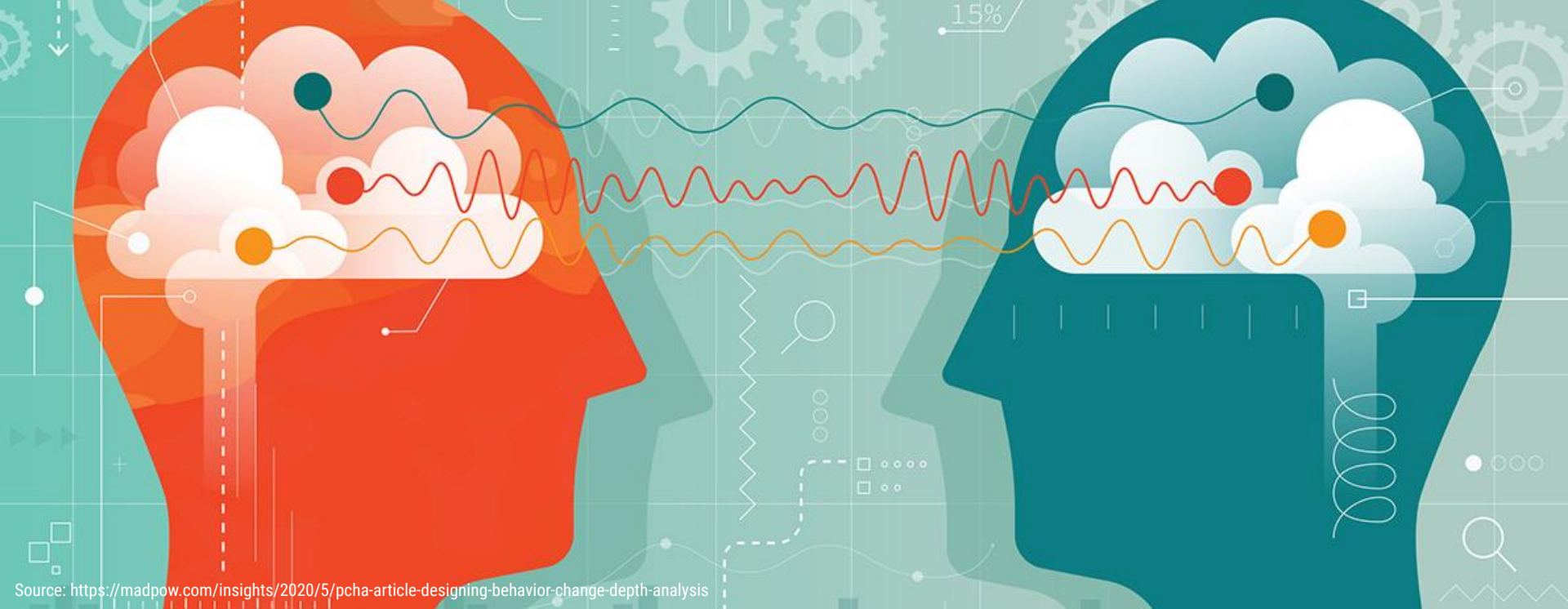
PASSIVITY?

**NO REAL
BEHAVIOURAL
CHANGE!**



3. TRANSITION STREETS MOVEMENT





Source: <https://madpow.com/insights/2020/5/pcha-article-designing-behavior-change-depth-analysis>

A MODEL OF URBAN TRANSFORMATION

BEHAVIOURAL CHANGE

But, LIMITATIONS in reach and scope

4. PSYCHO-SOCIAL SUSTAINABILITY

John Ehrenfeld (2008):

*"A possibility that life of various species on earth will **flourish** forever".*

➡ A transformation in human behavior, both on the **individual** and **collective** levels, and an adoption of a mind-set focused on "**being**" rather than "**having**".

Di Fabio (2016):

Promotion of **human well-being** and **individual** and **collective** growth.



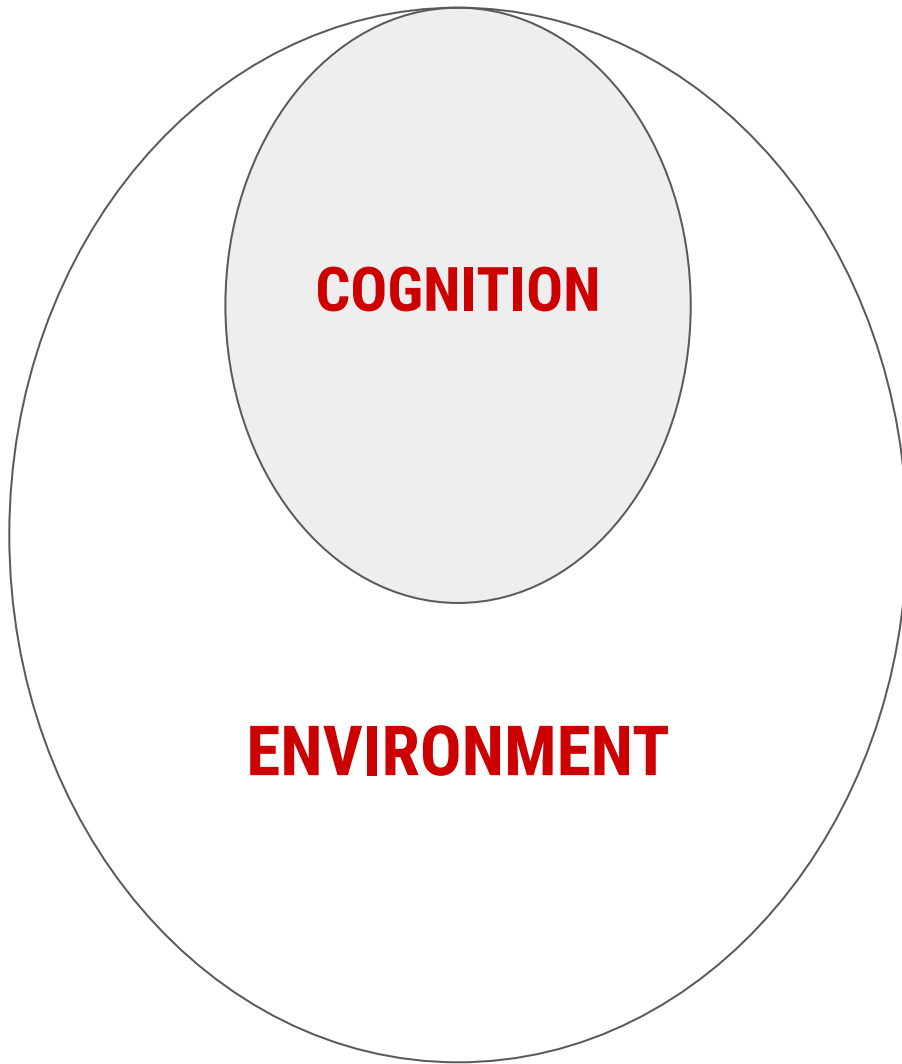
Source:
<https://www.pescholar.com/insight/physical-literacy-and-flourishing/>

5. NEW APPROACHES



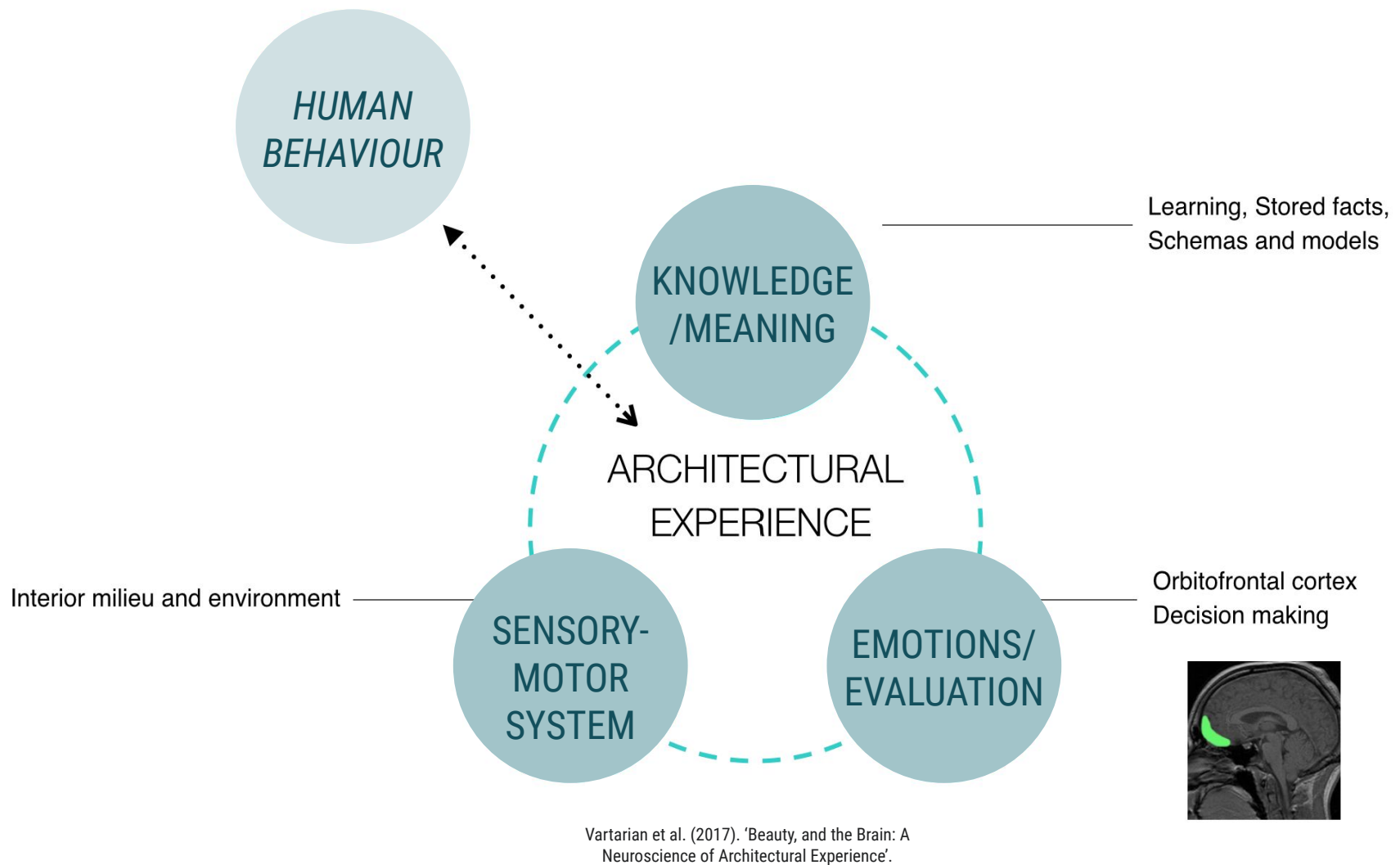
Source: <https://dipng.com>

(URBAN) DESIGN + NEUROSCIENCE (NS) / BEHAVIOURAL SCIENCES (BS)



**Situated
Cognition**

ENACTIVISM



HUMAN/ENVIRONMENT INTERACTION

COLIN ELLARD: “How Urban Design makes us HAPPY”!



“...what is perhaps the most important to get right in a city is the constellation of elements that promote positive emotion”

Colin Ellard, BSc, PhD
(neuroscience), Neuroscience Prof.
at the University of Waterloo



EVE EDELSTEIN: Human response to the Environment

STAIR USE INCREASES 4X THROUGH INCLUSION OF DAYLIGHT AND VIEWS



STAIR USE INCREASES 6X THROUGH INCLUSION OF DAYLIGHT AND VIEWS WITH A SOCIAL REWARD.



PERKINS+WILL



"Neuroscience tells us how the human response to the environment is derived..."

Eve Edelstein, M.Arch., Ph.D.
(neuroscience), Director of Human
Experience Lab at Perkins+Will



Source: xxxxxx

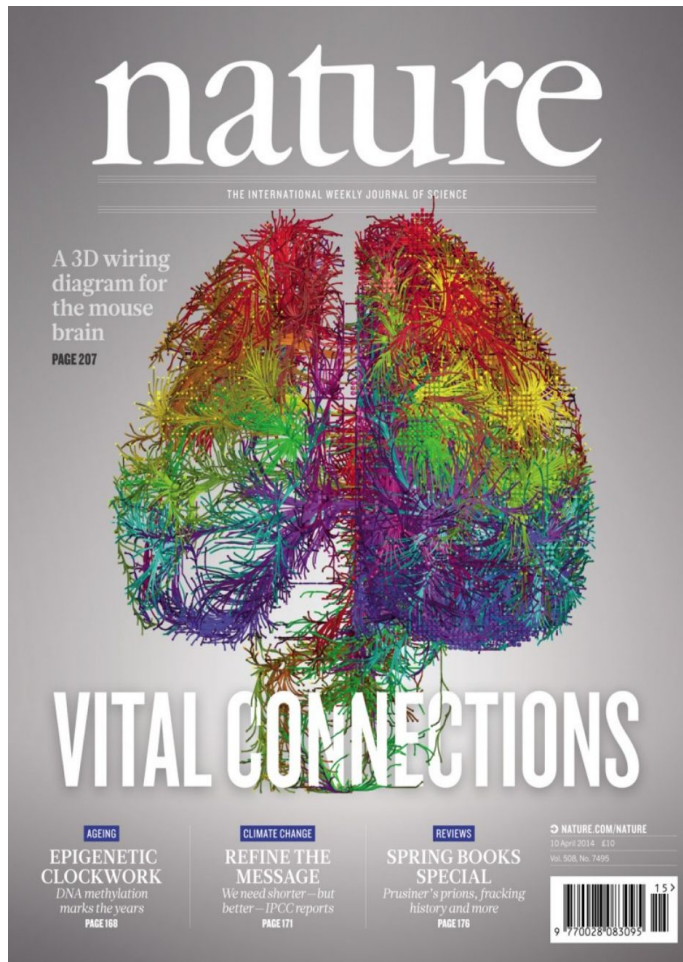


Source:Pinar Istek / Calit2 from: <http://www.nbcnews.com>

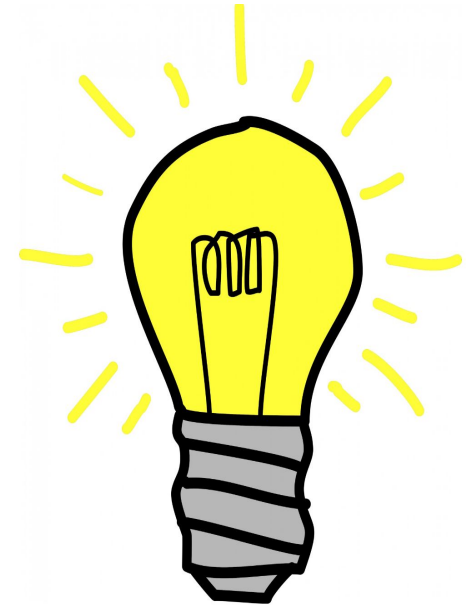
**BASIC & APPLIED
RESEARCH**

EVIDENCE

DESIGN + NS/BS

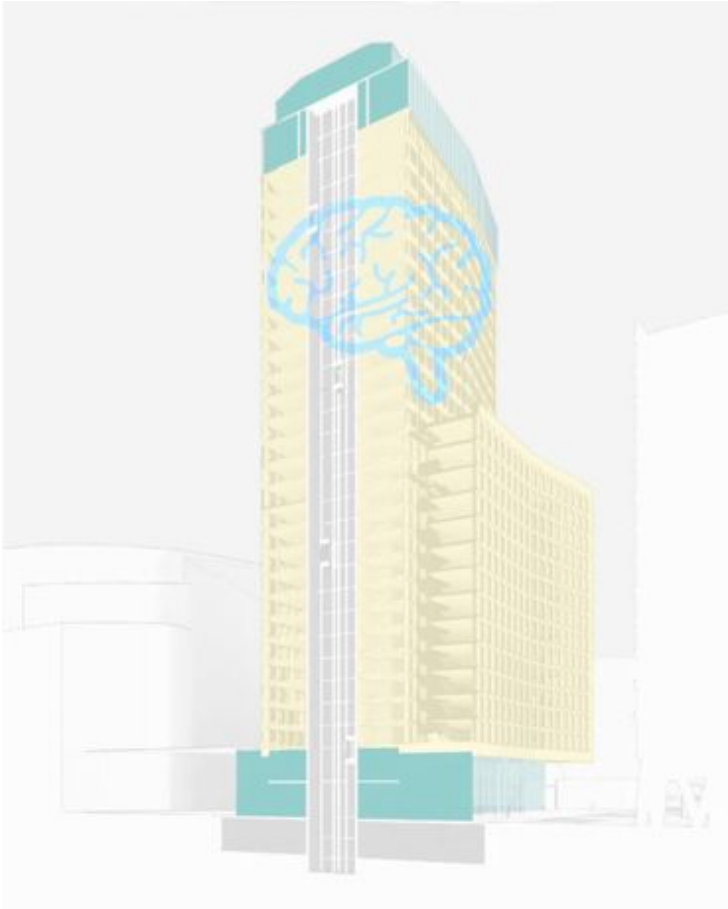


**TRANSLATIONAL
RESEARCH**



DESIGN + NS/BS

HOW TO TRANSLATE INSIGHTS INTO DESIGN?





Club Houses

Club houses are meeting spaces for tenants that can be used for social gatherings based on interest groups. Clubs can be organised by any tenant and activities should be publicised to other PH users to join and make new social connections.



Human Metrics

Social Engagement
Sense of Belonging
Inclusion
Pro-social Behaviour



Spatial Metrics

Visibility of activity schedule
Level of seclusion
Acoustic isolation



Restoration Spot

A retreat for tenants to have coffee, lunch, or just Niksen (doing nothing and letting your mind wander). It is situated by the path of passers by in order to invite them to engage and rest, creating a positive association with PH.



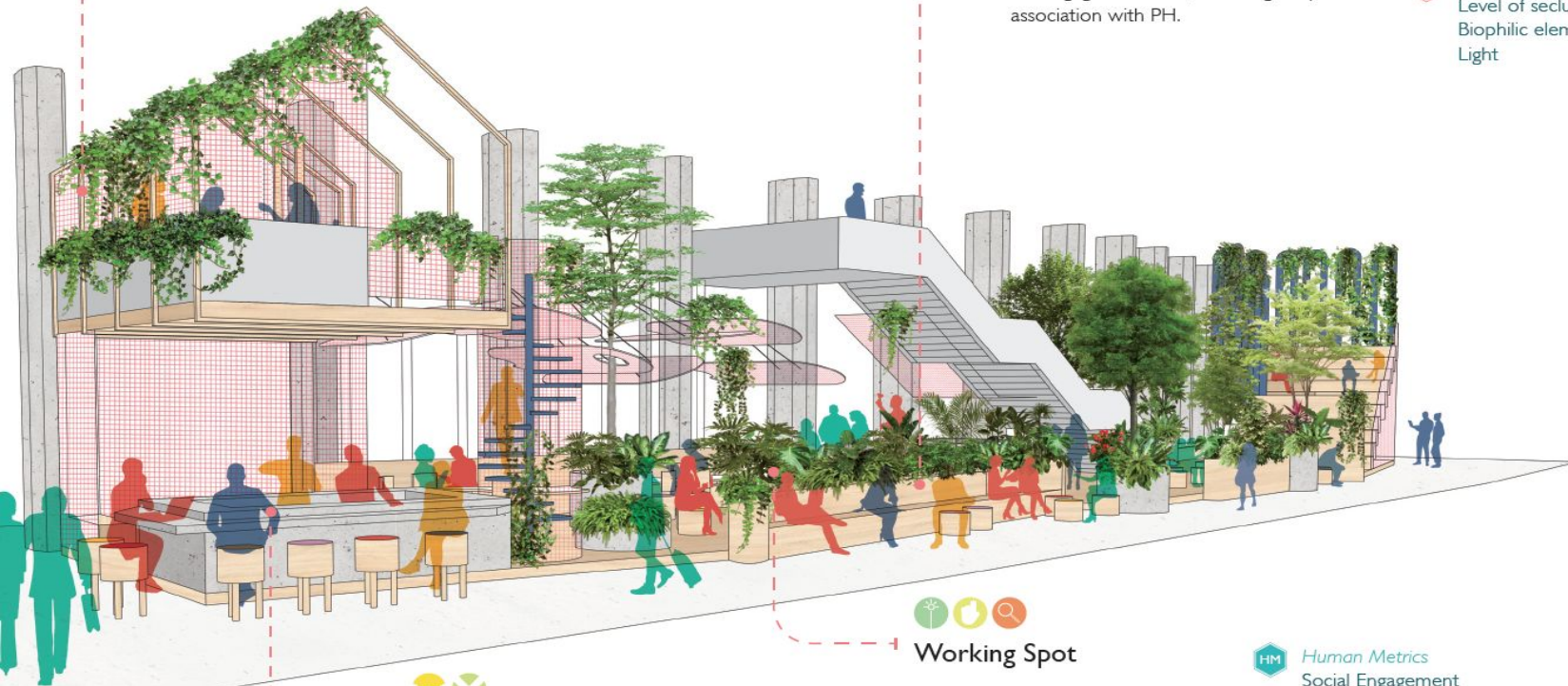
Human Metrics

Environmental Restorativeness
Sense of Place
Dwell
Return



Spatial Metrics

Level of seclusion
Biophilic elements
Light



Amenity (Cafe)

Bringing in an independent and small business can contribute to community building and sense of belonging by making it more likely for users to regularly interact with familiar faces.



Working Spot

Offering different working conditions to tenants and visitors gives users a sense of the space being conducive to varying forms of productivity and creativity. Working spots, if curated properly can be a driver for community building and collaboration.



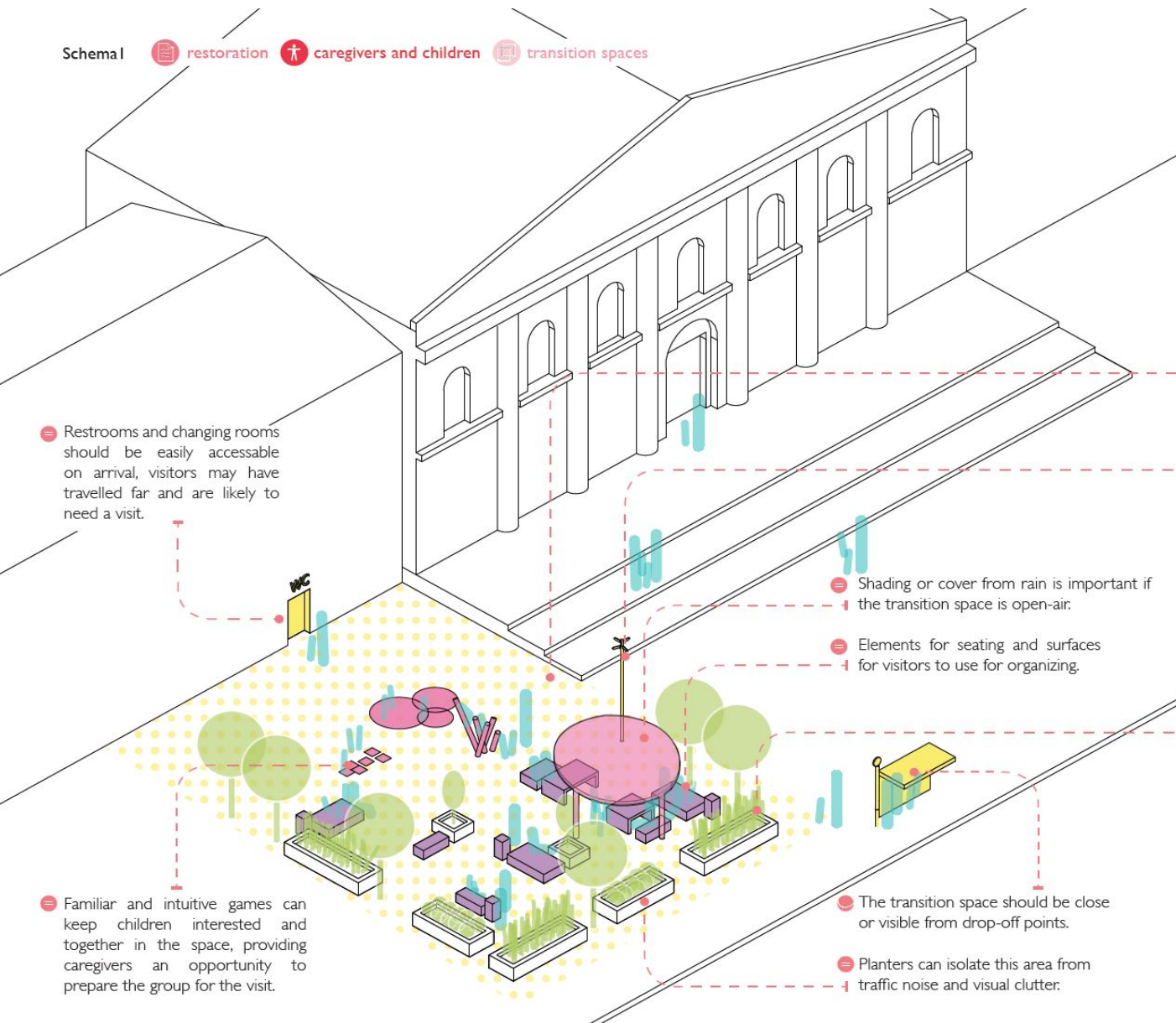
Human Metrics

Social Engagement
Sense of Belonging
Divergent Thinking



Spatial Metrics

Acoustic and visual privacy
Seating arrangement
Materiality
Light



Focus on Safety and Restoration

This is a space placed between the entrance and the point of arrival (transit stop, car park, or street). It creates the conditions to go from frustration, stress and over stimulation to restoration in order to begin the visit in desirable mindset.

- The pre-arrival area should provide a sense of safety by ensuring the space has a clear layout and is easy to oversee for parents without too many tall visual obstructions.
- A point of information for orientation that is easily identified will draw arriving visitors to it, helping them to feel more at ease with an unfamiliar environment.
- The environment should not be overstimulating, without major distractions, providing a sense of calm, and restoration. Through simplicity and clarity the pre-arrival area becomes a space for relaxation and gathering one's thoughts before engaging with the experience in the entrance area.
- The area should make it easy for visitors to organise themselves. Parents and caregivers often need to rearrange items, go through lists or make a head count.
- This is an 'in-between' area. It should not be an enclosed space within four walls, but rather an open space providing an overview over the area.

- Restrooms and changing rooms should be easily accessible on arrival, visitors may have travelled far and are likely to need a visit.
- Familiar and intuitive games can keep children interested and together in the space, providing caregivers an opportunity to prepare the group for the visit.

- Shading or cover from rain is important if the transition space is open-air.
- Elements for seating and surfaces for visitors to use for organizing.
- The transition space should be close or visible from drop-off points.
- Planters can isolate this area from traffic noise and visual clutter.

凡唐人看此書者
 必自書尾起讀各
 字右邊有母來由
 及英吉利兩話其
 一以直字其
 邪字記着欲知其
 音者必問彼國之
 先生方明白矣

BARANG siapa antara orang Malayu yang mau batja surat ini, harus batja deri atas kabawah; maka pada sablah kiri deri saswatu perkataan boleh didapatnia bahasa China, dan dibawahnia boleh dapat bahasa Inggris, tertulis dengan huruf serong. Adapun djikalau mau tahu bunyinia perkataan itu, harus ditania kapada guru guru deri kadua negri itu.

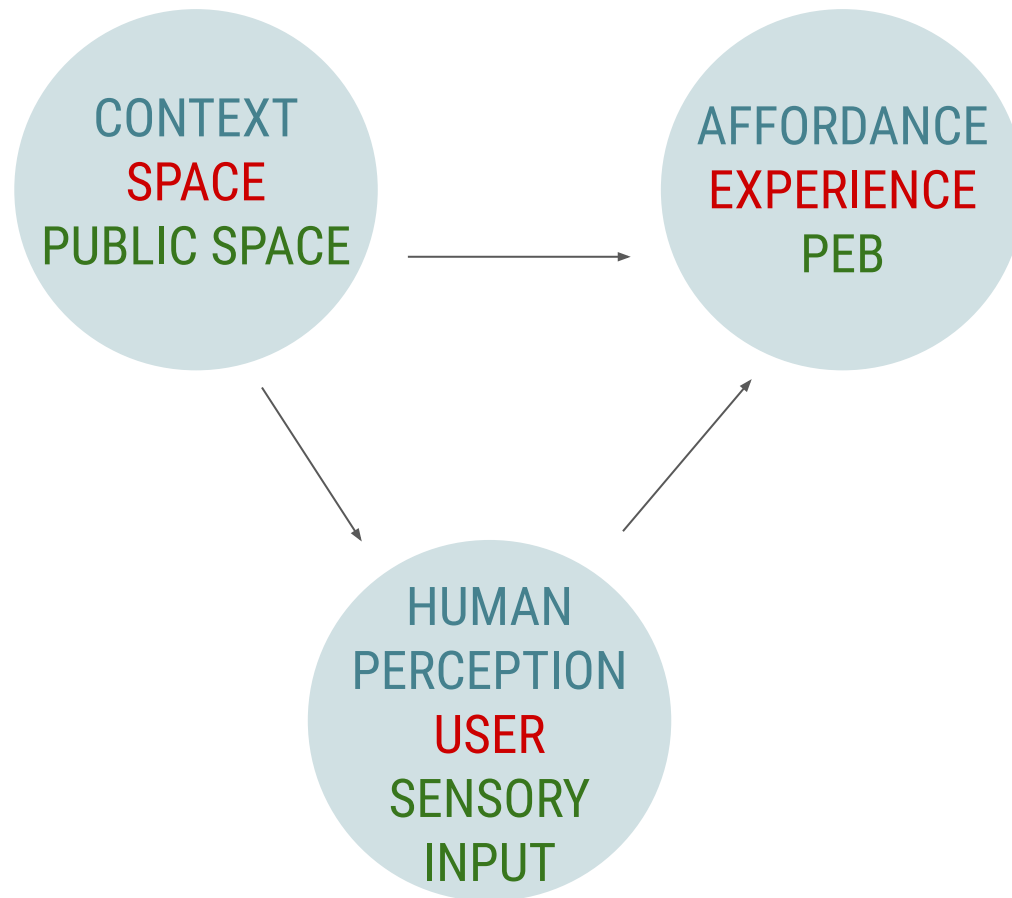
Should an Englishman wish to make use of this book, he must read from the top to the bottom of each column: above the English words he will find the corresponding Malay word in Roman, and the Chinese, on the left hand, written in their character. If he wishes to know the pronunciation of these, he must apply to a Chinese teacher.

LACK OF UNIVERSAL LANGUAGE!

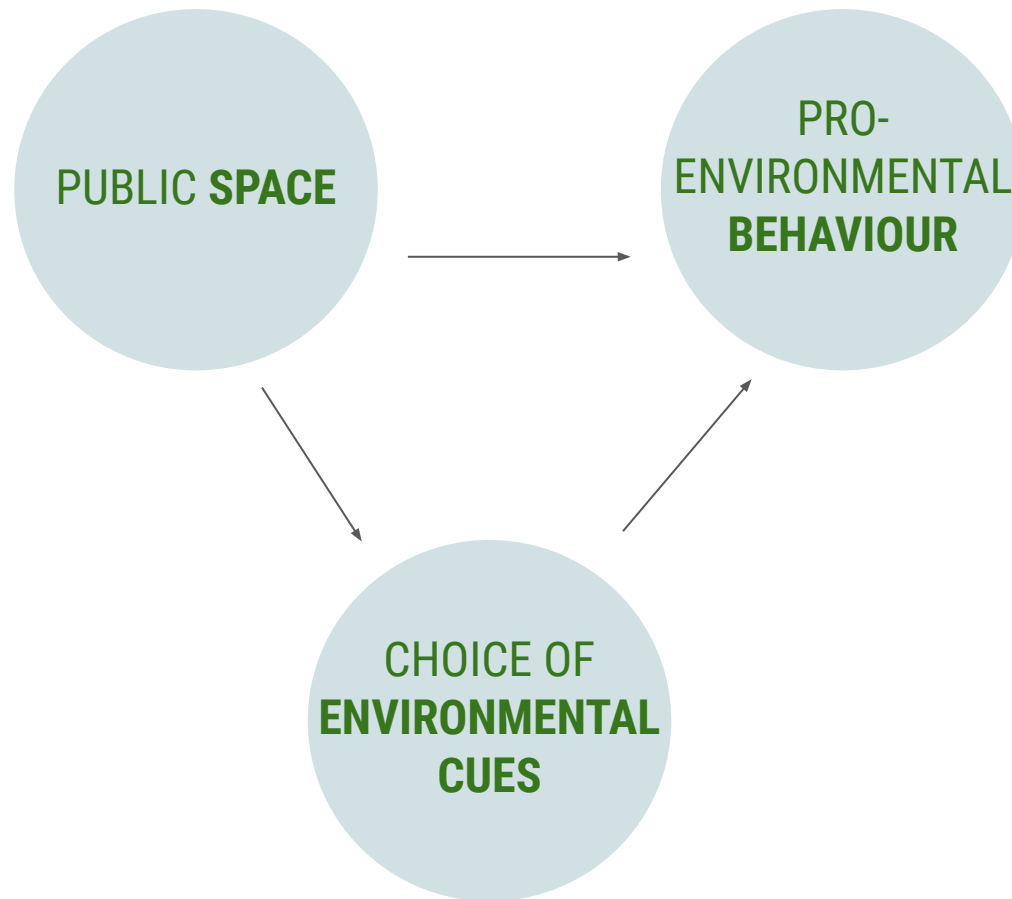
Affordance is what the environment offers the individual.

Affordance as Lingua Franca?

6. OUR APPROACH



*What does a user need to **perceive** to act pro-environmentally
and **how** does a user need to **feel** to act pro-environmentally?*



a. CONNECTEDNESS TO NATURE



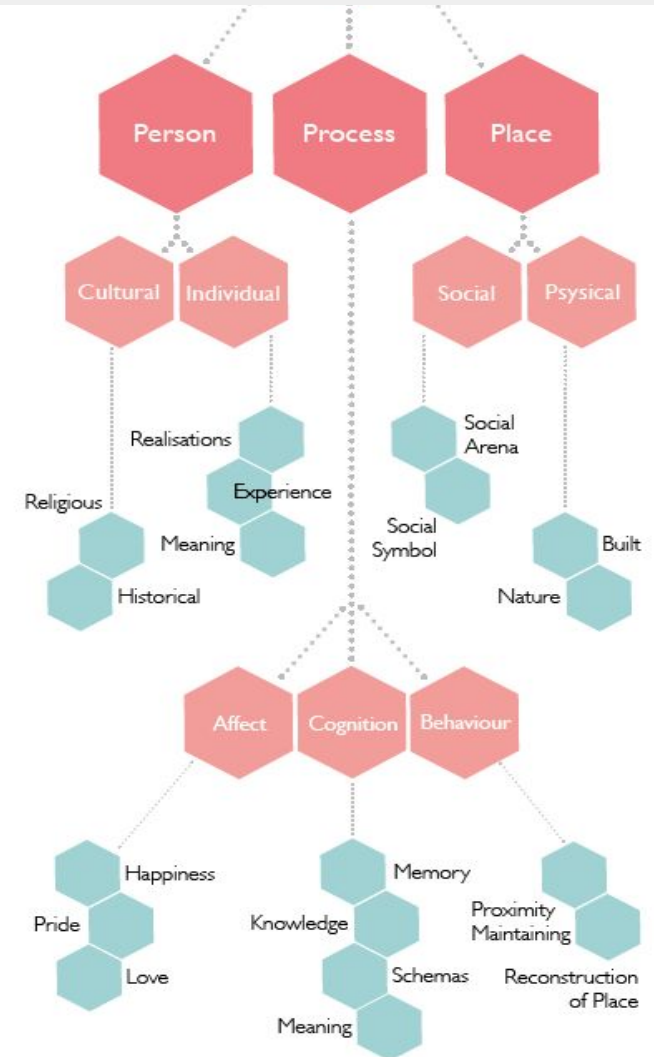
b. SENSE OF BELONGING



c. SENSE OF PLACE

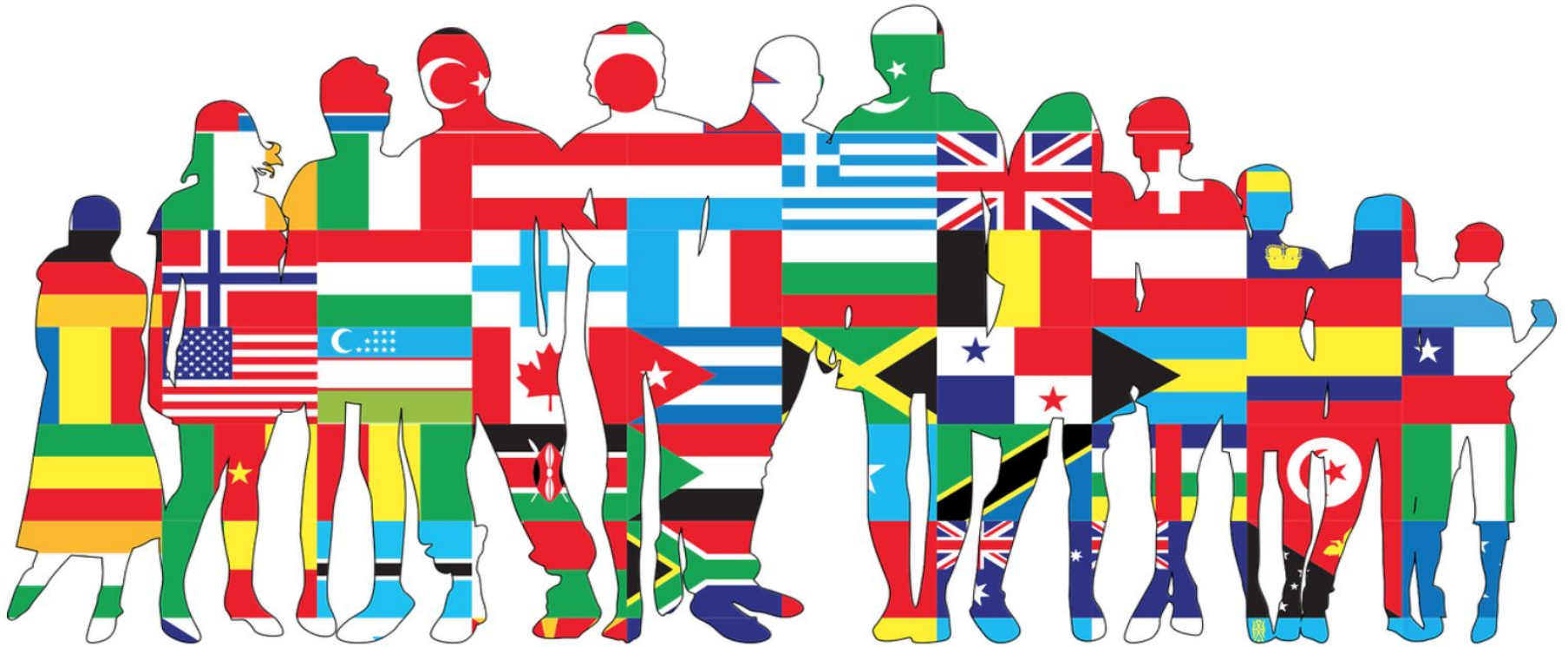


d. PLACE ATTACHMENT



Source;
Scannell & Gifford. (2010). 'Defining place attachment: A tripartite organizing framework'. Journal of Environmental Psychology

e. CULTURAL CONDITIONS



Source:

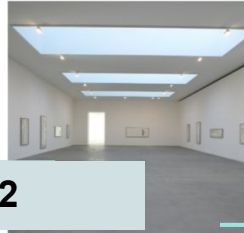
<https://www.instituteforphysicianwellness.com/wellness-within-the-culture-of-medicine/>

GOAL: SHIFT ARCHITECTURAL METRICS TO HUMAN EXPERIENCE

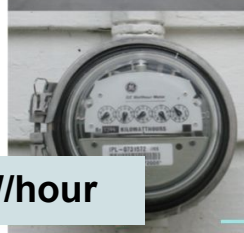
Science
Can shift
Design
From Efficient to Effective



\$/ft²



KW/hour



\$/month



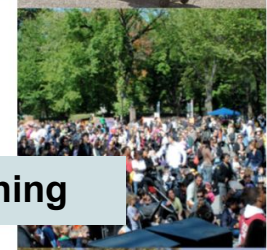
green/m²



cognition



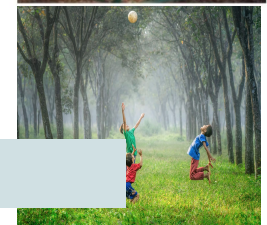
learning

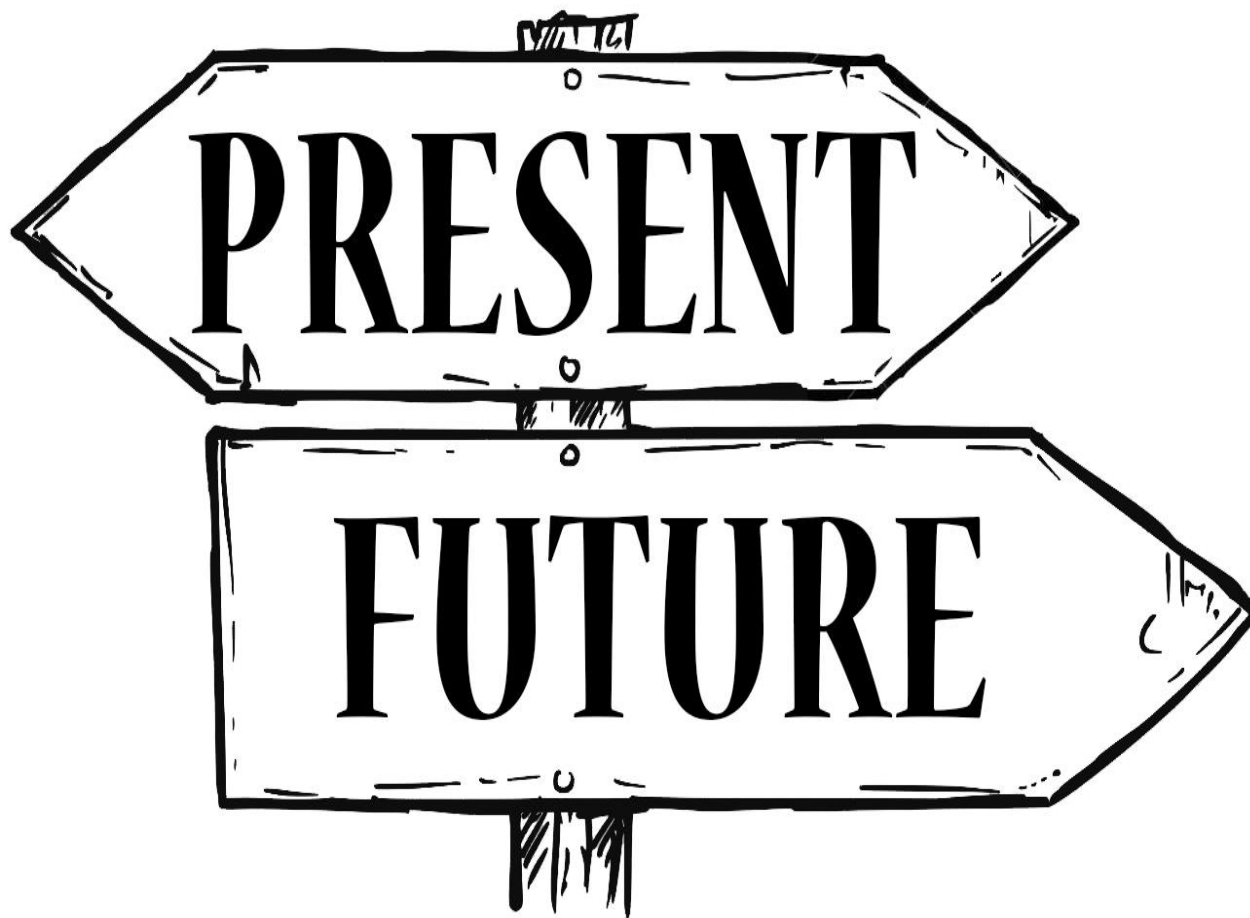


wellbeing



PEB





**SCIENCE-INFORMED
DESIGN**

**NS/BS
PRINCIPLES
FOR DESIGN**

THANK YOU!

NOUR TAWIL

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