SESSION 1: SCIENTIFIC INTRODUCTION OF THE CONGRESS



Milano, Italy 11-14 April 2024 Design & Health



POLITECNICO MILANO 1863

> DIPARTIMENTO DI ARCHITETTURA, INGEGNERIA DELLE COSTRUZIONI E AMBIENTE COSTRUITO

13TH WORLD CONGRESS & EXHIBITION REVITALIZING HEALTH BY SALUTOGENIC DESIGN Healthy environment | Healthy people

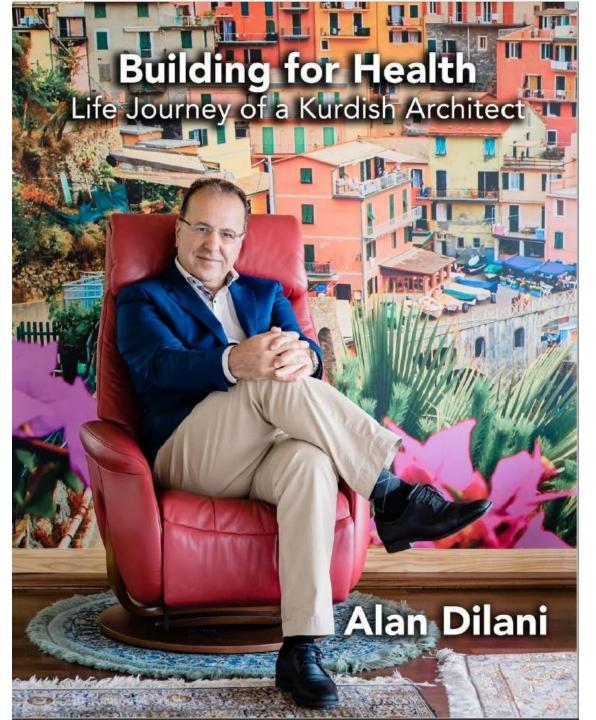
The Science of the Salutogenesis, Theory and Application Prof. Alan Dilani, PhD. Architect / Public Health

Gerflor affiliation









International Academy Awards





DIPARTIMENTO DI ARCHITETTURA, INGEGNERIA DELLE COSTRUZIONI E AMBIENTE COSTRUITO



Vision and Mission "Healthy Environment – Healthy People"

To promote health and well-being through Salutogenic Design, we aim to create physical environments that actively support health promotion, fostering healthy society.

Design & Health Global Events Map



World Congresses

- 1st Trondheim 1997
- 2nd Stockholm 2000
- 3rd Montreal 2003
- 4th Frankfurt 2005
- 5th Glasgow 2007
- 6th Singapore 2009
- 7th Boston 2011
- 8th Kuala Lumpur 2012
- 9th Brisbane 2013
- 10th Toronto 2014
- 11th Hong Kong 2015
- 12th Vienna 2017
- 13th Milano 2024

• 14th ???????????

International Symposiums

- Sydney 2010
- Toronto 2010
- Brussels 2010
- Melbourne 2011
- Cape Town 2011
- Helsinki 2012
- Singapore 2013
- Beijing 2014
- Brazil 2018
- Milan 2019

Chapter Events

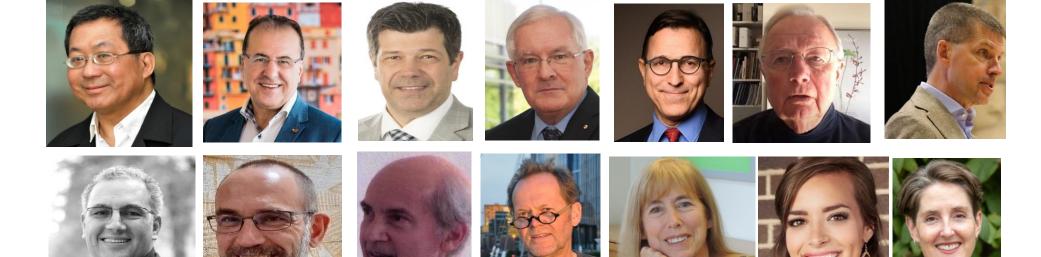
- Chile 2018
- Dallas 2018
- Melbourne 2018
- Upcoming Shenzen 2019
- Upcoming Brazil 2019
- Upcoming Brisbane 2019
- Upcoming Singapore 2020



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Milano, Italy 11-14 April 2024 Design & Health

13TH WORLD CONGRESS & EXHIBITION























25 leading scientists and practitioners



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Ecological and Salutogenic Design

The world is currently witnessing an exceptional speed of scientific and technological discoveries.

These discoveries have the potential to <u>reshape</u> our perception of ourselves as humans, redefine our societal interactions, and transform <u>our approach</u> to how we care for our environment.

ECOLOGICAL AND SALUTOGENIC DESIGN FOR A SUSTAINABLE HEALTHY GLOBAL SOCIETY

EDITED BY KEN YEANG AND ALAN DILANI

In light of the rapid technological development and the unresolved challenges of our future,

Academy is committed to fostering meaningful dialogue among the academia, private industries and governments with the aim to collectively envision a future towards establishing a Salutogenic Healthy society.





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World Health Organization

Global action plan

"To reduce modifiable risk factors for NCDs and underlying social determinants through creation of health-promoting environments." (World Health Organization, 2013)





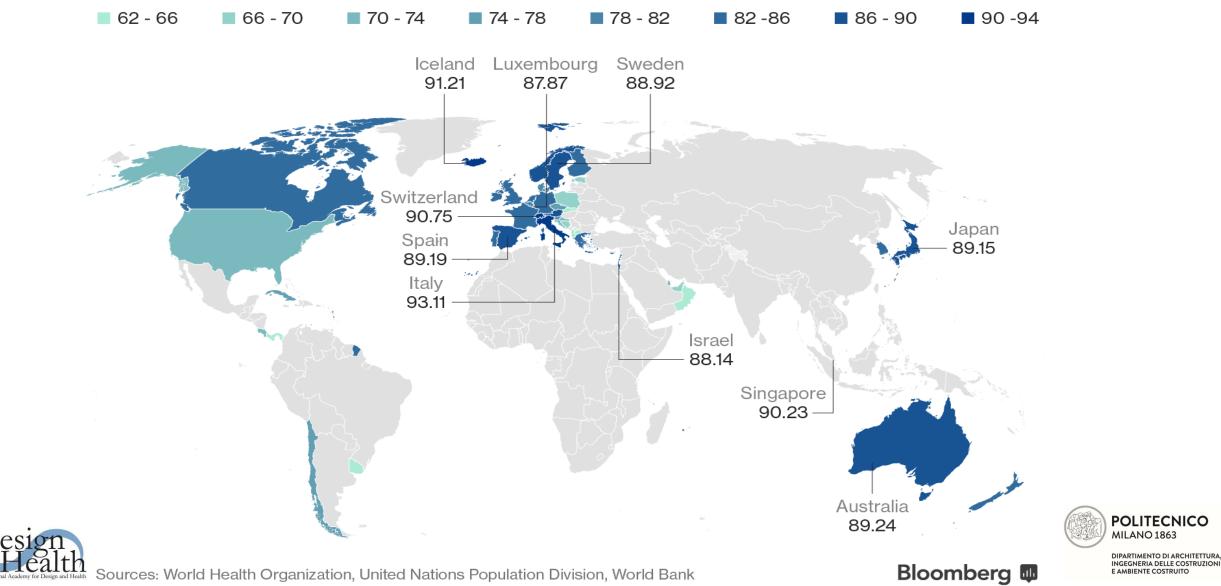
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Welcome to the Science Salutogenesis and Salutogenic Design

Fifty Healthiest Countries

- Singapore and Cyprus are the only non-OECD countries to rank in top 20
- Israel is the highest ranked country in the Middle East, Chile in Latin America and Slovenia in Eastern Europe

Health index score



Rank	Country	Health grade	Health score	Health risk penalties	Rank	Country	Health grade	Health score	Health risk penalties
1	Italy	93.11	97.44	-4.33	26	Belgium	80.96	86.03	-5.07
2	Iceland	91.21	96.20	-4.99	27	Slovenia	80.81	86.65	-5.83
3	Switzerland	90.75	94.96	-4.21	28	Denmark	80.36	85.02	-4.66
4	Singapore	90.23	94.11	-3.88	29	Chile	77.18	82.53	-5.35
5	Australia	89.24	93.88	-4.64	30	Czech Rep.	75.76	81.82	-6.06
6	Spain	89.19	94.14	-4.95	31	Cuba	74.23	79.13	-4.90
7	Japan	89.15	93.69	-4.54	32	Lebanon	74.03	79.55	-5.51
8	Sweden	88.92	93.78	-4.85	33	Costa Rica	73.14	77.16	-4.01
9	Israel	88.14	92.47	-4.33	34	U.S.	73.05	78.25	-5.21
10	Luxembourg	87.87	92.90	-5.03	35	Croatia	72.88	78.16	-5.28
11	Norway	86.81	91.61	-4.81	36	Qatar	71.78	77.33	-5.55
12	Austria	86.34	90.78	-4.44	37	Brunei	70.21	75.14	-4.92
13	Netherlands	85.83	89.94	-4.11	38	Estonia	69.24	75.67	-6.43
14	France	85.59	90.93	-5.34	39	Poland	68.92	75.34	-6.42
15	Finland	84.80	89.58	-4.78	40	Bahrain	68.73	74.20	-5.46
16	Germany	84.78	89.40	-4.62	41	Maldives	67.90	71.82	-3.92
17	Canada	84.57	89.53	-4.96	42	Bosnia & H.	67.83	72.91	-5.08
18	Cyprus	84.52	89.17	-4.65	43	U.A.E.	67.30	73.56	-6.26
19	New Zealand	84.48	89.95	-5.47	44	Macedonia	65.64	69.96	-4.32
20	Greece	84.28	88.17	-3.89	45	Uruguay	65.40	70.86	-5.45
21	Portugal	82.97	88.24	-5.27	46	Slovakia	65.10	70.54	-5.44
22	Ireland	82.52	88.53	-6.01	47	Barbados	64.14	68.55	-4.41
23	U.K.	82.28	87.21	-4.94	48	Oman	62.89	67.79	-4.90
24	S. Korea	82.06	87.67	-5.61	49	Panama	62.39	67.13	-4.73
25	Malta	81.27	86.42	-5.15	50	Albania	62.01	66.72	-4.71

Bloomberg 2017 Healthiest Country Index

Sources: World Health Organization, United Nations Population Division, World Bank

Note: Health grade (X) = Health score (A) - Health risk penalties (B)

A: Health score metrics: 1. mortality by communicable, non-communicable diseases and injuries; 2. life expectancy at the defining age of birth, childhood, youth and retirement; 3. probability to survive neonatal, into young adulthood and retirement stages; B: Health risk penalties: 1. behavioral/endogenous factors such as high incidences of population with elevated level of blood pressure, blood glucose and cholesterol, prevalence of overweight, tobacco use, alcohol consumption, physical inactivity and childhood malnutrition, as well as mental health and basic vaccination coverage; 2. environmental/exogenous factors such as greenhouse gas emissions per capita and percentage of population with access to improved drinking water.



Most recent data used. Of the more than 200 countries and regions evaluated, 163 had enough data to be included in the final outcome; The top 50 are displayed.



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Bloomberg 💵



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Italy's Struggling Economy Has World's Healthiest

People

Important Information





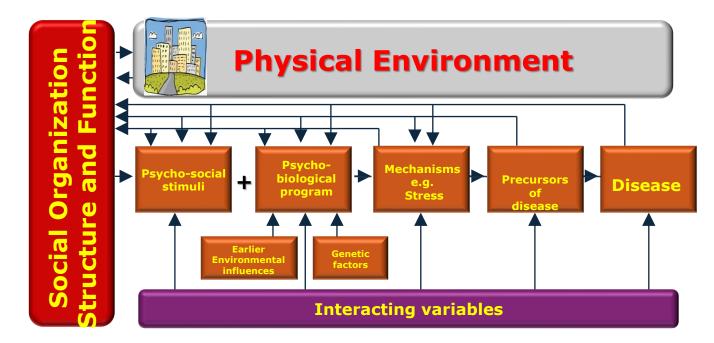


Photographer: Wolfgang Kaehler/LightRocket via Getty Images

Process of Disease LIFE **Psychosocial Factors** Health 📐 Katabolic Anabolic **Emotions Emotions Biological** Life-style 🔫 \rightarrow Life-style ←► & Experience **Factors** & Experience Illness 1111 m **Psychosocial** DEATH **Factors Process of Health** Sickness <<<<< Factors</p> Factors >>>> Health POLITECNICO **MILANO 1863 Salutogenic Pathogenic** State of Well-being DIPARTIMENTO DI ARCHITETTURA INGEGNERIA DELLE COSTRUZIONI E AMBIENTE COSTRUITO

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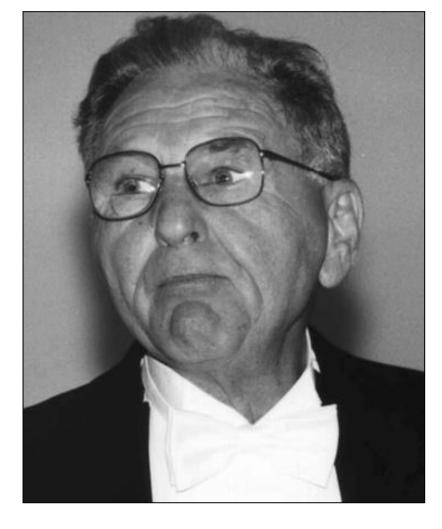
Stress Theory Model for Psychosocially Mediated Disease



L. Levi, 1972







Theory of Health and Salutogenesis

Health, Stress, and Coping

Aaron Antonovsky







E AMBIENTE COSTRUITO

SALUTOGENESIS = SALUS + GENESIS I I HEALTH ORIGIN

" Salutogenesis is an approach focusing on factors that support human health and wellbeing "



Antonovsky – How people manage stress and stay well (1976)



Theory of Salutogenesis

Aaron Antonovsky's health theory of Salutogenesis in contrast to the Pathogenic orientation of Healthcare, suggests that we shall look for wellness factors instead of risk factors.

Health care and medical science has been focused for factors that cure diseases and factors that lead to disease.





Salutogenic theory focuses on the guide to health promotion through healthy lifestyle by focusing on "STRESS" reduction and as well as coping with factors that causes "STRESS".

According to Antonovsky (1976





Studies on "SALUTOGENESIS" primarily addressed the fields of health psychology, behavioral medicine, and the sociology of health.

"SALUTOGENESIS" has also been adopted in the medical fields for preventive healthcare services delivery and healthcare architecture.

> The meaning of this concept was a dominant concern of Antonovsky (1976)





<u>Salutogenesis</u>

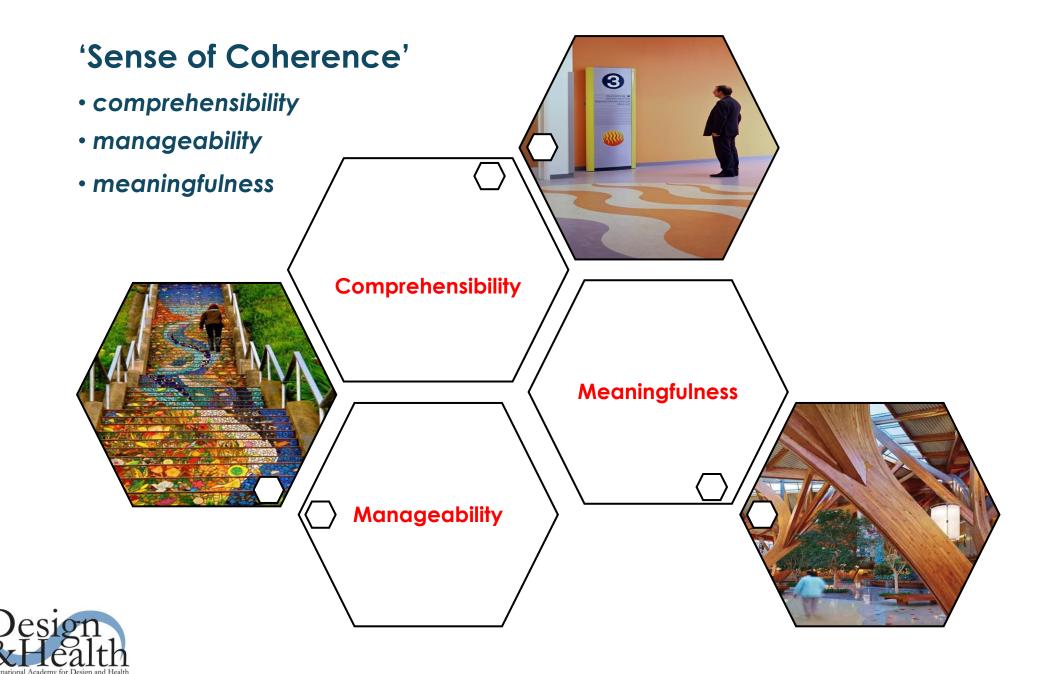
A proactive approach to health promotion and prevention (1)

Characteristic conditions that determine a person's abilities to cope with stress is the <u>Sense of Coherence (2)</u>:

- **Comprehensibility:** world is understandable
- <u>Manageability:</u> resources to meet situations
- <u>Meaningfulness:</u> life makes sense

Design &Health Viravong, Khamphira, "Salutogenic community building," International Journal of Web Based Communities, Vol. 3, No. 1, May 2007,p 32-43.
 Antonovsky, Aaron, Health, Stress and Coping, Jossey-Bass, San Francisco, 1982, p 14.

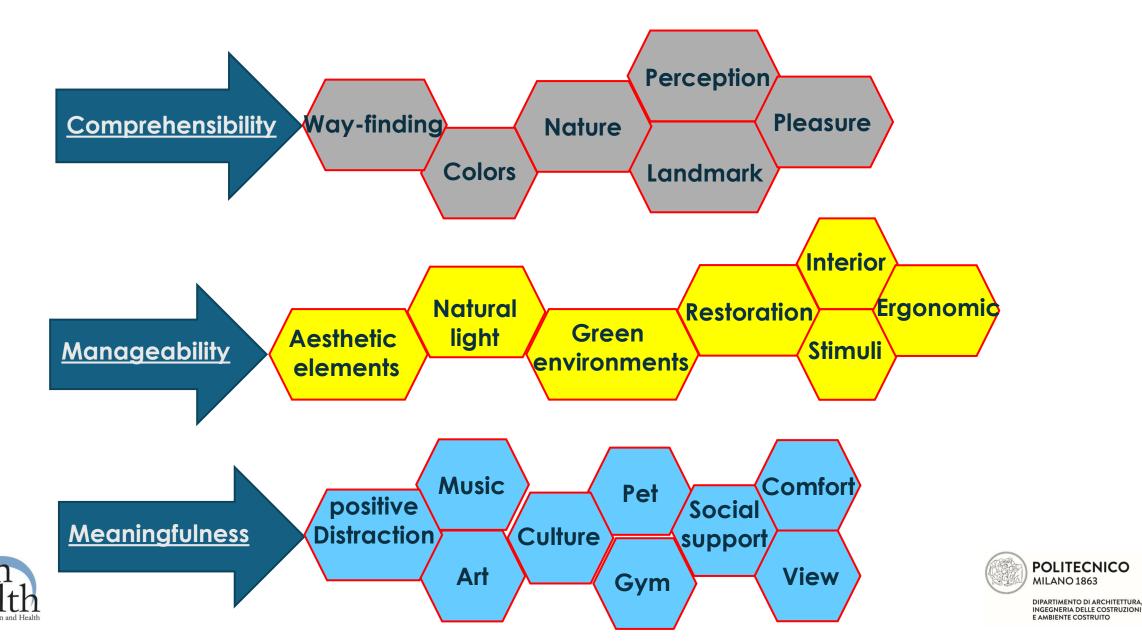




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Translating Salutogenic Design Theory into Environmental Design Factors



C10

Salutogenic Design Factors (Dilani, others)...

Research suggests that the following have a positive or salutogenic effect on individuals:

Social organization, personal control, quiet, soft light, nature, art, music, architecture and building proportion, social support, uncrowded spaces, color, comfort, daylight, separation from daily stimuli, need for fascinating stimuli, good sleep, ergonomic form etc

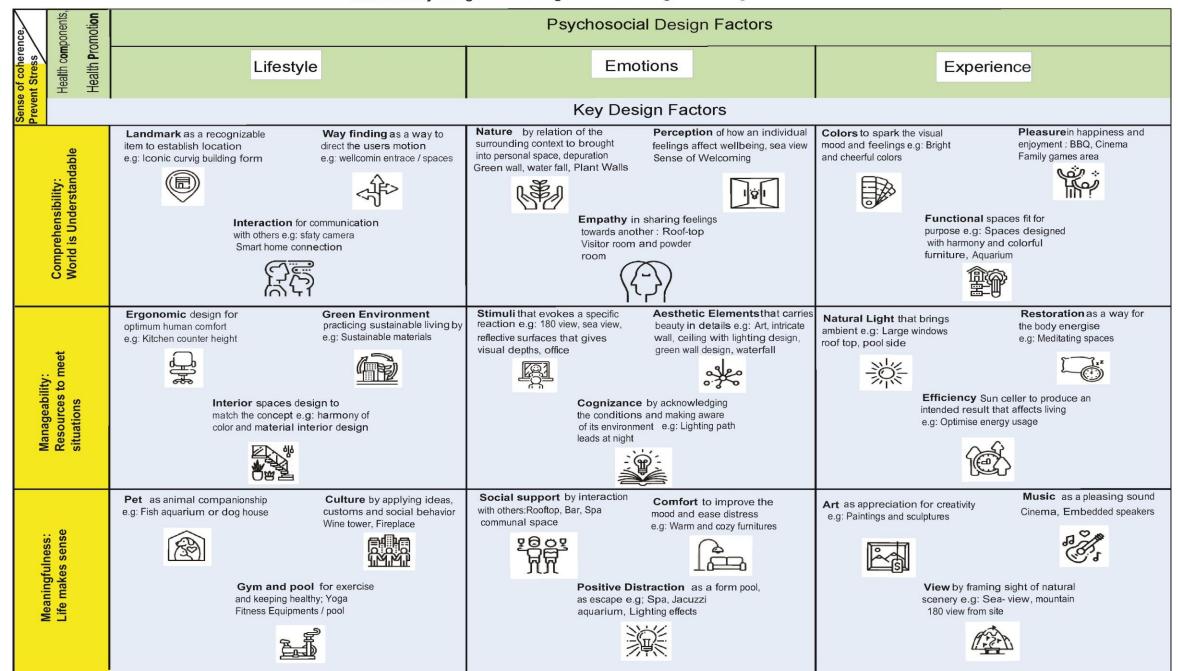
Alan Dilani, Psychosocially supportive design: a salutogenic approach to the design of the physical environment, *International Hospital Federation Reference Book 2008-2009*, p. 32-37.

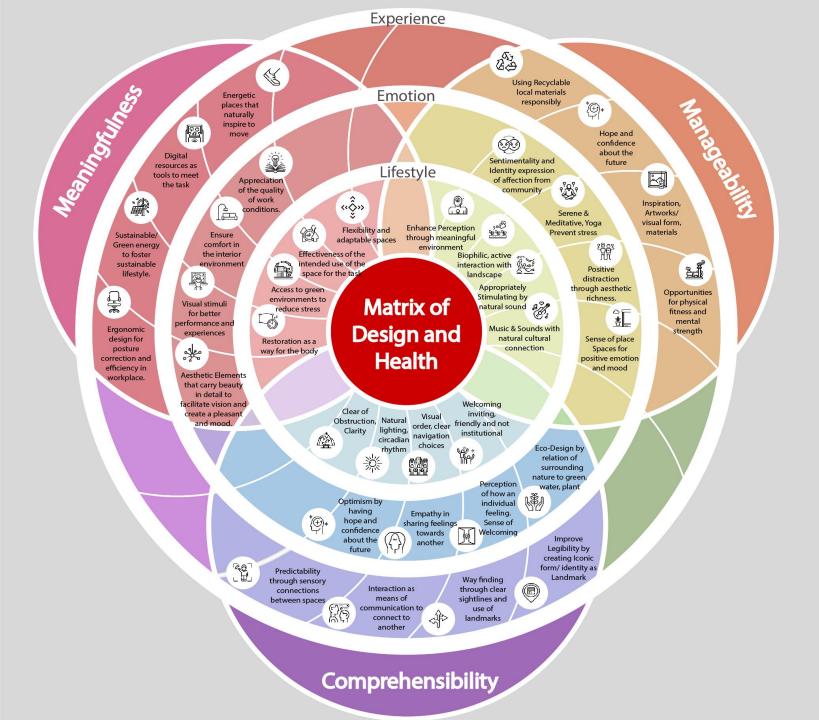




Health House

Matrix of Key Design Factors as guide for the design of Salutogenic Health House in Eze





Salutogenic Hospital Design

<u>Matrix of Design</u> and Health

for creating the Future Hospital in UK Submission for the Wolfson Economics Prize 2021



"A measurable aspect of design that can help people operate at peak performance and help them to maintain physical and mental wellbeing. It is the ultimate investment in people in an architectural sense."

~ Aaron Antonovsky



















St. Olavs Hospital in Norway Considered as the best hospital design in the world Winner of 7 categories of International Academy Awards Toronto- Canada 2014

















Health Promotion by Design in Elderly Care

11

Alan Dilani Aqneta Morelli





Salutogenic

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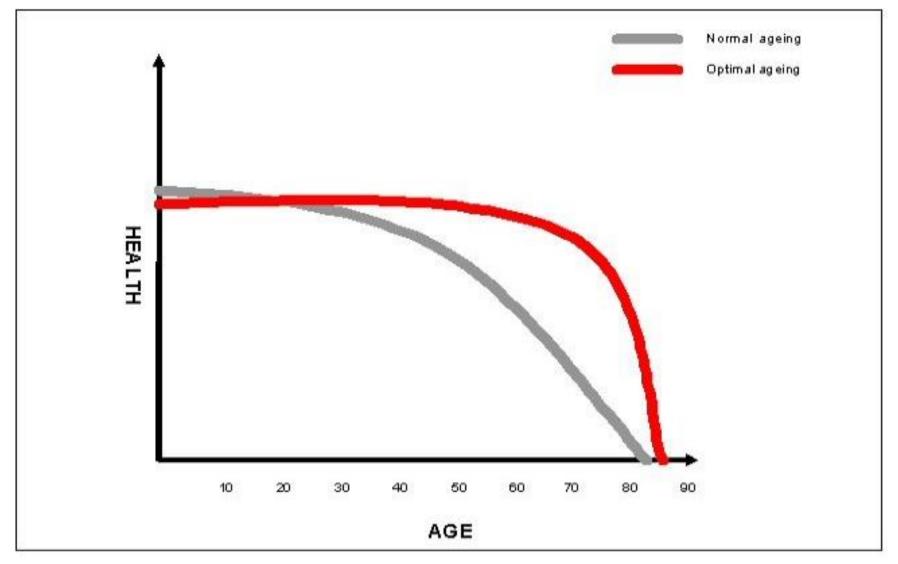
SUPPORTIVE ENVIRONMENT FOR ELDERLY WITH DEMENTIA (HALF DAY SYMPOSIUM)

To facilitate the service planning of different service units and prepare for dementia care through environmental consideration

20 May 2015 (Wednesday) 9:15am-12:50pm Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai



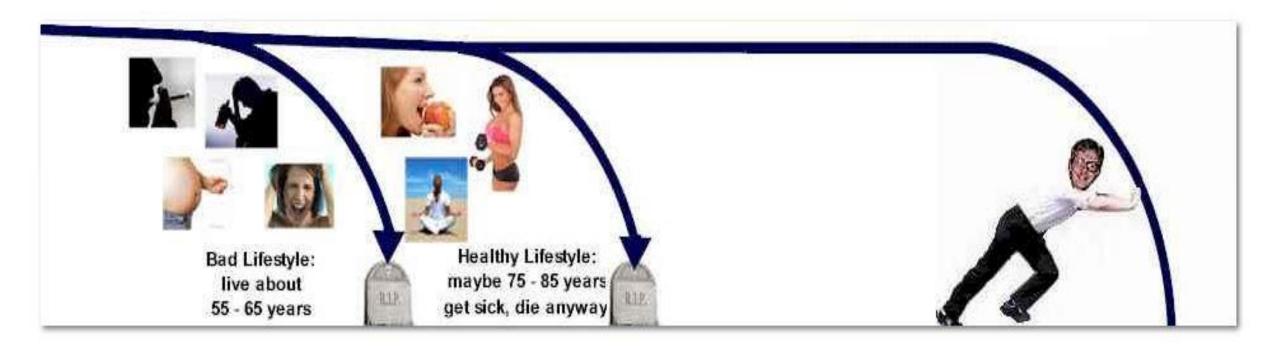
Health promotion for elderly





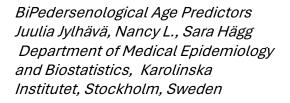


Extend the healthy years

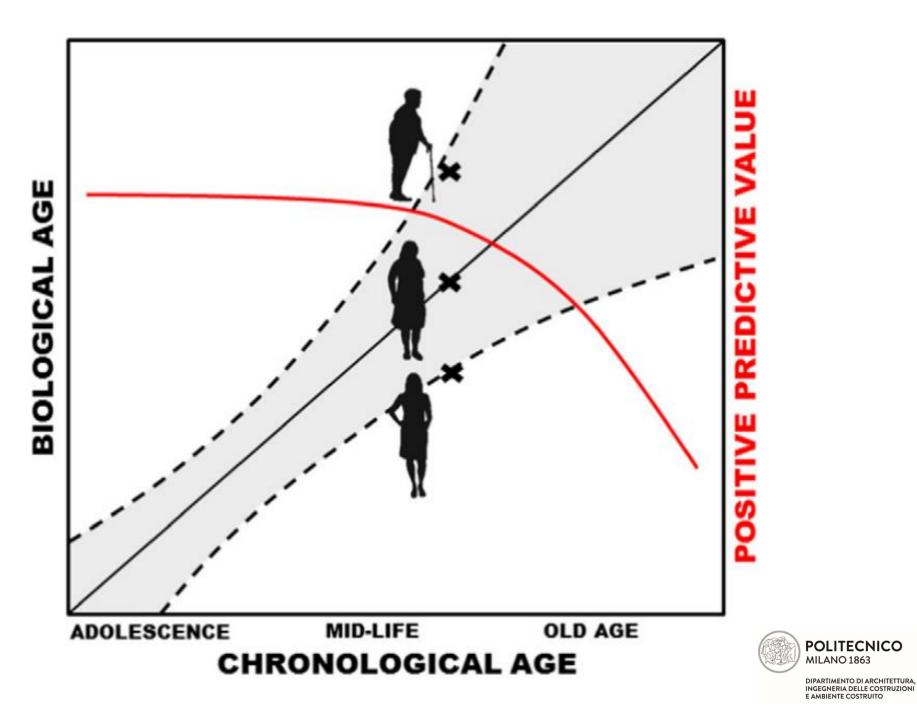




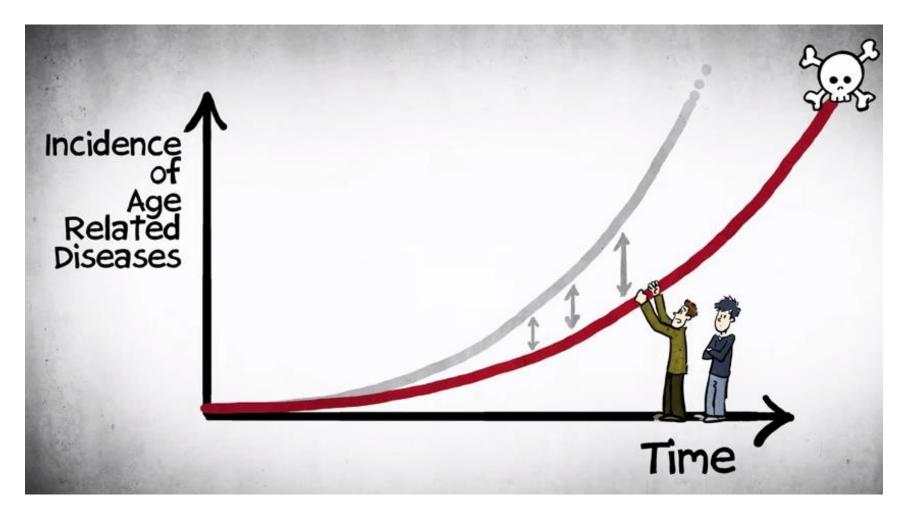








IF WE COULD SLOW THE PROCESS OF AGING BY 7 YEARS THIS COULD REDUCE THE AGING RELATED DISEASES BY HALF







Healthy aging – Active aging

- Smoking cessation
- Physical activity
- Social networks
- Equality (income/Education)
- <u>The built environment</u>







OLDEST 92 MARATHON RUNNER



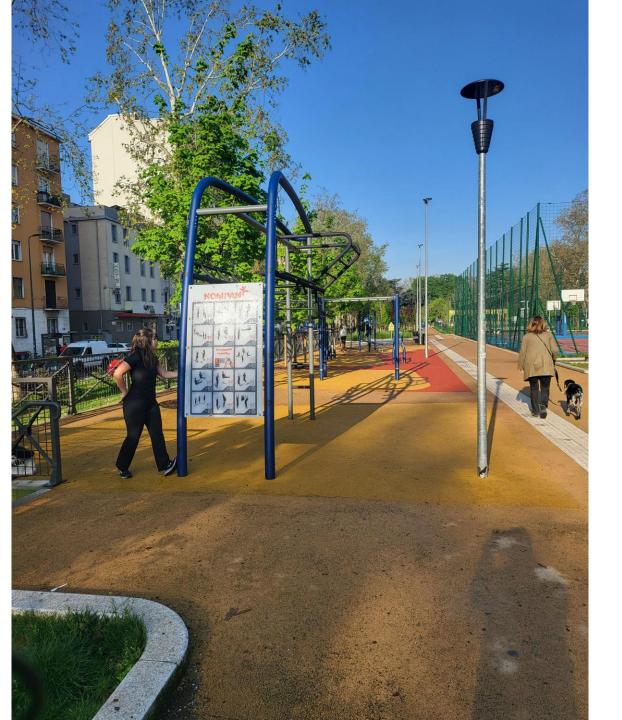


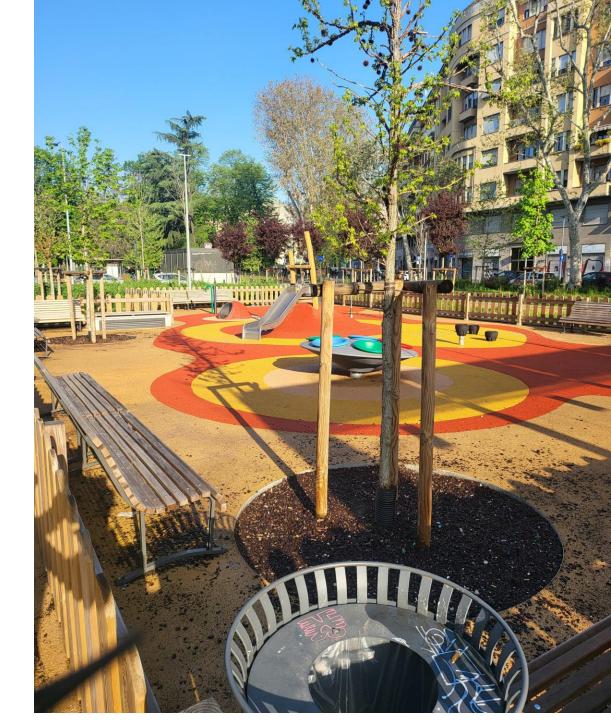


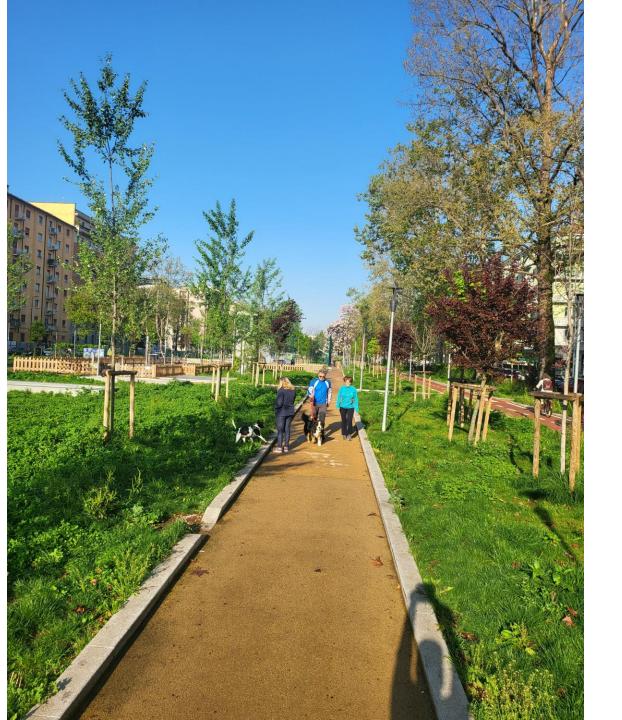


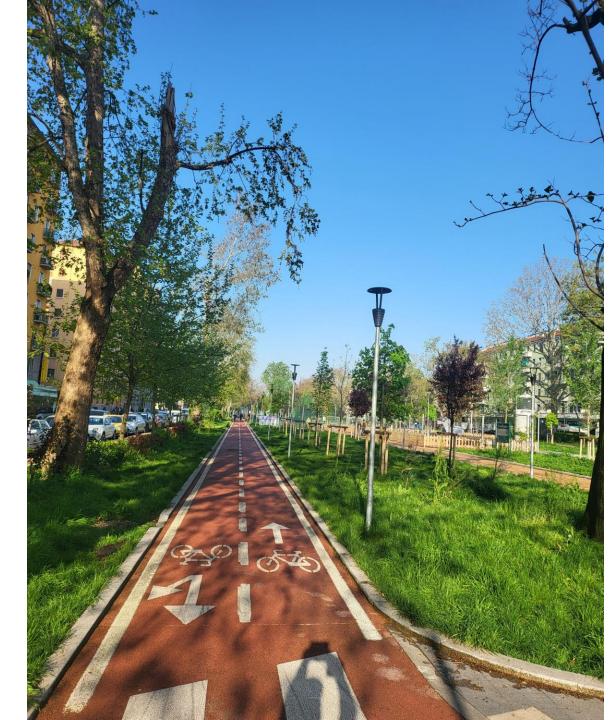
Salutogenic Urban Design











Salutogenic Urban Design

Creating Salutogenic Learning Environment, Parul Ph.D.

Salutogenic School Design

C ent ss vents rith	PSYCHOSOCIAL DESIGN FACTORS			C ent ss vevrs rr	PSYCHOSOCIAL DESIGN FACTORS			C ent ss ss vevrs rn mov	PSYCHOSOCIAL DESIGN FACTORS		
SO Prev stre stre compo compo di HEAL	LIFESTYLE	EMOTION	EXPERIENCE	SO Prev stre: compoi of HEAL PROMO	LIFESTYLE	EMOTION	EXPERIENCE	SO Prev stre compo HEAL	LIFESTYLE	EMOTION	EXPERIENCE
COMPREHENSBILITY "World is understandable"	Improve LEGIBILITY by creating unique identity of each block.	Build CONFIDENCE through natural surveillance (esp corridors& toilets) to counter bullying.	WELCOMING entrance, inviting, friendly and not institutional-looking or forbidding	MANAGEABILITY "Resources to meet needs"	ERCONOMIC DESION for posture correction and efficiency in class room	REDUCE learners' STRESS by the use of colours to facilitate vision and create a pleasant atmosphere and mood	Create BUFFER ZONES from outside traffic and large school playgrounds to reduce noise disturbance	MEANINGFULNESS "Life makes sense"	Let CULTURE REFLECT by Using local materials and signature elements	LEARNING COMPASSION by spending time with pets in the school garden.	AGENTIC LEARNING environment to fuel belongingness
	WAY FINDING through clear sightlines and use of landmarks	SECURITY through transparency. ex. Landscaping and trees must be carefully chosen to not block sightlines.	VISUAL ORDER through limited and clear navigational choices.		SUSTAINABLE / energy Efficient /VERNACULAR architecture to foster sustainable lifestyle.	Ensure COMFORT in the Interior environment so children can concentrate on the task at hand ex thermal and acoustic	Opportunities of ACCESSING GREEN ENVIRONMENTS in break periods in order to rejuvenate.		Inspiration through ENGAGING and well designed LIBRARIES, performing /visual art areas	Developing EMPATHY for other children through informal interactions	STIMULATING ENVIRONMENTS appealing to all senses ex. falling water sound
						References of the second secon					
	PRIVACY through provision of retreat areas in classroom or in corridors to observe others and be alone as well.	AUTHENTICITY & HONESTY conveyed through use of natural materials and construction.	Create HOMELIKE environment by using familiar elements.		Improve accessibility and safety through the use of UNIVERSAL DESIGN principles	VISUAL STIMULI by student work display fuelling better performance	Participatory planning to boost SELF EFFICACY and competency.		Intimate scale green spaces for positive PEER INTERACTION	AESTHETIC RICHNESS through materials and furnishings in order to refresh and reflect	BIOPHILLIC DESIGN to experience proximity to nature
	Safe Community involvement through ACCESS CONTROL.	Foster designing places with respect for scale and developmental needs.	TERRITORIALITY to value personal space ex. Home base for every student (LOSD).		BUILD COMPETENCE through flexible spaces suited for multiple modes of learning	Allow NATURAL LIGHT into the classroom to uplift the mood and improve efficiency	ATTENTION RESTORATION through outside / green views to allow minds and eyes to take a break.		GYM and playground for PHYSICAL FITNESS and mental strength	SENSE OF PLACE through display of student artwork in corridors and waiting areas	RISK TAKING OPPORTUNITIES (perceived) to experience sense of adventure









Creating Salutogenic Prison Environment, Ph.D.

Salutogenic Prison Design

CCD

CORRECTIONAL FACILITIES DESIGN & DEVELOPMENT SUMMIT

AMSTERDAM, THE NETHERLANDS

10-11 June 2021



Alan Dilani, Ph.D. Professor, Architect/Public Health Founder International Academy for Design & Health



SALUTOGENIC PRISON DESIGN - A Health Promoting Approach on Prison Environments

- Based on the health promotion of a well-established theoretical framework for psychological support design
- The impacts of sound, daylight, lighting, music, nature, translation, orientation and productivity
- Identifying fresh factors that can be psychosocially encouraging and promoting health and safety





Visionen om Hälsofrämjande Anstaltsmiljöer -som en ny värdegrund inom Kriminalvården

Alan Dilani

CORRECTIONAL FACILITIES DESIGN & DEVELOPMENT SUMMIT

AMSTERDAM. THE NETHERLANDS



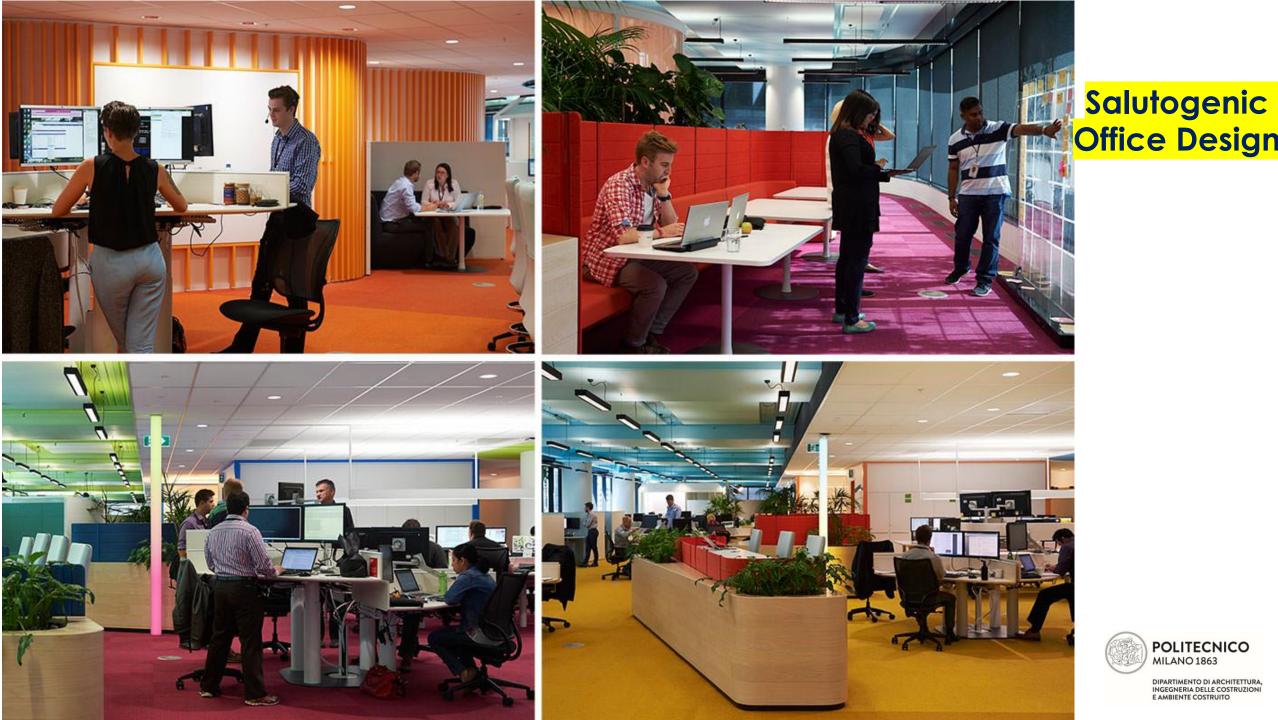
SALUTOGENIC PRISON DESIGN - A Health Promoting Approach on Prison Environments

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Alan Dilani, Ph.D. Professor, Architect/Public Health Founder International Academy for Design & Health











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More moving lead to:

Happier, Less Stress Healthier, More Creative Better Brian Performance



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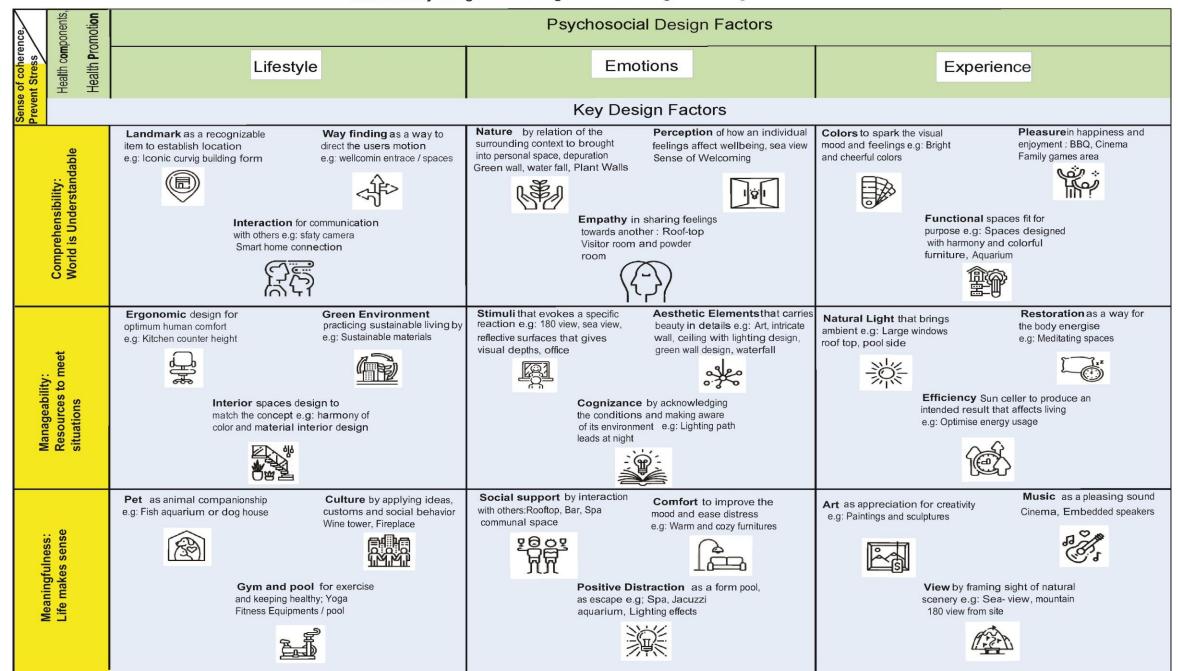
Salutogenic Housing Design To Promote Health Lifestyle Behaviors , Ph.D. in Manchester University, UK





Health House

Matrix of Key Design Factors as guide for the design of Salutogenic Health House in Eze

































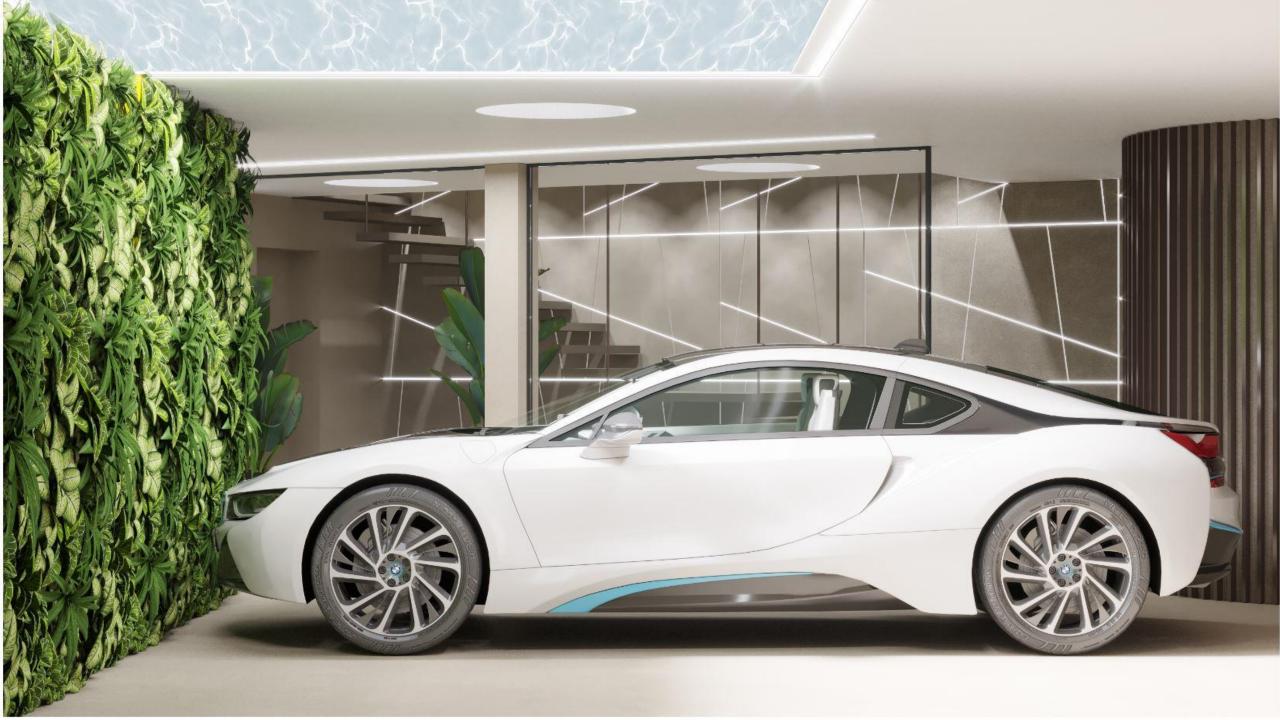




















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