

Buildings as Medicine: How Better Design Removes Environmental Stressors



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What is the space/health axis?

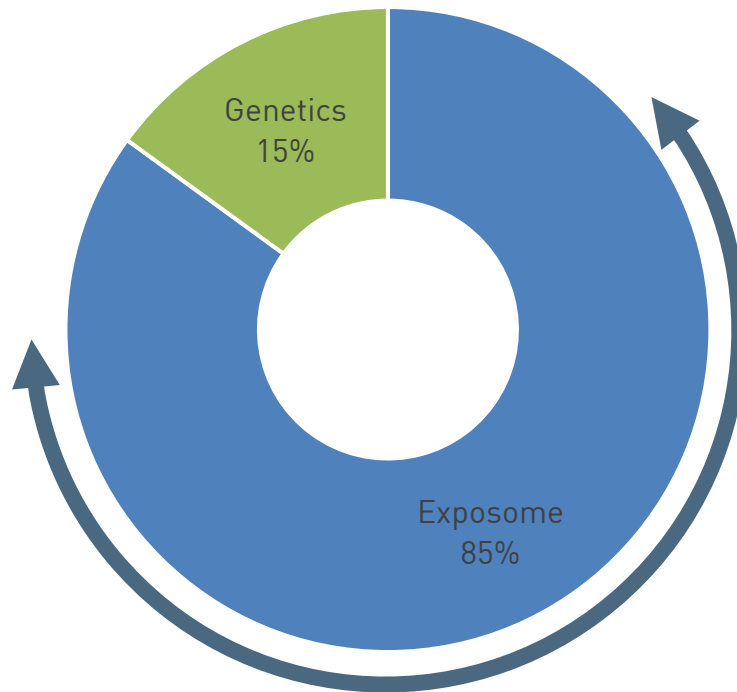
What makes a space healthy or sick?

What interventions can we make?

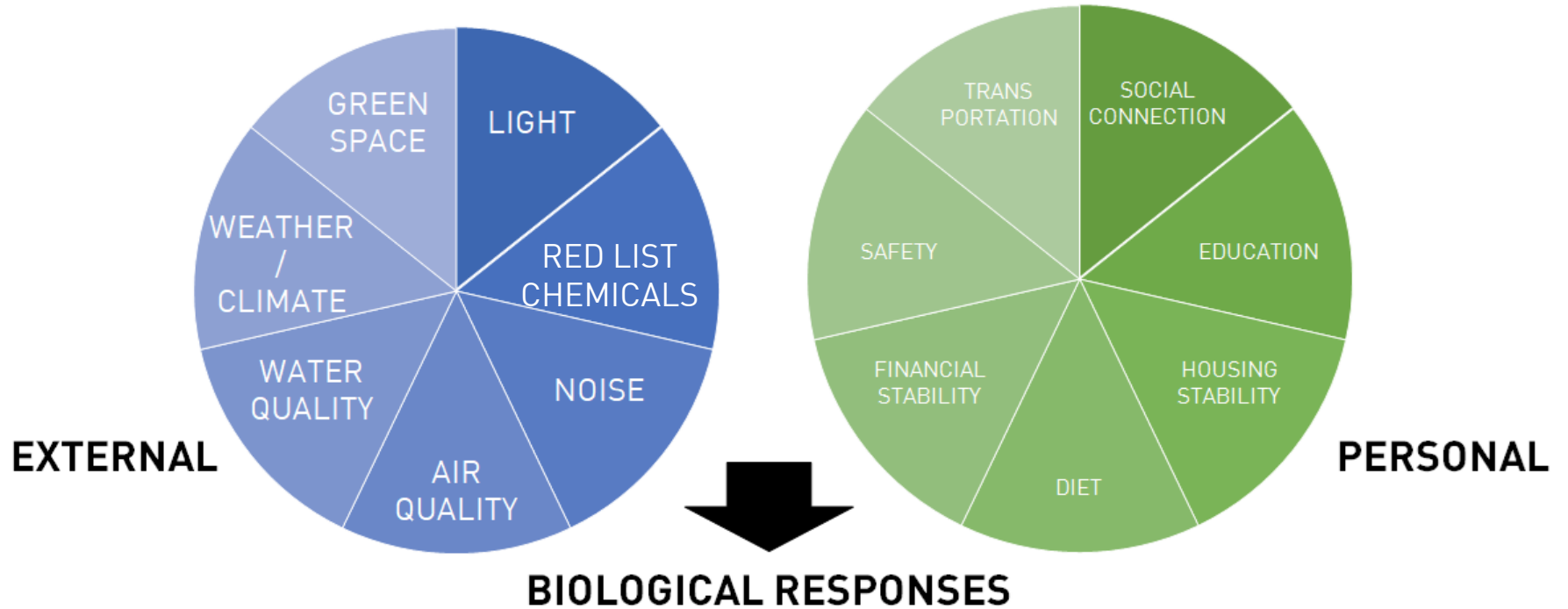
EXPOSOME VS. GENOME

COMPONENTS OF WELL BEING

IMPACT OF DIFFERENT FACTORS ON RISK OF DISEASE



THE EXPOSOME



AGING

EPIGENETICS

INFLAMMATION

METABOLICS

GUT
MICROBIOME

FERTILITY

TOP 10 SOURCES OF TOXICITY

AIR POLLUTION

cleaning products
materials and finishes containing:
ARSENIC, ASBESTOS red-list chemicals etc.

UNSAFE WATER / POLLUTION PESTICIDES

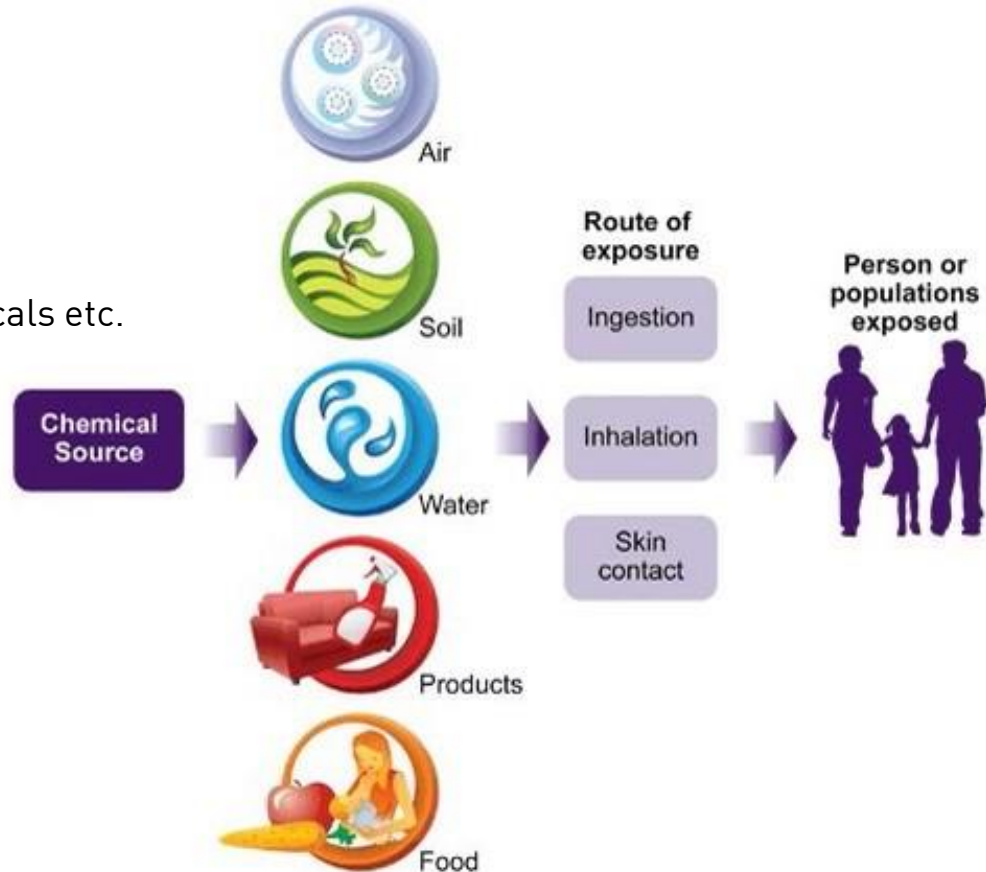
in food air and water

NOISE POLLUTION

building acoustics
room acoustics
motorized transit

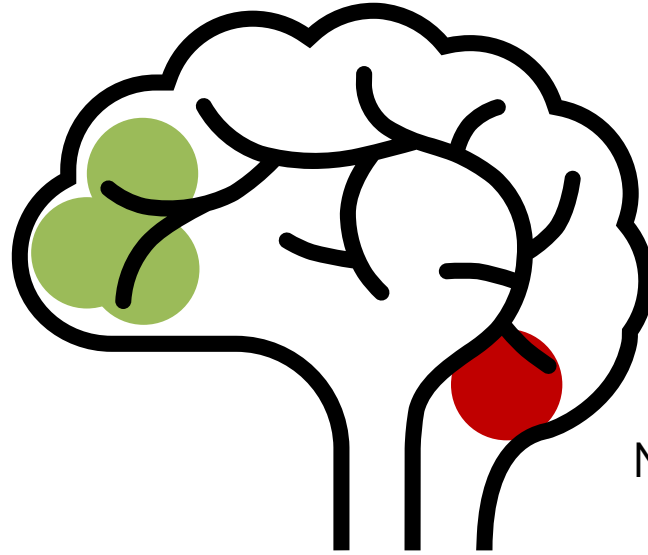
LIGHT POLLUTION

outdoor light fixtures
leaky lighting
blue-green light from digital devices



STRESS AND WELL BEING

PREFRONTAL
CORTEX
EXECUTIVE
FUNCTION



AMYGDALA
SYMPATHETIC
NERVOUS SYSTEM
HPA AXIS



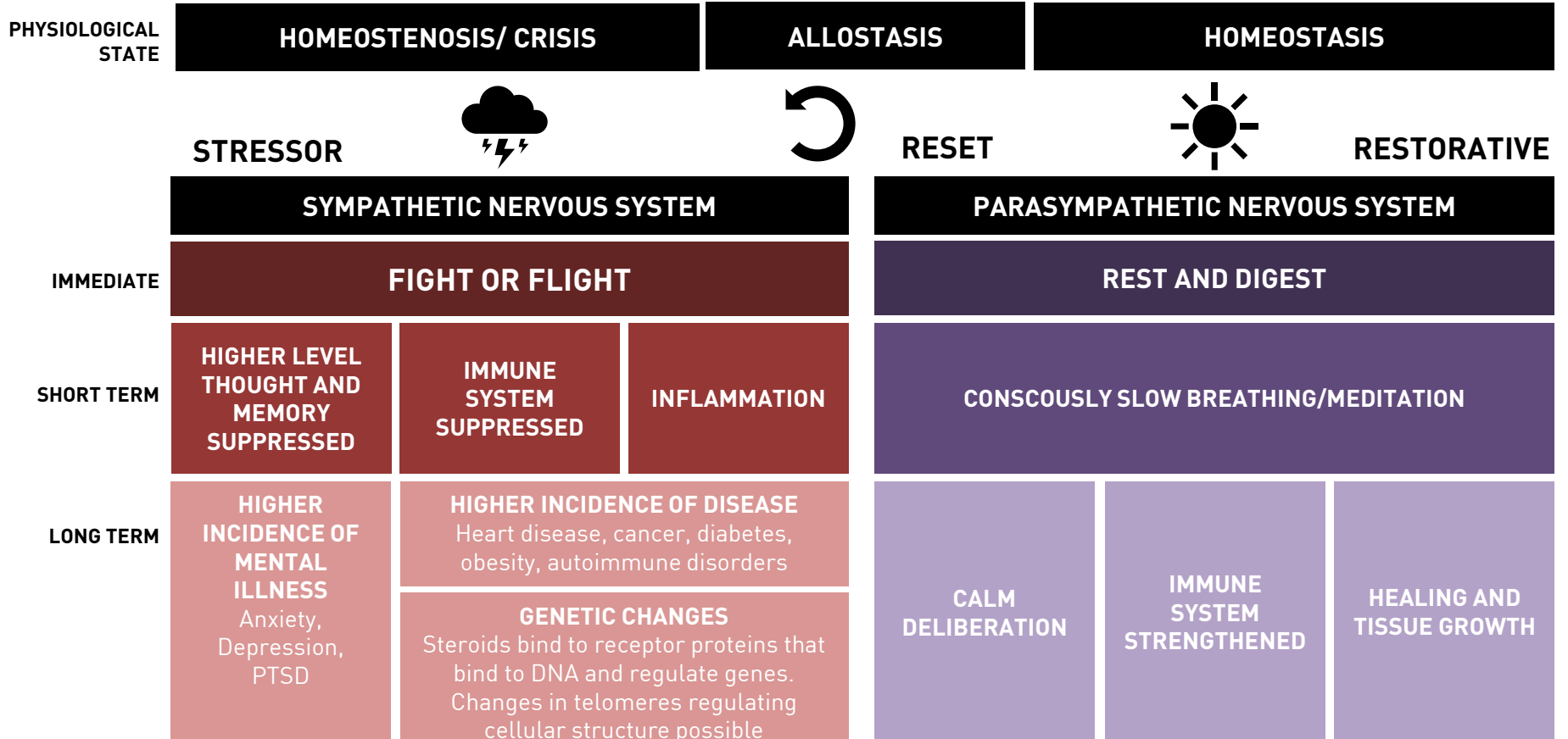
STRESS AND WELL BEING



AMYGDALA
HIJACK



AUTONOMIC NERVOUS SYSTEM AND STRESS



DIAGNOSING SPACE

RESOURCING INDIVIDUALS



RESOURCE BANK

THREATS

RESOURCES TO COLLECT

BUILDING OUR HEALTHSPAN

Make it easy to make good lifestyle choices

REDUCE
STRESS AND
INFLAMMATION

10-MINS REST
2X DAILY

EPINUTRIENT
RICH FOODS

DAILY
MOVEMENT
30 MINUTES

HYDRATION -
CLEAN WATER

REGULAR
SLEEP 7-9
HOURS





Vantage points allow patients to survey the setting before setting off to the next destination



Nature integrated into building



All destinations accessed directly from atrium for intuitive wayfinding



Continuous walkway provides opportunity for pacing



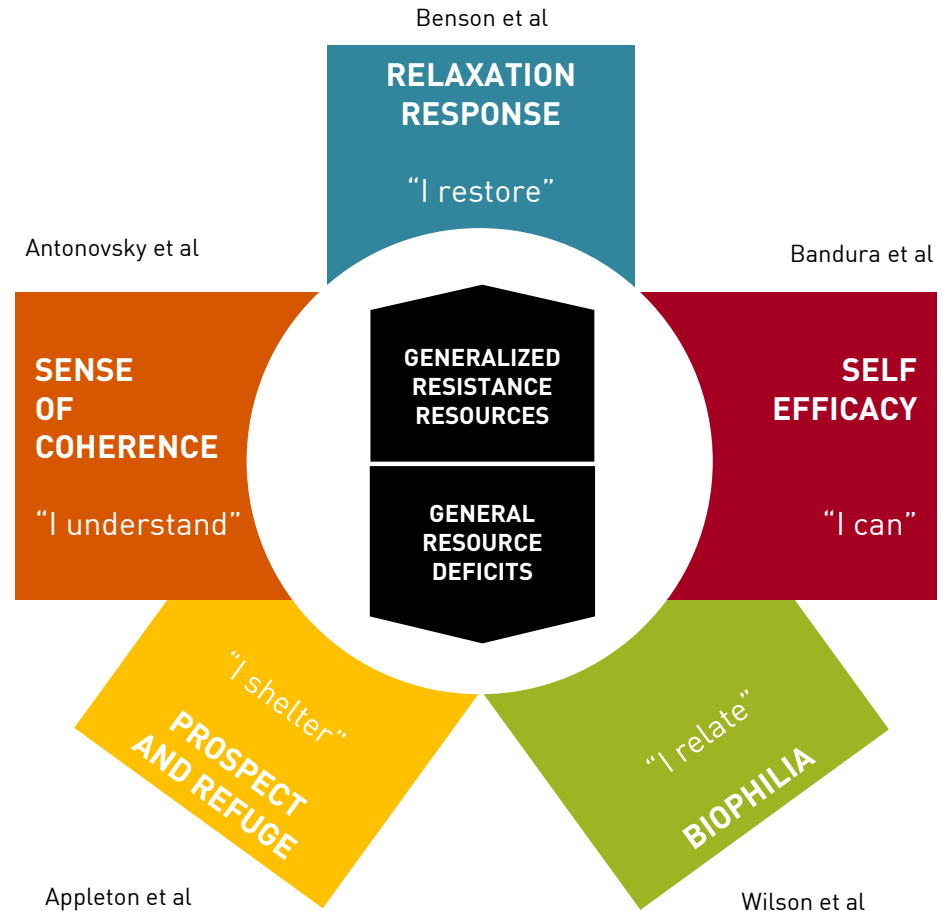
Unique attributes at each portal facilitates cognitive mapping



MEANINGFUL INTERVENTIONS

A SALUTOGENIC APPROACH

Focus on alleviating stress and building resiliency by providing an abundance of environmental resources



DELIBERATELY NON-TOXIC

Make health-enhancing
design choices

- 
- **CLEAN TECHNOLOGY**
 - **NOISE MITIGATION**
 - **CIRCADIAN LIGHTING**
 - **NATURAL MATERIALS**
 - **GOOD INDOOR AIR QUALITY**
 - **GOOD WATER QUALITY**

ACTIVE DESIGN

Provides opportunities to engage at multiple levels as part of normal routines

HEALTH

PHYSICAL

MENTAL

SOCIAL



DYNAMIC MIDSCAPES

Pedestrian friendly

Active Design

Access to Nature

Safety

Access to Civic Life



CITY AS BLUE ZONE

Air Pollution vs. Clean Air Quality

Conscious Noise Pollution
Measures

Conscious Light Pollution Measures

Safe Drinking water and healthy
food sources

Dynamic midscapes and urban
interventions

BLUE URBANISM

Clean Air

Access to
Nature,
Quiet,
Dark Sky

Safe
Water &
Healthy
Food

Broad
Social
Networks,
Active
Design

THANK
YOU

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CLUB

ARCHITECTING



ROOM

Architects as Healers: Buildings as Medicine

From ARCHITECTING 🏠



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