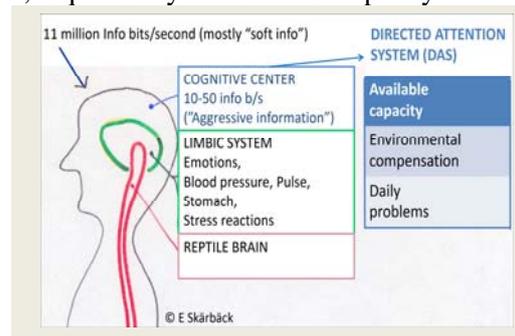


How to develop restorative work places for fruitful creativity, a university green ranking model

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Since long studies show that stays in natural sites are good for people's health. Tastes for landscapes are different due to peoples experiences of their own landscapes from their childhood, but peoples need to relax, recreate, to play, to meet to be stimulated are universal. Processing the sensory impressions of our modern stressful life requires a great deal of mental capacity; impressions from nature, however, such as rustling sounds from a bush, seeing a butterfly, birds, etc., require very little mental capacity.

Many studies have showed high correlation between green areas and health/wellbeing. Sweden has particularly large datasets for research of health and wellbeing, not only as an effect of green exposure as one total parameter, but also the specific effects of several parameters for different Perceived Sensory Dimensions (PSDs), also named characteristics and affordances: They are 1) *serene* – places where we can hear the sounds of nature; 2) *wild* – places where we can be fascinated



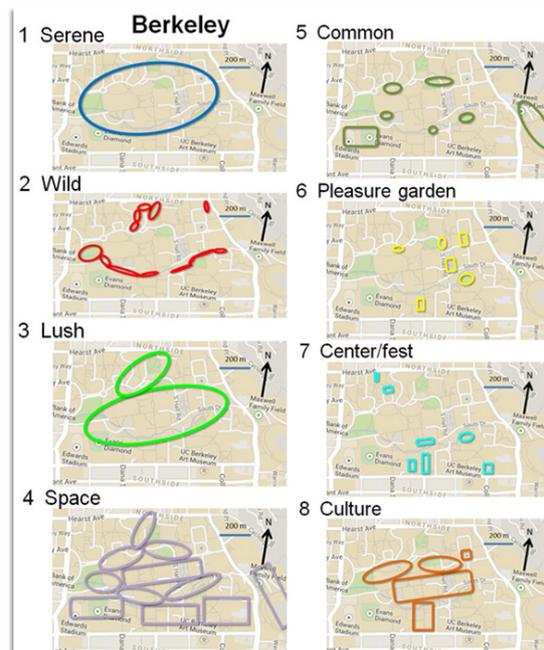
by untouched nature; 3) *lush* – Species rich places where we can experience variation in vegetation and animal life across the seasons; 4) *space* – places that allow us to enter into another world, a coherent whole without sharp contours, disturbances or signals that demand attention; 5) *common* – places where we can engage in common activities; 6) *pleasure garden* – enclosed and secure places where we can enjoy a feeling of safety; 7) *center/fest* – squares, meeting places and cafeterias/restaurants where we can visit with other people; 8) *culture* – places where we can experience traces of previous generations' lives. The characteristics (PSDs) 1-5 and 6, use to be the most restorative for stress reduction in different studies.

One study of a Chinese and a Russian city show that despite differences in culture and history great similarities were found in people's desires for environmental outdoor improvements, and that serenity was the most preferred and most lacking affordance.

Research relevant for studies of restoration from occupational burnout is also relevant for the prevention at workplaces, but not only that. Studies show that stays in green environments affording certain sensory dimensions improve your concentration ability, your short-term memory, and also you show a higher degree of empathy to people around you, i.e. you cooperate better and can create better together at your workplace.

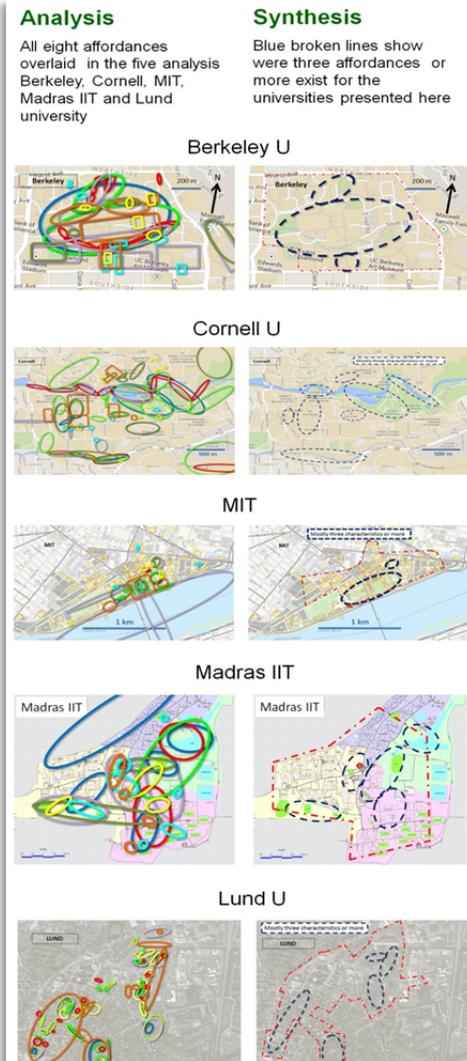
Research results on PSDs' efficiency in promoting health and wellbeing is now so strong and valid that it is time to implement the knowledge across disciplinary boundaries through collaborations between researchers, landscape architects, architects, developers, planners, policy-makers and politicians.

This presentation is about a program how to improve real estate qualities for recovery at workplaces and to increase wellbeing and productivity.



A long term aim is to develop certification criteria for restorative work environments, particularly environmental psychological aspects lacking in current certification system.

A pilot study was provided for KI campus, the highest ranked University of Sweden. The stress at KI is great and varies by staff category. Environmental experiences and wellbeing vary across outdoor rooms with different qualities. KI lacks pleasure gardens for small meetings/talking/socializing.



One initiative is **Restorative workplace**, coordinated from SLU, a network of actors in construction, consultancy and real estate to develop opportunities for recovery, increased wellbeing and productivity through the use of improved environmental qualities. (Project time 2012-2017)

So far was the availability of PSDs at very highly ranked universities and workplaces elaborated. Twelve universities have until now been classified. All eight characteristics/affordances (PSDs) were overlaid for the campus areas. Areas were three affordances or more overlays (blue broken line) are very good. Such areas percentage of the total campus area is used for the ranking.

12 universities so far in study
% of area having ≥ 3 affordances

University	%
Berkeley U	44
Stanford U	41
Princeton U	40
Yale U	30
MIT	28
Madras IIT	27
Columbia U	25
UCLA	24
Cornell U	24
Karolinska Inst	24
Harvard U	21
Lund U	20

These universities are randomly chosen among several high ranked universities

For further details Se also this link <http://restorativeworkplace.com/studies-of-some-university-campus/>

A great deal of the innovative thinking, creativity and production are taking place in looser constellations within and between companies, universities, individual entrepreneurs and researchers. Such constellations require freer forms in which to have meetings, exchange ideas and be creative, e.g., cafés, bars and restaurants, and meeting rooms. But in addition to these places meant for intensive interaction, where our sympathetic nervous system is stimulated, our parasympathetic nervous system also needs places where we can relax. Interchange of this makes a happy workday.

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