

# 1B User Research Report For Newtown Tramsheds



## **Table of Contents:**

<b>Precedents:</b>	<b>3</b>
The Barai Spa and Residential Suites, Khiri Khan, Thailand	4
The Floating Lotus, New York City	5
One Man Sauna, Modulatorbeat, Bochum	6
GAME StreetMekka, Esbjerg, Denmark	8
American University of Beirut Medical Center, Beirut, Lebanon	12
Daybreaker, New York, United States of America	13
Meditation Hall, Hebei, China	15
The Elements of Byron, Byron Bay, Australia	18
Amangiri Resort, Utah, USA	20
Caring Canines Visiting Therapy Dogs, Inc. Boston, United States of America	23
Santini Wellness Resort & Spa, Kandy, Sri Lanka	24
Nanam Retreat Pure Spa, Da Nang, Vietnam	26
Euphoria Retreat, Mystras, Greece	28
The Shelter Double Bay, Sydney, Australia	30
<b>Research:</b>	<b>32</b>
Effects of Massage Therapy	33
Flotation Therapy	34
Sensory Deprivation & Flotation Rest	35
Wellness, Greenery and Public Spaces	37
Circadian Rhythm	39
The Roles of Psychedelics and Rave Culture in Wellness	40
Meditation and Wellbeing	42
Meditation Practice and Aging	43
Health Benefits of Blue Light Exposure	44
Animal Assisted Therapy	45
Mindfulness	46
Healing the body	47
Salt Therapy, Speleotherapy & Halotherapy	48
Cold and Heat Therapy	49
<b>References:</b>	<b>50</b>
Precedent & Research References	

# Precedents



# Precedent: THE BARAI

## Spa and Residential Suites

Designer: 'Lek' Mathar Bunnag  
Location: Hua Hin, Prachuap  
Khiri Khan, Thailand  
Size: 18,500 square metres  
Owned by: Hyatt Regency Hua Hin



Fig 1.

THE BARAI offers a holistic approach to wellness; framed around the body, mind and spirit, the precedent evokes a sense of calmness and tranquility. With 18 treatment rooms and 8 residential suites, visitors are able to experience a variety of spa treatments and massages or can choose to book lengthened stays (3/5/7 days) to take part in tailored lifestyle collection programs which revolve around rest and relaxation, exercise and nutrition. These programs have various options such as for relaxation, fitness, body cleanse, yoga and healthy weight.

Barai Suite guests have personalised butler service, healthy lifestyle consultation, body composition analysis, are provided 3 meals a day and complimentary entry and use of facilities such as the Tranquility Court pool, relaxation area, steam room and sauna as a start. There are additional lifestyle activities such as garland-making classes, cooking classes, Thai boxing, stretching and Tai Chi as well as optional guided or unguided tours to local temples, markets and farms to encapsulate various aspects of wellness; invigorating the mind, body and soul.

THE BARAI is located adjacent to Hyatt Regency Hua Hin over Hua Hin's beachfront enriched by the surrounding mature tropical vegetation. Named after barays; ancient man-made Khmer irrigation systems vital for survival, and linked to the philosophy of spa's in which water is representative of giving life, replenishing and healing, the architecture engages the senses and juxtaposes textural, solid structures to impermanence - tall solid walls to serene, reflective bodies of water (Fig.2); playful colours and cutouts that emit ambient glows from the sunlight (Fig.3) which summatively enhance the atmosphere of THE BARAI.

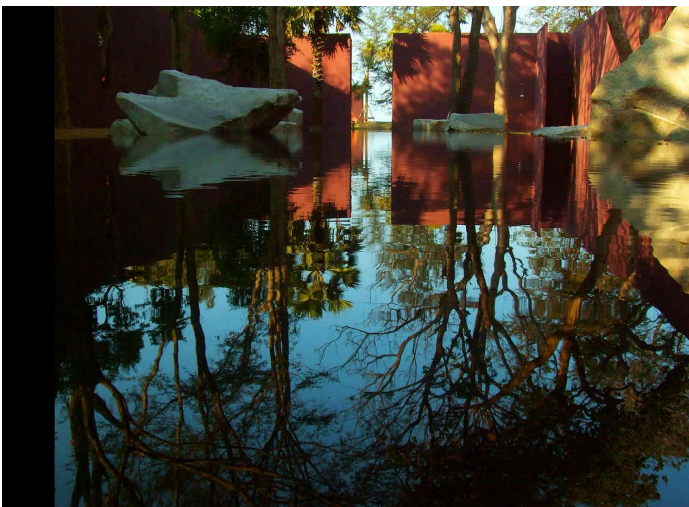


Fig 2.

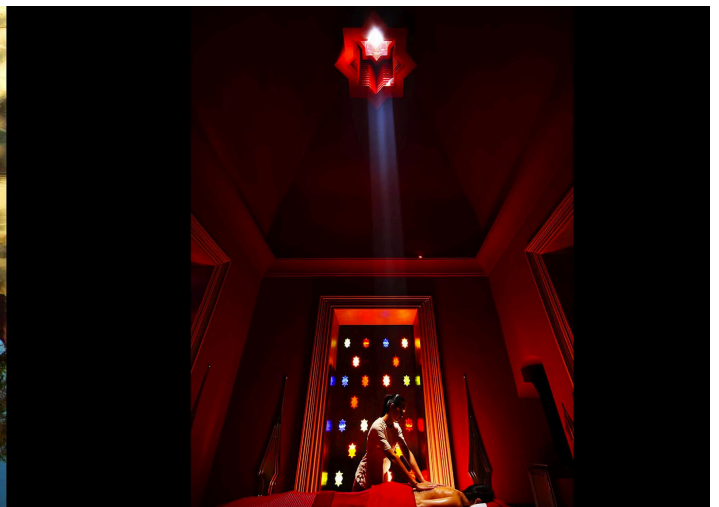


Fig 3.



# Precedent: FLOATING LOTUS

## New York City

The Floating Lotus is a wellness centre that offers various treatments; Flotation therapy, Acupuncture, Yoga, Massage and Reiki. Located in the heart of NYC, Manhattan it enables individuals to escape the bustle of the city and enter space of relaxation. Floating Lotus has used various materials through out their business catering to the many services that they offer. The main yoga space has a glass house roof to allow natural light to enter. Their private rooms are have their own unique fit-out catering to the services that they provide to patrons. Located in a penthouse there is also an outside patio that is accessible to patrons to allow them to relax in the open air above the streets below.

Materiality: Stone, wood and light wall colours creates a space that is uncluttered and uplifting allowing for individuals to inwardly reflect, breathe and relax in an apparent open and calming space.



© Main Room. Floating Lotus, 2019.

# Precedent: One Man Sauna

Modulorbeat, Bochum, 2014



Fig 1: Exterior view and surroundings

The German architecture Modulorbeat created the temporary “One Man Sauna” in the rural area of Bochum for the annual “DAS DETROIT-PROJEKT” (The Detroit Project). The Detroit Project is an arts festival that allows local practices to respond to the ideas of future cities with changing employment conditions. Thus, there was a great significance to the location of the project, as it ties in with the history of the region. Bochum had been known as a site of major coal and steel mines that have since been closed, and the region has a declining manufacturing industry. The architects of Modulorbeat proposed the sauna to be located on the site of an abandoned factory. “Our idea was to transform a former industrial site into a sauna, which is connected to the idea of doing nothing,” says architect Jan Kampshoff. “People working in the mines or the factories receive healthcare and leisure time so when these companies disappear they need other ways to look after themselves. That’s why we made a sauna.”

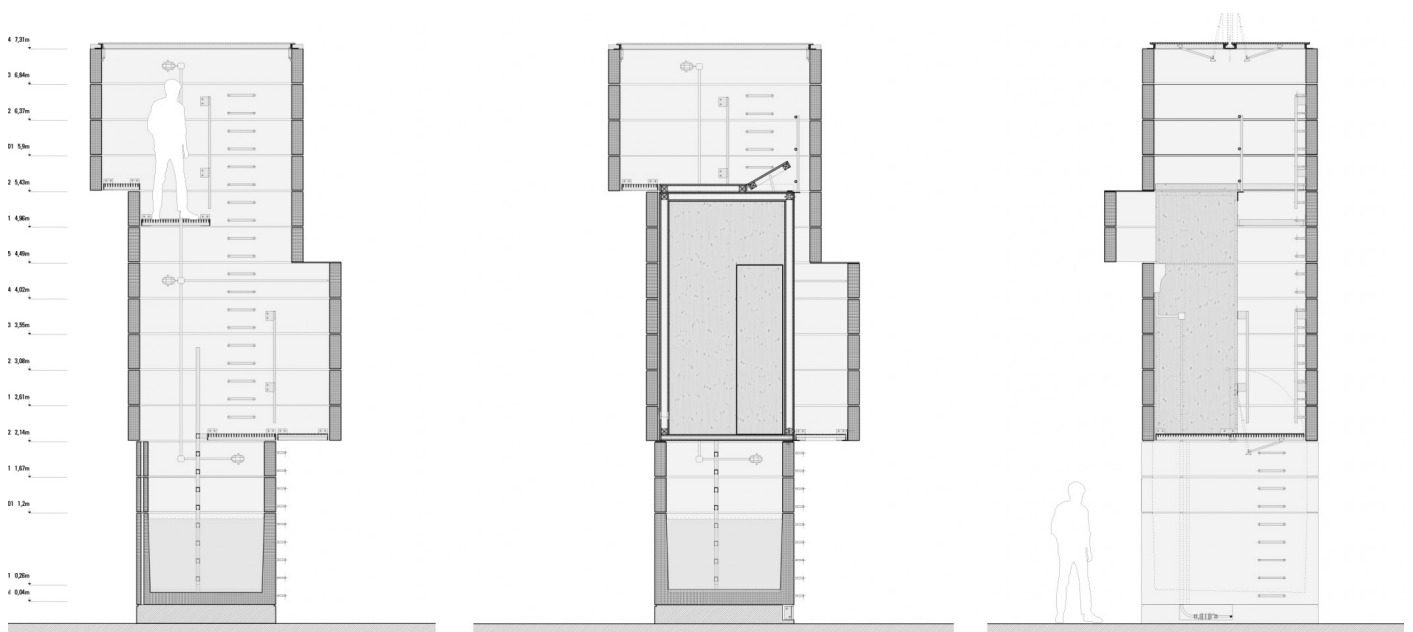


Fig 2: Sections



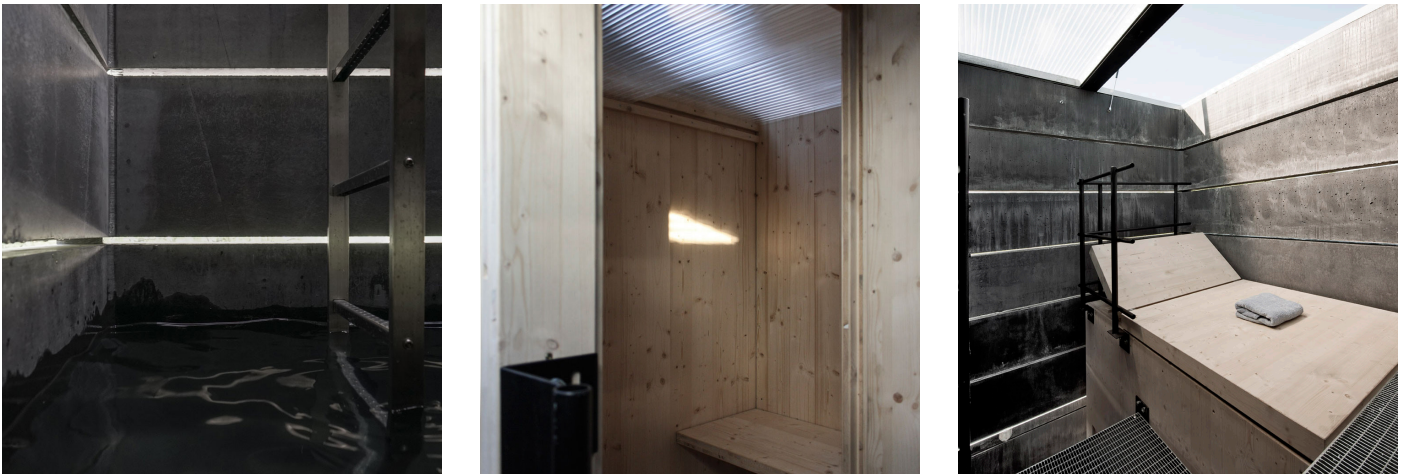


Fig 3,4,5: Plunge Pool, Sauna, Relaxtion Platform

The sauna itself is 7.5 metres high and constructed out of precast concrete chambers that would have been used for the construction of mining pits. The chambers are stacked to create a hollow structure, effectively creating an underground mining shaft above the ground. The chambers are organised in to three distinct functional zones, much in the same way a factory would. “We thought the ritual of taking a sauna is connected to idea of how work is organised,” says Kampshoff. The bottom level, which is a standard waterproof concrete mining chamber, has been transformed into a plunge pool. The middle and central chamber that is the first accessed upon entry is the electrically heated sauna room, with a wooden shell and plastic ceiling to allow daylight to enter. A ladder directly connects this chamber to the upper chamber that is considered the relaxing chamber. It consists of a wooden bench and a translucent roof that can be opened to reveal the sky and allows the guest to overlook the surrounding landscape.



Fig 6: Entering the sauna

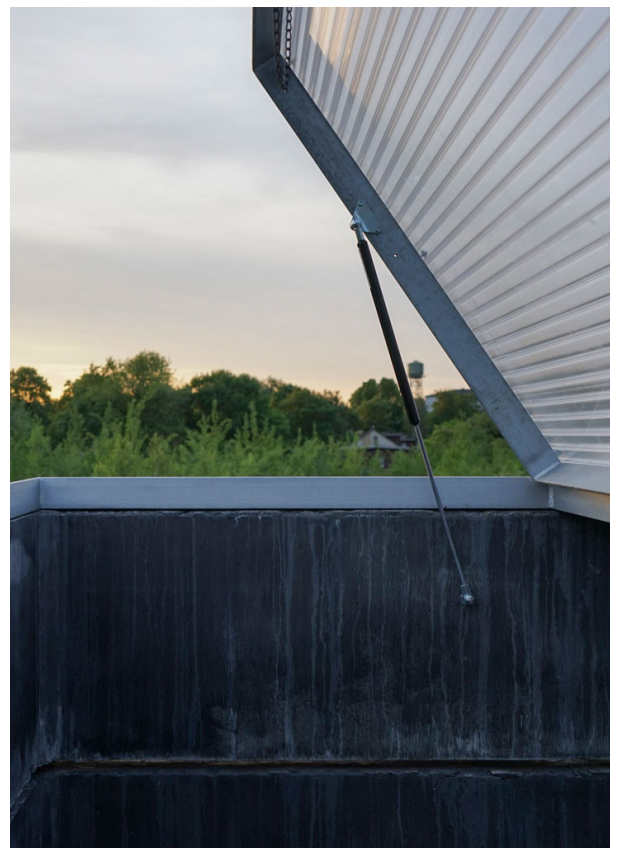


Fig 7: Detail of awning for viewing

# Precedent: GAME StreetMekka, Esbjerg Denmark

Project name :GAME StreetMekka Esbjerg  
Designer: Effekt, Denmark  
Typology: Cultural, Sports & Recreation  
Location: Esbjerg, Denmark  
Year: 2014-2016  
Size: 2,800 m<sup>2</sup>



Fig 1: Render of GAME StreetMekka showing a circular stepped arrangement of buildings. (Effekt 2014)

The GAME StreetMekka is a transformation of an abandoned historic train depot roundhouse into a street sports and culture facility to suit the growing needs of the residents of Esbjerg, Denmark's fifth largest and youngest city. The project was funded by Realdania, a modern philanthropic organisation whose mission is to improve the quality of life for all by supporting and focusing on how the built environment influences everyday lives, relationships, health and whole existence.

The project aimed to preserve the historic industrial space of the train depot roundhouse while utilising the existing infrastructure to create a new enjoyable space to allow for informal play. To maximise Streetmekka's relatively low budget Effekt restored the existing buildings on site to their original state and focused on creating additional insulated buildings with durable and low tech industrial materials. This allowed for the roundhouse to be completed reinstating the original spirit of place and fitting the historic and raw pragmatics with the aesthetics of street culture.

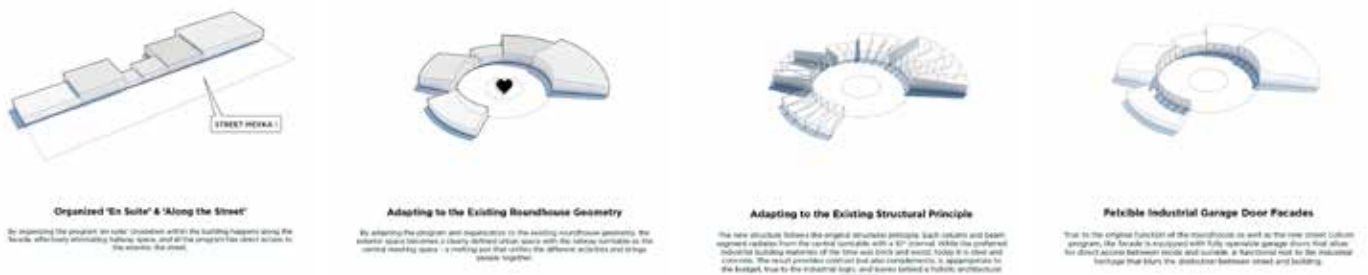


Fig 2: Design Principles (Effekt 2014)



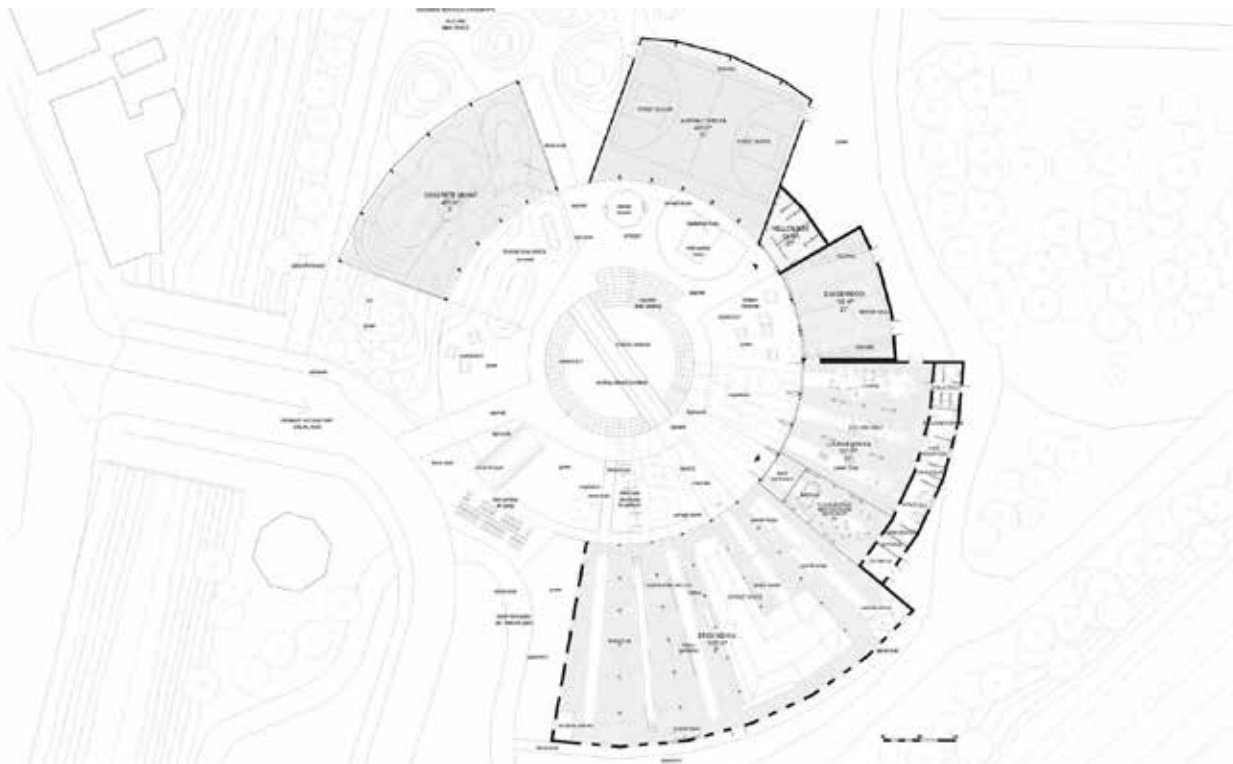


Fig 3. (above): Render showing the central social hub (Effekt 2014) / Fig 4. (below): Floor Plan (Effekt 2014)

The facility was primarily created to support and embrace a new wave of emerging unorganised street activities and provide a dynamic and safe space for children and adults to engage in these recreational activities. The project supports children, teenagers and young adults wellbeing and health by offering a series of unique spaces adapted to suit a variety of emerging, mostly traditionally counter-culture, street sports and activities such as skateboarding, break-dancing, graffiti and street art. While there are many informal spaces in Denmark for these activities to occur most are weather and temperature reliant on Scandinavia's unforgiving climate. By creating an internal hub for these activities to occur it ensures that the users can engage in healthy activities all year round.

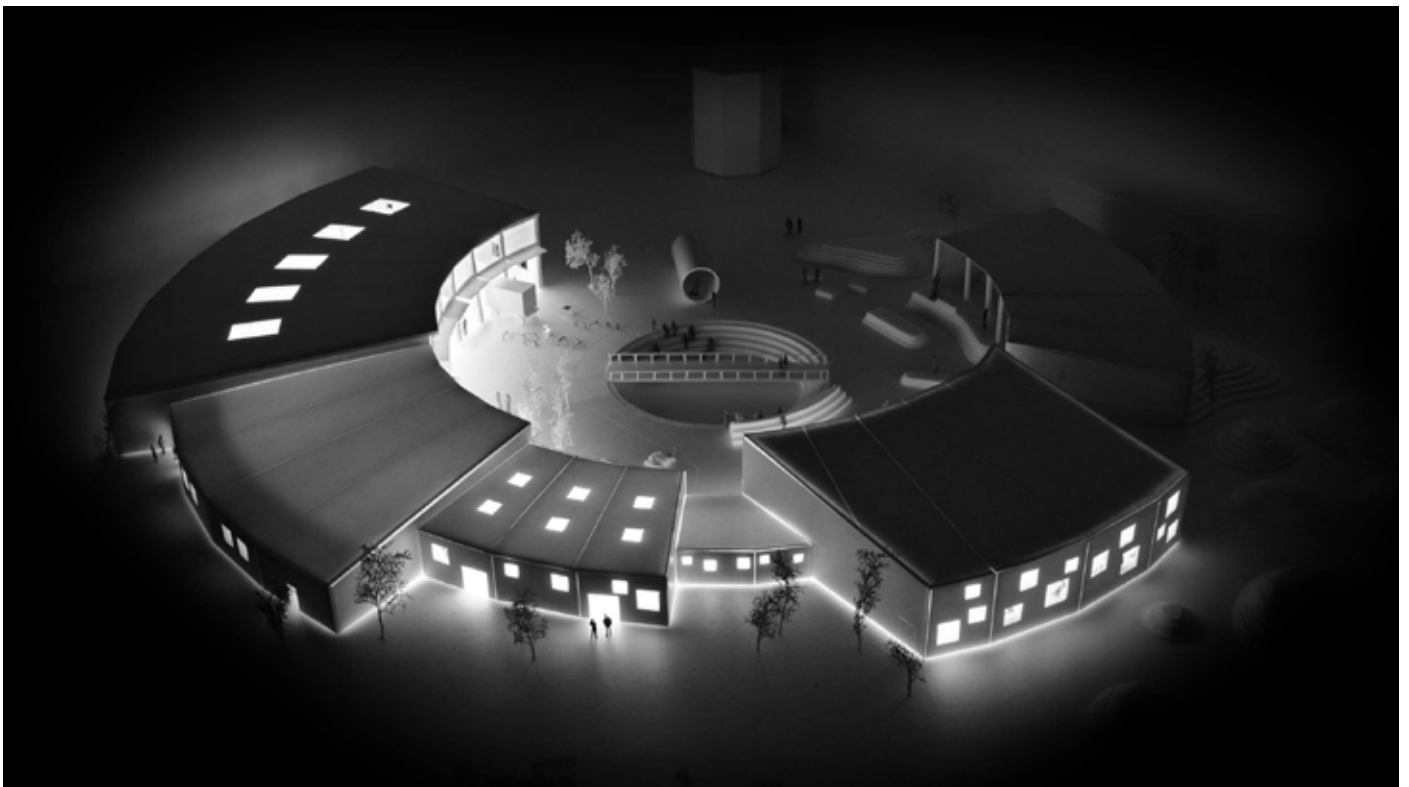
The flexible and dynamic arrangement of spaces around a central hub creates opportunities for spontaneity, collaboration and an opportunity for exposure to a variety of activities and people. There are also formal and supervisory spaces in the internal buildings and feature workshop areas for DJ-schools, meeting rooms, administration offices, a cafe, kitchen, changing rooms and a large social area and reception.

“The brief was equally exiting and ambiguous; is it even possible to create a framework for the unorganized sports that thrive with spontaneous participation and fluctuating schedules? And can we do so without compromising the cultural heritage of the existing industrial setting?” Said EFFEKT Partner Tue Hesselberg Foged. “We believe that with this project we prove that we can. Rather than taking the tabula rasa approach deleting history we chose to recycle and reinterpret the circular typology of the train engine depot and turn it into a hybrid of industrial heritage and social activity space.” (Scott, 2014)

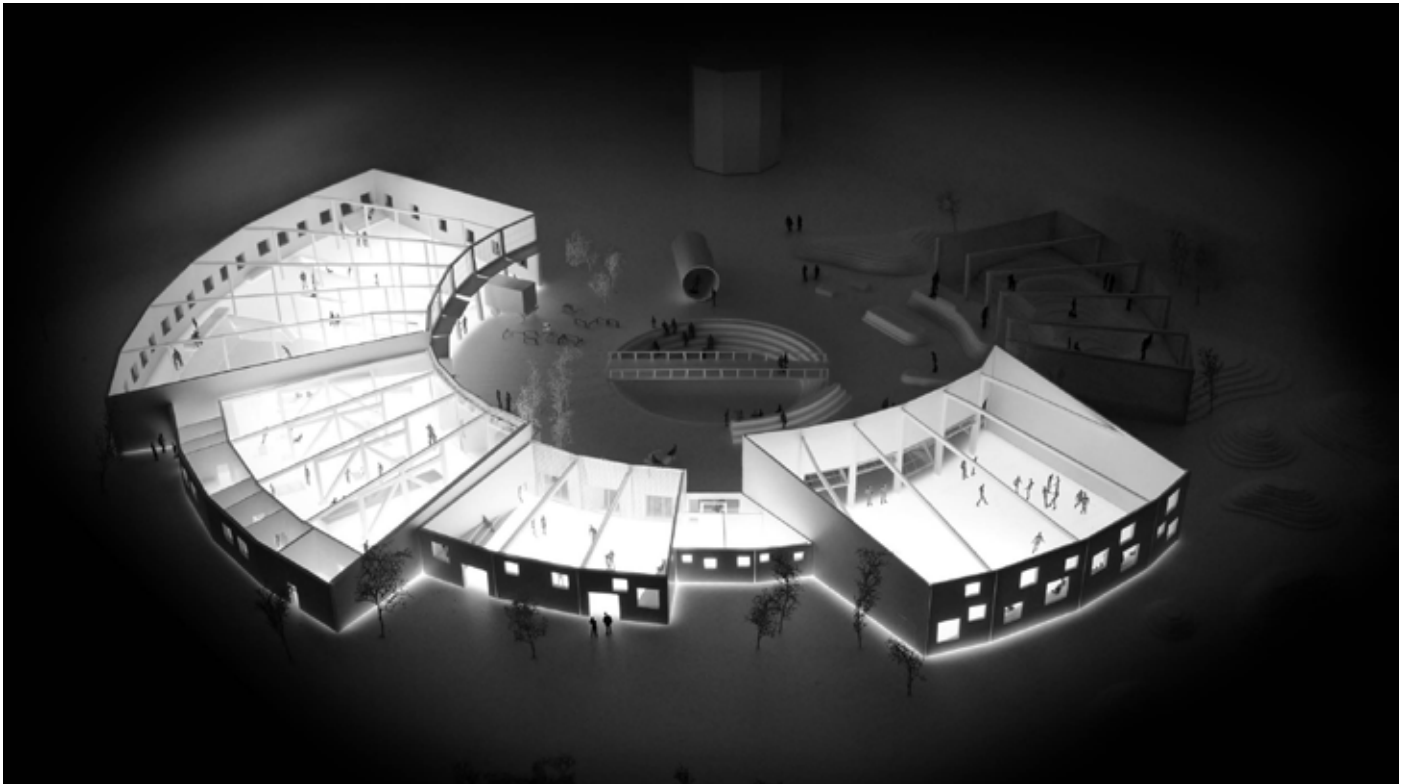








*Fig 6: Night time model showing roof and structural openings. All mekkas are able to be accessed from the internal courtyard and open space surrounding the centre. Internally the light inside spills through double height openings onto the courtyard illuminating the outside recreational area. (Effekt 2014)*



*Fig7: Night time model showing the internal structure and programme. The roof is supports slope upwards towards the central courtyard creating double height openings to allow light out during the evening and natural light in the daytime. The circular structure maximises the usable floor space allowing for a wide range of activities. (Effekt 2014)*



# Precedent: American University of Beirut Medical Center

Beirut, Lebanon



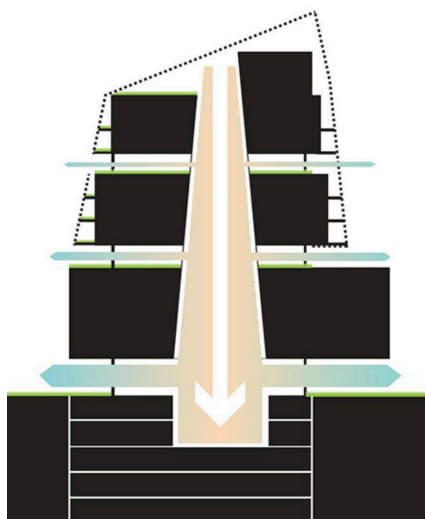
*AUBMC's interior light well (P+W, 2019)*



*AUBMC's exterior (P+W, 2019)*

The American University of Beirut Medical Center uses a central light well to illuminate and fill its interior space with an abundance of natural daylight. From the top level all the way to the basement, a void is situated in the centre of the floor allowing access of sunlight from the top. The building utilises a heliostat - a mechanical device that turns a mirror plane in order to keep reflecting sunlight onto a target

- to compensate for the sun's apparent motion in the sky and maintain a desired amount of sunlight to illuminate the interior. Having daylight be such a core component to the space shows the design's intent to cater for inhabitant's circadian rhythm and its importance in maintaining the wellbeing of patients in a medical centre.



*Lighting diagram of central light well (P+W, 2019)*



*Axonometric section of AUBMC (P+W, 2019)*

# Precedent: Daybreaker

## Wake Up & Dance

Precedent: Daybreaker

Founder/s: Radha Argawal, Matthew Brimer

Typology: Sober Morning Raves

Location: New York, USA

Year: 2013



Fig. 1 Daybreaker - Yoga

Abandoning the night, a steady trend of rave-goers has been opting for morning raves which occur in the early hours of the day during the middle of the working week. This international trend has been changing the way people start their days, addressing the growing trend of health consciousness and wellness.

Daybreaker, an international dance movement of sober early morning raves that have been steadily gaining popularity recently, was created by co-founders Radha Agrawal and Matthew Brimer as a social dance experiment. This idea came about from the frustrating observation at nightclubs, with drunk and disorderly people, intimidating bouncers and the lack of dancing. Wanting to break the association of dance and fun from its negative connotations of drugs and alcohol when addressing the topic of Rave Culture, encouraging people to relax and enjoy themselves without the pressure of substances.

With D.O.S.E. one of the main concepts behind Daybreaker, the acronym represents - Dopamine, Oxytocin, Serotonin and Endorphins the feel good chemicals the brain releases as a natural high without relying on recreational substances to do so.

Their first rave held in the basement lounge of Coffee Shop in Union Square, New York was hugely successful and continued to prosper that within four years' time, Daybreaker has expanded internationally to host raves in 25 countries.

Presenting itself as an alternative way to start the day, this pre-work workout in the form of a rave lasts for 4 hours, beginning at 6:00am with an hour of yoga and fitness exercise before rolling up their mats at 7:00 and dancing for the remaining 3 hours.



Drawing inspiration from Burning Man, Daybreaker provides live entertainment in the form of DJs and live performances to supporting artisans with live painting and poetry. Promoting the idea of health and wellness, Daybreaker is a strictly non-alcoholic event, its bar offers a wide variety of healthy alternatives including coconut water, juice, coffee, tea and kombucha as well as health snack and fresh fruit.

Not just a place to party, Daybreaker has become a community and support system of acceptance where each individual belongs, with self empowerment and uplifting reminders to let loose and not be judged. The closing of the rave consists of meditation and the acknowledgement of camaraderie by joining hands together before going home and continuing on with their day.



*Fig 2. Daybreaker - Sober Morning Rave*



*Fig 3. Daybreaker - Morning Yoga*



# Precedent: Meditation Hall by HIL Architects

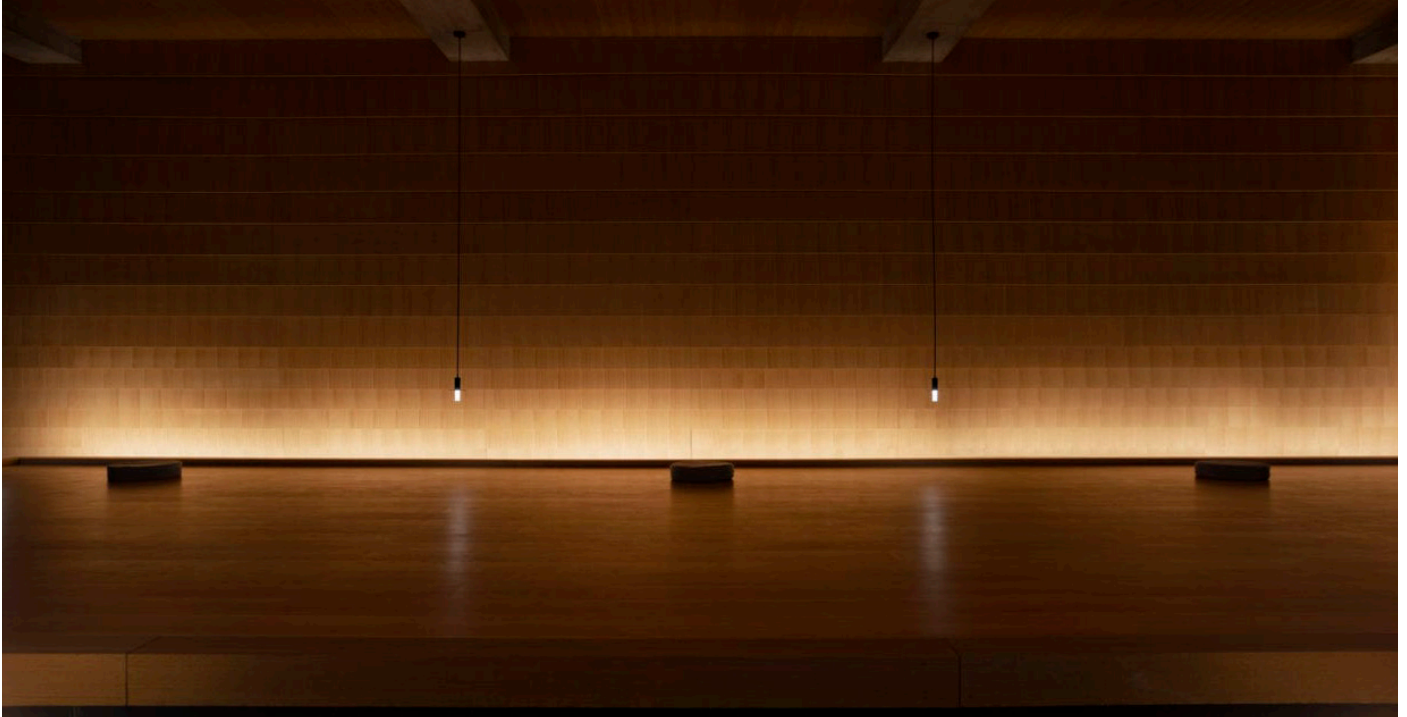
Architects: HIL Architects

Location: Huanghua, Cangzhou, Hebei, China

Lead Architects: Dao Yu, Bo Cheng, Bo Li

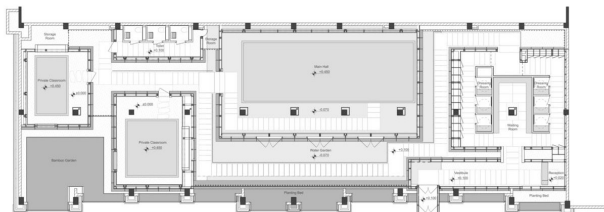
Area: 600.0 m<sup>2</sup>

Project Year: 2018



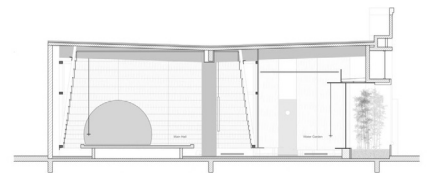
*Main Meditation Hall (HIL Architects, 2018)*

Meditation Hall by Hil Architects is situated within the residential community of Huanghua, China and is placed adjacent to a natural wetland, becoming a design motif for the project. Although a highway is situated in-between the natural wetlands and the commercial street, this created interest for the architects as it became a significant motive behind the construction of the space. The design brief consisted of an intention to transform the existing retail spaces into spaces that would provide the local community with a relaxing retreat away from the contrasting busy commercial street. In response to the wetlands, the meditation and yoga centre was to provide zen meditation classes, yoga and related activities to calm residents and distract them from their surroundings.



A-01 Ground Floor Plan 1:100

*Floor plan (HIL Architects, 2018)*



C-01 Section 1-1 1:50

*Section Main Meditation Hall (HIL Architects, 2018)*

## Precedent: Meditation Hall by HIL Architects



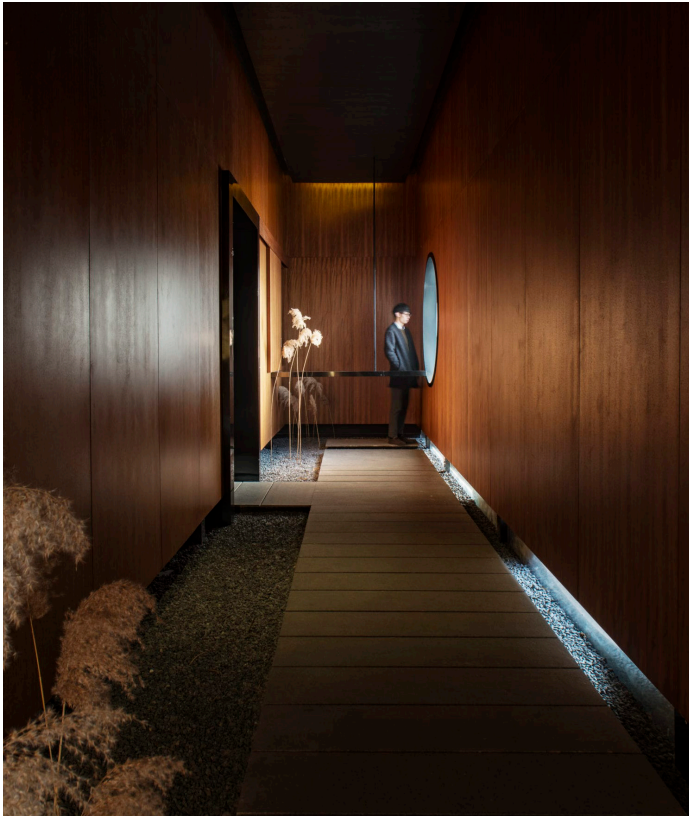
*Main Meditation Hall (HIL Architects, 2018)*

The structural layout of the space is defined by a series of linear concrete columns and beams positioned along a central axis, which were left from the original construction of the space. The position of these load-bearing columns determine the composition of the interior spaces. These individual spaces then form a continuous communal hallway that acts as both a public space as well as a pathway that lead around private rooms, bathrooms and dressing rooms. Each individual area is also defined by its scale and spatial quality. As an individual progresses from the entrance deeper into the space, the lighting gradually dims as a means of inducing a more meditative mental state before reaching the main meditation hall. The water hallway forms as part of the communal path, situating itself parallel to the meditation hall and providing a depiction of a 'wetland' with a featured water garden and raised platform walkway. Vertical timber louvres placed along the water garden softly diffuse the filtered natural light, which then reflect onto the water and into the meditation hall. This forms an imitation of the wetlands and outdoor atmosphere.

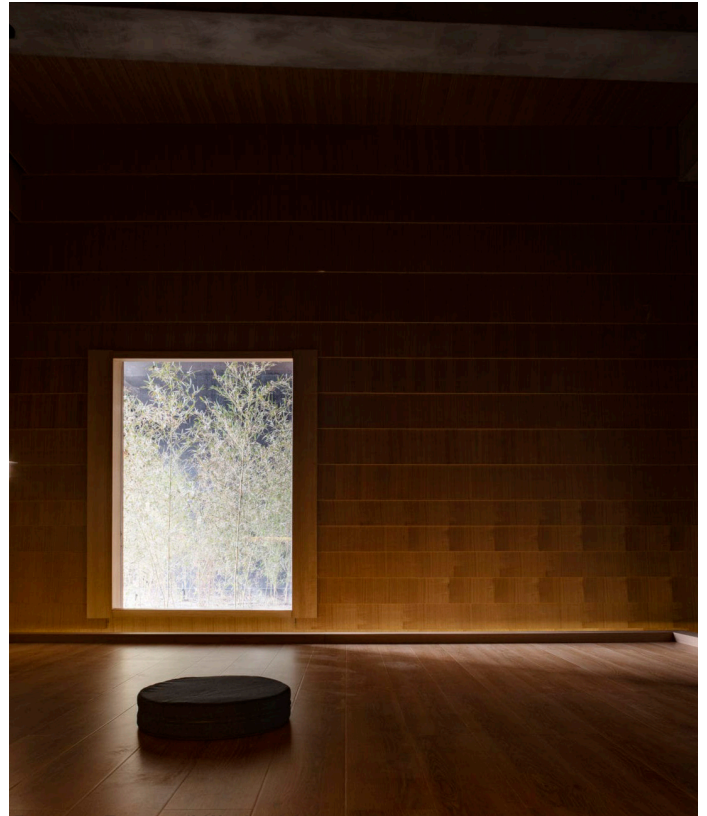
The main meditation hall and private classrooms are enclosed by double-skinned facades that act as a cavity structure. This allows for air flow within the cavity in addition to the sectioning of the individual rooms. Inclined inner facades constructed from suspended timber louvres continue to enhance the perceived expansiveness of the space created by the columns and beams. Natural elements of pebbles, wood and plant beds create a textural contrast to the existing steel structure and assist in enhancing the natural calming atmosphere. With the aspect of expansive areas and high ceilings the space provides a tranquil atmosphere similar to that of a temple or shrine.



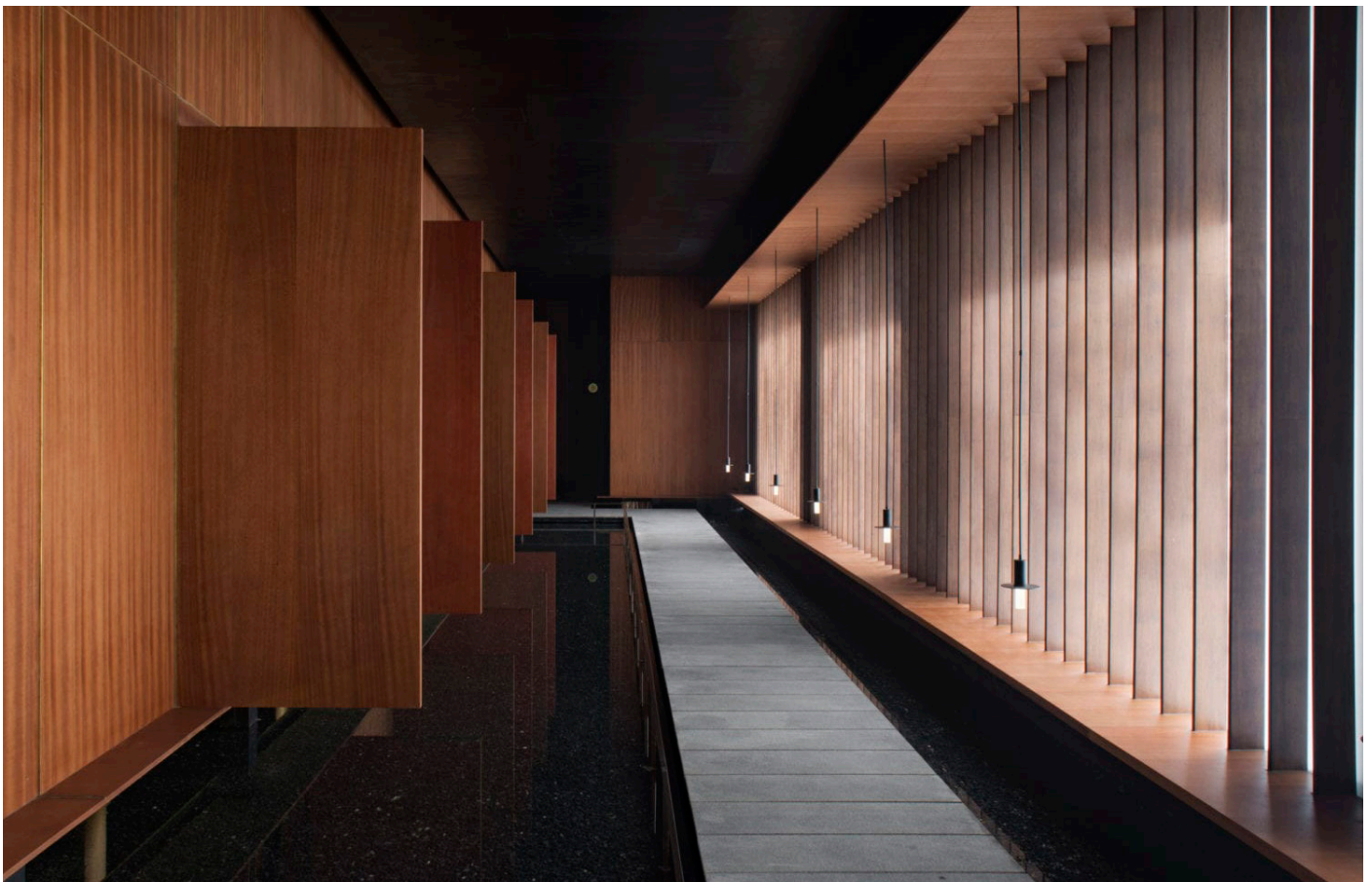
## Precedent: Meditation Hall by HIL Architects



*Entrance (HIL Architects, 2018)*



*Private Room (HIL Architects, 2018)*



*Water Hallway (HIL Architects, 2018)*



# Precedent: Elements of Byron Resort

## Overview

Architects: Shane Thompson Architects  
Location: Byron Bay, NSW, Australia  
Year: 2016



*Aerial view of the Elements of Byron Resort, Dallas Nock.*

The Elements of Byron is a resort spa for adults and children located in Byron Bay that facilitates the reconnection to the self, to nature, and to friends and family through its many facilities including:

- multiple pools
- spas and lounges
- recreational activity areas (tennis, playgrounds, horse ranches)
- forest walking trails
- access to the secluded Belongil Beach
- 94 villas to stay in

There are numerous spa experiences available to resort guests and the public which are tailored to each guest in order to help relax, rejuvenate the mind, and revitalise the body. It is important to note that the resort facilitates both adults and children and offers a range of activities for all age groups. There are also adult-only spaces, as well as activities centres around school holidays for children.

## Design

The design of this space is extracted from its' rich contextual landscape: a critically- endangered rainforest, ancient Mount Warning, and the beach front. The main facilities and all its' villas take their shape from natural forms, mainly inspired by sand dunes, trees, and bodies of water, as well as the culturally and historically significant Australian fibro beach shack. The organic form of the central facilities as seen above is to mimic the surroundings for a near seamless transition/blend between artificial landscape and the natural occurring landscape.



*Some of 94 guest villas within the resort, Dallas Nock.*



*Osprey Spa interior, Dallas Nock.*

wwWith the facilities loosely spaced out, alluding to studies of Indigenous South Pacific villages, the guests are able to easily navigate the many facilities, and still communicate a sense of community.

The design of the building is set to minimise future maintenance and has a 10% building footprint. The villas are built raised on a timber framework and fibre cement sheets which allows for the inobstruction of land, as the construction of the landscape brought forth over 65,000 new native flora.



## 1B: USER RESEARCH For Newtown Tramsheds Wellness Centre

### Precedent: *Amangiri*, Utah, USA

Project name: Amangiri

Designer: Marwan Al-Sayed, Wendell Burnette and Rick Joy.

Typology: Luxury Resort & Spa

Location: Navajo desert land. Canyon Point, Utah, USA.

Year: 2009-

Size: 34 room, 600+ Acre



1

Amangiri is one of Aman Resorts International's 34 uniquely designed and situated luxury hotel destinations, that span 21 countries.

The masterpiece was designed collaboratively by Marwan Al-Sayed, Wendell Burnette and Rick Joy, and clearly inspired by the nature surrounds.

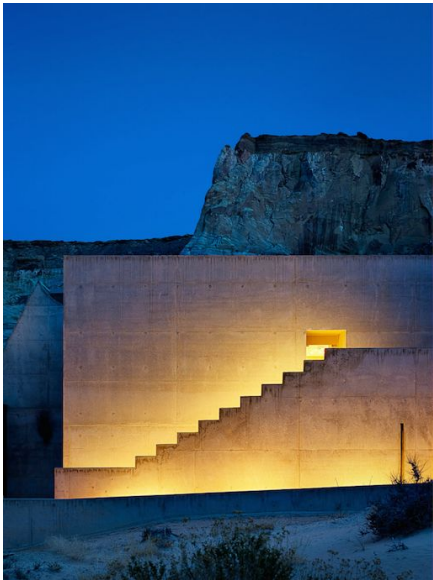
They were brought together to work on the project by one of the current owners of Amangiri and then managing partner in development of the lands, Bernt Kuhlmann, working for Adrian Zecha and his team at Aman Resorts.

Situated on a 600+ acre site of untouched scenery, Navajo desert land, Amangiri neighbours the largest Native American reservation in the US. This immense view gives visitors much to take in. The structure avoids appearing vulnerably over exposed however, by tucking into a large rock face and using materials and elements that camouflage it, reflecting back the surroundings, with a harsh expansive beauty.

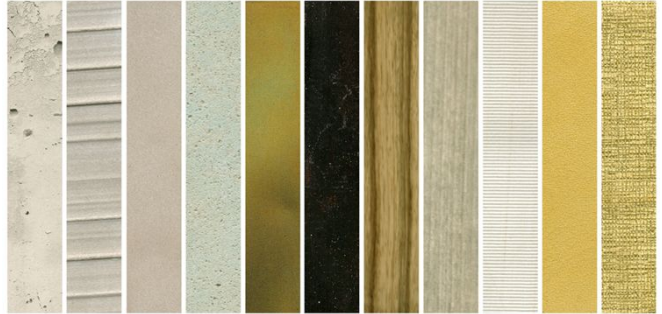
The large pool of water plays a crucial role in the design, mirroring the skyscape, complimenting the orange earth tones with clear blue, and providing a fresh contrast to the dry desert setting.

This understated minimal aesthetic allows the elements of light and shadow particularly, to take centre stage, and possibly enhances guests perception through other senses, often neglected in dominating urban settings.

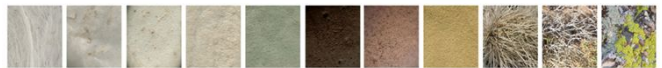
The space is curated to insight daily activities in a new and illuminating light, with communal spaces such as the Library with books and couches, the Desert Lounge with beds and open sky views to watch the stars, and the Dining rooms. Privacy is clearly valued with suits boasting individual plunge pools and sky terraces that accomodate for a seamless day to night transition. In addition the visitors can enjoy numerous activities from guided walks, horse riding, yoga, sauna and spa treatments.







material



site

# Precedent: Caring Canines Visiting Therapy Dogs, Inc.

Boston, Mass.  
Est. 2001

Caring Canines Visiting Therapy Dogs, Inc. is a non-profit organisation operating out of Massachusetts and have been operating since 2001. They consist of 100 volunteer dog and handler teams and service 60 different facilities on a regular basis.



Comfort Caring Canines (2018)  
*Comfort Caring Canines Therapy Dogs visiting Temple University Hospital*

The types of facilities that are serviced by this organisation are

- Nursing Homes
- Assisted Living Facilities
- Hospitals
- Schools
- Residential Programs

An example of the successful employment of this organisation's services is through the provision of Cooper the service dog, for the Harvard Medical School Countway Library. Cooper is a registered therapy dog that was available to students, staff and faculty that needed a moment of relaxation and distress. Cooper's services would be booked out like any other library service, which would permit patrons to spend 30 minutes with him. Cooper's space was a small fenced off area that was populated with a comfortable couch, a chair, a water dish and an assortment of toys. Those using the service would be able to hold Cooper, pet him, play with him, talk to him, or even cry with, if so needed.

The role of this organisation is to provide therapy through safe and controlled interactions with trained dogs, coupled with well equipped canine handlers. Through play time with the dogs, it is the aim of the organisation to provide spaces of play, reduce stress levels of patients, and offer opportunities to be care-free and relaxed. There is also a tactile aspect of the sensorial experience, in which enjoyment can be derived from.

This service is provided free of charge, and volunteers travel to the patients in most circumstances. Because of this, the spatial dynamics of the therapy are fluid, often occurring in homes and living spaces where the patients are already at their most comfortable.



The Harvard Crimson (2011)  
*Cooper*



# Precedent: Santini Wellness Resort & Spa, Kandy, Sri Lanka

Thisara Thanapathy Associates 2016



*Villas built on undulating terrains overlooking the environment.*

Situated above the terrains of Kandy, Sri Lanka, Santani was designed as a refuge distant from the commercialist lifestyle adapted by the modern individual. Comprised of four sections, an entrance pavilion, spa, lounge/restaurant and sixteen single villas, Santani is dedicated to rejuvenating the mind and body, realising that “sustainable wellness begins by bringing oneself into balance with nature and by allowing ourselves to receive nature from ourselves as well as others” (Santani, 2019) through Ayurveda (Hindu system of medicine), detox, yoga and spa.



*Spa with clean cut structures seamlessly blending into nature.*

Santani embraces the melodious balance between nature and architecture, designing a space that understood human wellbeing: “individuals heal and thrive most effectively where nature meets sustainable design.” (Santani, 2019). The architecture of thin steel structures and salvaged timber seamlessly blurs the threshold between built forms and nature, allowing for a harmonious spatial experience from exterior to interior. Its build, 2,800 feet above sea level, has allowed for an air-condition free space – each room introduces natural ventilation that not only benefits the individual but also the environment, saving over 70% of energy in comparison to a commercial hotel. The simplicity of its form dissipates into the landscape, mastering the tranquility of its surroundings and allowing nature to take its course. Its infrastructure intelligently incorporated rhythmic movement through thresholds and materiality with a deliberate motif of minimalism, minimising external simulation in order for individuals to solely focus on their spiritual being. Views framed through architecture, playing with natural elements of light and wind create a multi-sensory experience in a design that embraces its natural surroundings, cleansing the mind and body with serenity.





*Stairway framing and blending nature and architecture.*



*Stairway framing and integrating nature and structure.*



*Entrance to the spa that frames and integrates nature to architecture.*



# Precedent: NANAM RETREAT PURE SPA

MIA DESIGN STUDIO

Principal Architect: Nguyen Hoang Manh

Project Year: 2015

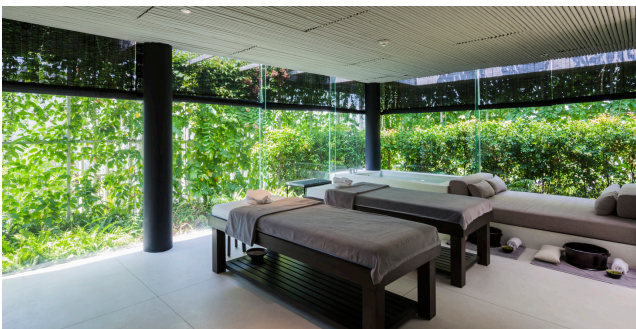
Location: Da Nang, Vietnam

Total Floor Area: 2,250sqm

Located in Da Nang, Vietnam, the five-star facility, Nanam Retreat Pure Spa depicts itself as an “oasis of tranquility”. Launched in 2015, the spa consists of fifteen treatment rooms that are immersed in open air gardens, a deep soak bath and day beds for pairs. Furthermore, the Nanam Retreat Pure Spa also comprises of a health club with gym, yoga and meditation sessions that are held in the open garden lounge.

“[Nanam Retreat] Pure Spa envelops you in a healing and tranquil cocoon. Enjoy treatments ranging from our signature Naman massage to shiatsu, and be pampered with our unique body wraps, pedicures, or create your own indulgence.”

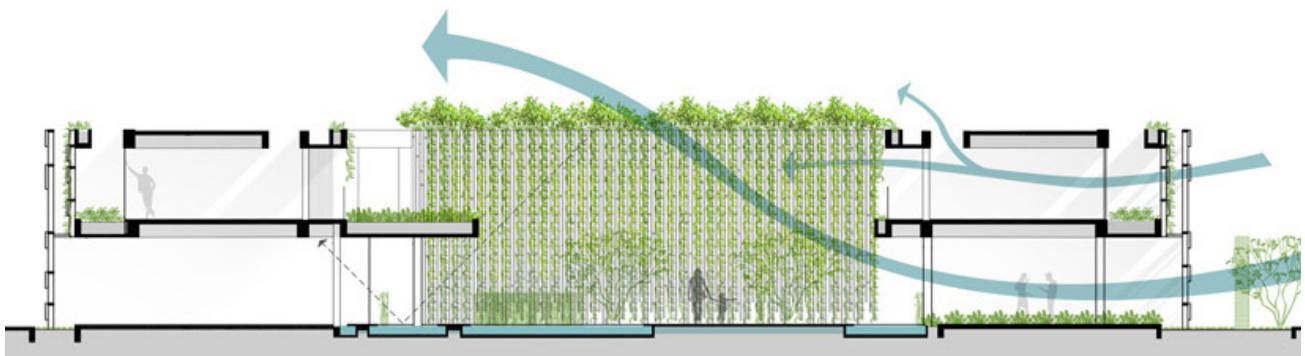
The architecture of this spa is incredibly intriguing as it consists of no walls but is immersive garden space, both internally and externally, as it is draped in hanging plants, vertical gardens and green walls. The utilisation of greenery has created a seamless transition between each interior space. MIA Design Studio states, “With use of local plants, each retreat becomes a healing environment where the guest can enjoy a luxurious wellness in privacy.”



*spa treatment room*



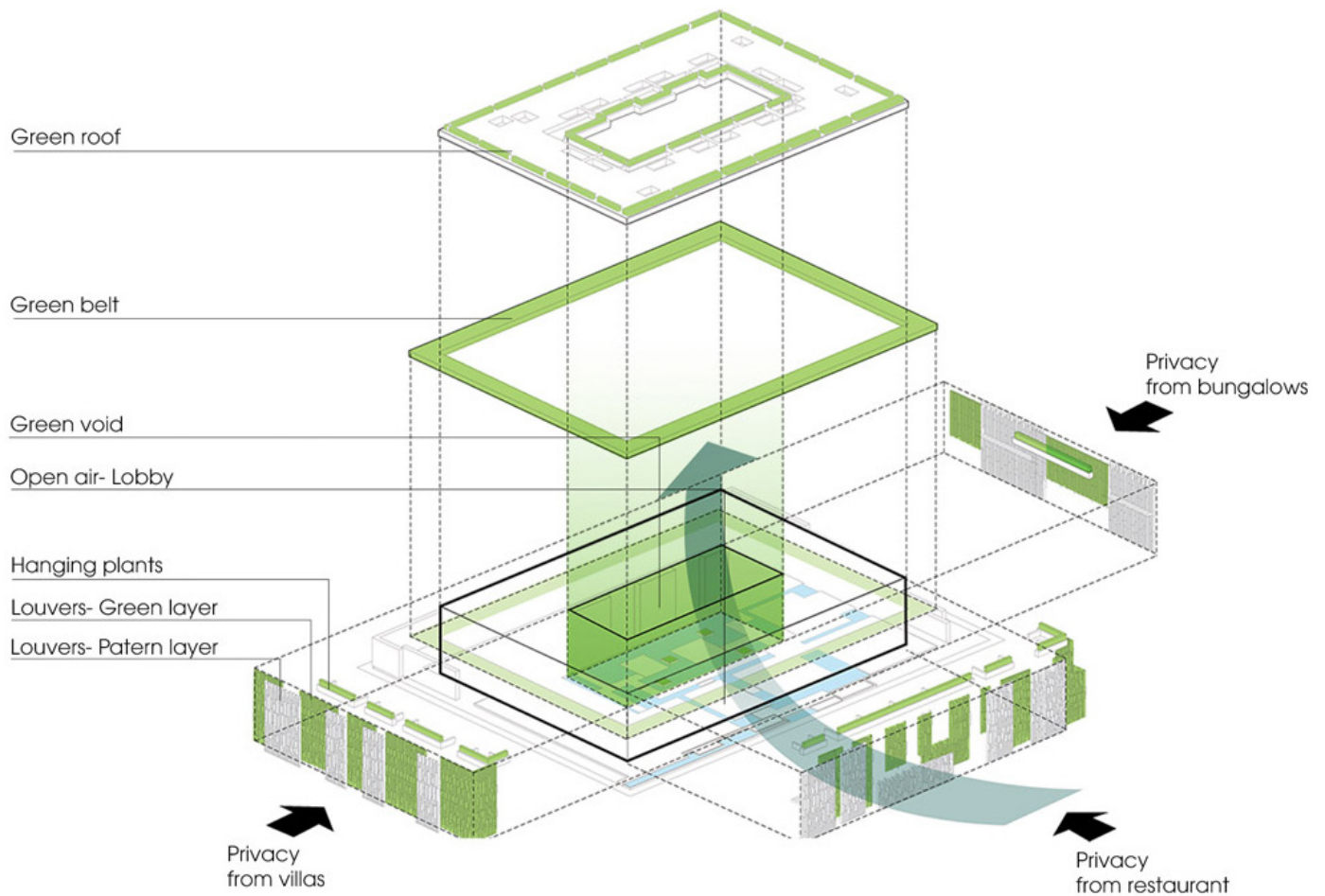
*corridor between spa rooms*



*section of Nanam Retreat Pure Spa*



# Precedent: NANAM RETREAT PURE SPA



*exploded axonometric diagram of Nanam Retreat Pure Spa*



*exterior of Nanam Retreat Pure Spa covered in greenery*



*the entirety of the building is draped in plants*



# Precedent: EUPHORIA RETREAT

## A Holistic Wellbeing Destination Spa, Mystras, GREECE

Built into the mountain side with the dense, deep green forest of Mt Teygetus as its backdrop, exists the wellbeing Spa - Euphoria Retreat. A wellbeing destination spa in the mythical Greek Peloponnese, Euphoria Retreat offers a unique healing environment, with treatments and therapies that blend ancient Hellenic and Chinese philosophies and practices. Each of its four levels guides your transformative journey through the retreats 5 key elements; the Euphoria spa, personalised wellbeing programs; with treatments customised to address all your emotional and physical needs, luxury comfort accommodation, nutrition and the process of *healing the inseparable whole*.

*“By restoring physical, emotional and spiritual balance, you will be guided towards the state of “euphoria”, as it was known in Ancient Greece, and embrace life’s full potential.”*



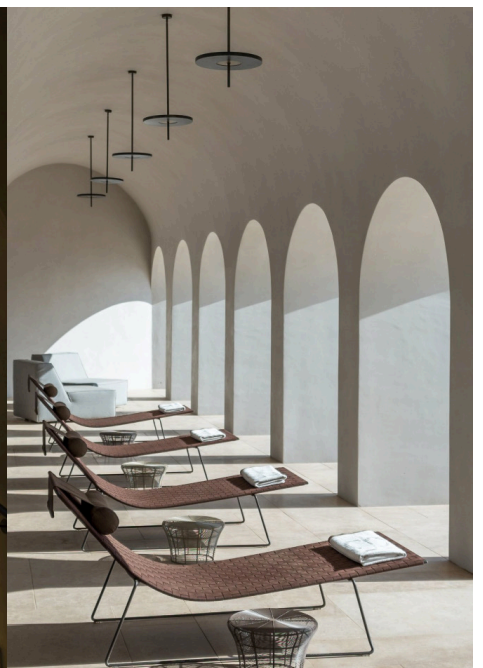
Euphoria Retreat, Mystras Greece



Lobby Area



Stairway to upper level



Pool Relaxation Area





*Sphere pool*



*Waterwell Kneipp Therapy*



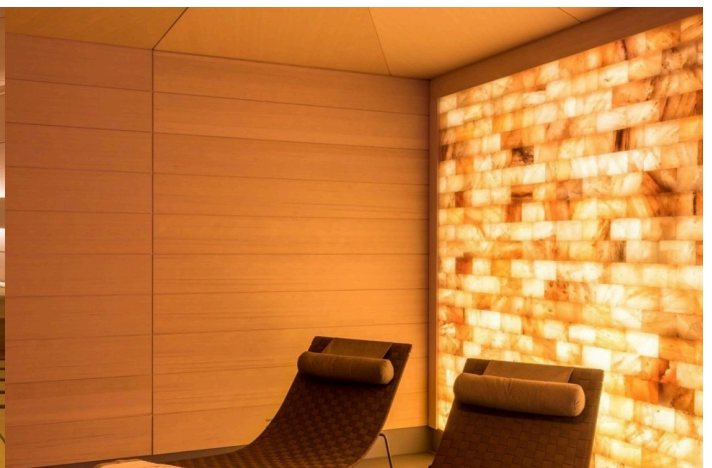
*Tepidarium*



*Byzantine Hamman*



*Finnish Sauna*



*Speleotherapy-Salt Room*



# Precedent: THE SHELTER, DOUBLE BAY

Designer: Anna Trefley, Esoteriko

Founder: Ben Mills

Location: Double Bay, Sydney, Australia

Year: 2018



*Courtyard / juicery*



*Entrance*

The Shelter Double Bay is a wellness space which “inspires a healthier community by connecting people... To workout. To recover. To relax. To restore.”

Tucked within a treelined street in Sydney’ Double Bay, the wellness centre aims to combine the elements of a health club, gym and spa, to create a unique wellness experience. Programmes include spin and high-intensity interval workout classes. Visitors to the wellness centre also have access to traditional and infrared saunas, ice baths and an in-house cafe and juice bar.

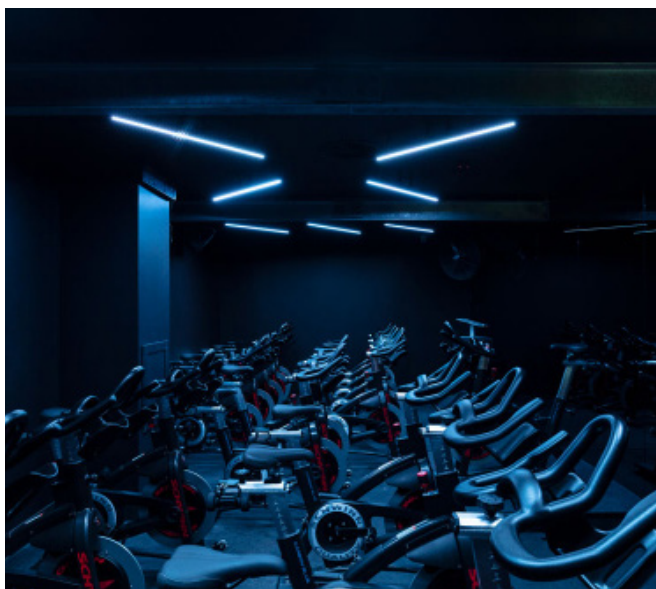
With a focus on rhythm and music, high-intensity Ride classes are created to push boundaries. However, the soothing and minimal interior of Shelter appears more like a retreat than a regular gym. The centre is a 1920s house restored to inject brightness, organic Australian references and including a soothing natural colour palette, working alongside a wood fire heater, warm timber and courtyard to create an open and calming space where one can relax after their workout.

As the design combines distinct yet interrelated programmes associated with ‘wellness’ within the one centre, the design approach involves a simple organisation of space and minimal palette of material to keep the space light and open, while enhancing the unique semi-industrial warehouse and terrace space. The sense of openness is enhanced by minimum necessary insertions to programmes to make most of the scale, space and beautiful natural light that invites and comforts its users whilst maintaining appropriate levels of privacy where necessary.

The space seeks to resonate with all senses with a focus on texture, sound and light throughout.

A focus of The Shelter is mental health, as by definition it is a place of refuge, it is a place that community can come and “feel safe.”





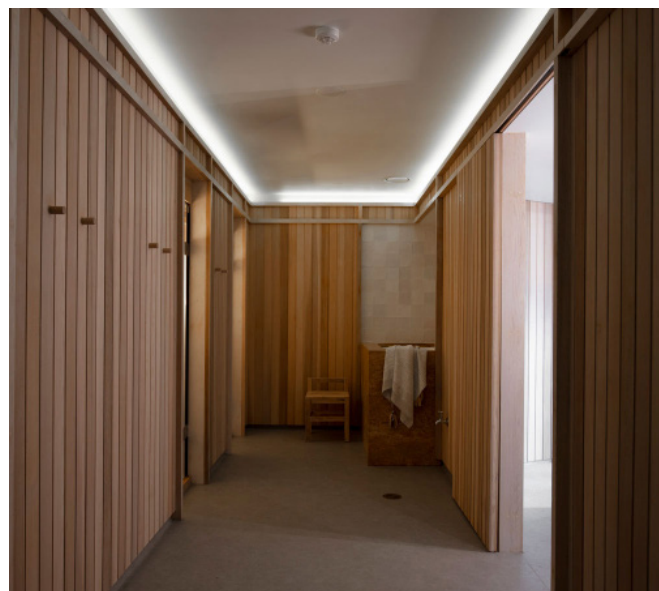
*Ride class*



*Changeroom*



*Fire room*



*Ice bath*

# Research





# Research: Massage

## Effects of message therapy

Massage for therapy dates back thousands of years ago, evident in China during the second century B.C. followed by India and Egypt. Progressively it became less associated with scientific and medicinal qualities with the rise of pharmaceuticals. However, through examining Watson (1997), Smith et al. (1999) and Field (1998), insights into the beneficial outcomes of massage therapy elevate the relevance of its use in a contemporary setting which demonstrates how it could improve patients in addition to people in good health; by improving and maintaining wellbeing.

Massaging is aligned with the sense of touch which acts as a form of communication through fostering intimacy and detailing a particular interaction. Touch is vital in both social and psychological wellbeing and can also play part in other roles in life such as growth. For example, in a comparative study, preterm infants that were in neonatal intensive care were given short massages 3 times daily for 10 days and gained 47% more weight than those that weren't given massages.

When considering the interaction of a patient and nurse during massage therapy (a form of touch), there is a demonstration of care and acceptance, a closeness produced with the increased time dedicated towards the patient. This often results in a sense of relaxation, decreased stress and better sleep (with repetitive sessions and once the physical uncomfot of touching/massaging diminishes). There are several other benefits that have been recorded from patients who have received massage therapy (Fig.1) which include pain relief, decrease in muscle tension and anxiety, body awareness, improved physical functioning, increased healing rate and feeling more psychologically supported. In several cases this meant that there were reduced hospital stay times, less distribution of pain killers and in turn reduced expenses.

Despite these numerous advantages, massage therapy has not been thoroughly investigated consistently and results are mostly qualitative and subjective therefore there is yet to be widespread use in hospitals as a form of treatment. There is also the stigma of massaging to sexual connotations, which is misleading if massage therapy was approached professionally and properly. Massaging can be taught and can significantly improve the wellbeing of stress-related ailments. Though consideration must be on the pressure applied and adapted to each person as this can cause negative effects if undertaken inappropriately.

TABLE 1 Patients' perceptions of their responses to massage therapy (n=70)

Positive changes that were attributed by patient to massage therapy in following areas:	Yes %	No %	Don't know %	No response %
Appetite	21	66	10	3
Elimination	23	60	13	4
Ability to move around	80	16	0	4
Energy level	79	14	3	4
Relaxation	98	0	0	2
Sense of well-being	93	1	1	5
Participation in treatment or care	73	13	4	10
More talkative	31	59	4	6
Increased motivation	63	23	7	7
Faster rate of recovery	71	9	14	6
Positive mood change	88	7	1	4

Fig.1

## Research: FLOATATION THERAPY

Flotation is a sensory deprivation healing treatment for your physical body, mental and emotional health and spiritual growth. Studies performed in the United States and Sweden indicate that flotation therapy delivers wide-ranging benefits from stress to chronic pain, all while lowering blood pressure and improving skin. Flotation Therapy is used for neurological, circulatory, respiratory, digestive, muscular, skeletal, and hormonal balance bringing the body back into homeostasis.

### Conditions Treated

Stress relief, Muscular pain, Rheumatism, Chronic pain, Fatigue, High blood pressure, Migraines, Anxiety, Insomnia, Back pain, Depression.

### General Well-Being

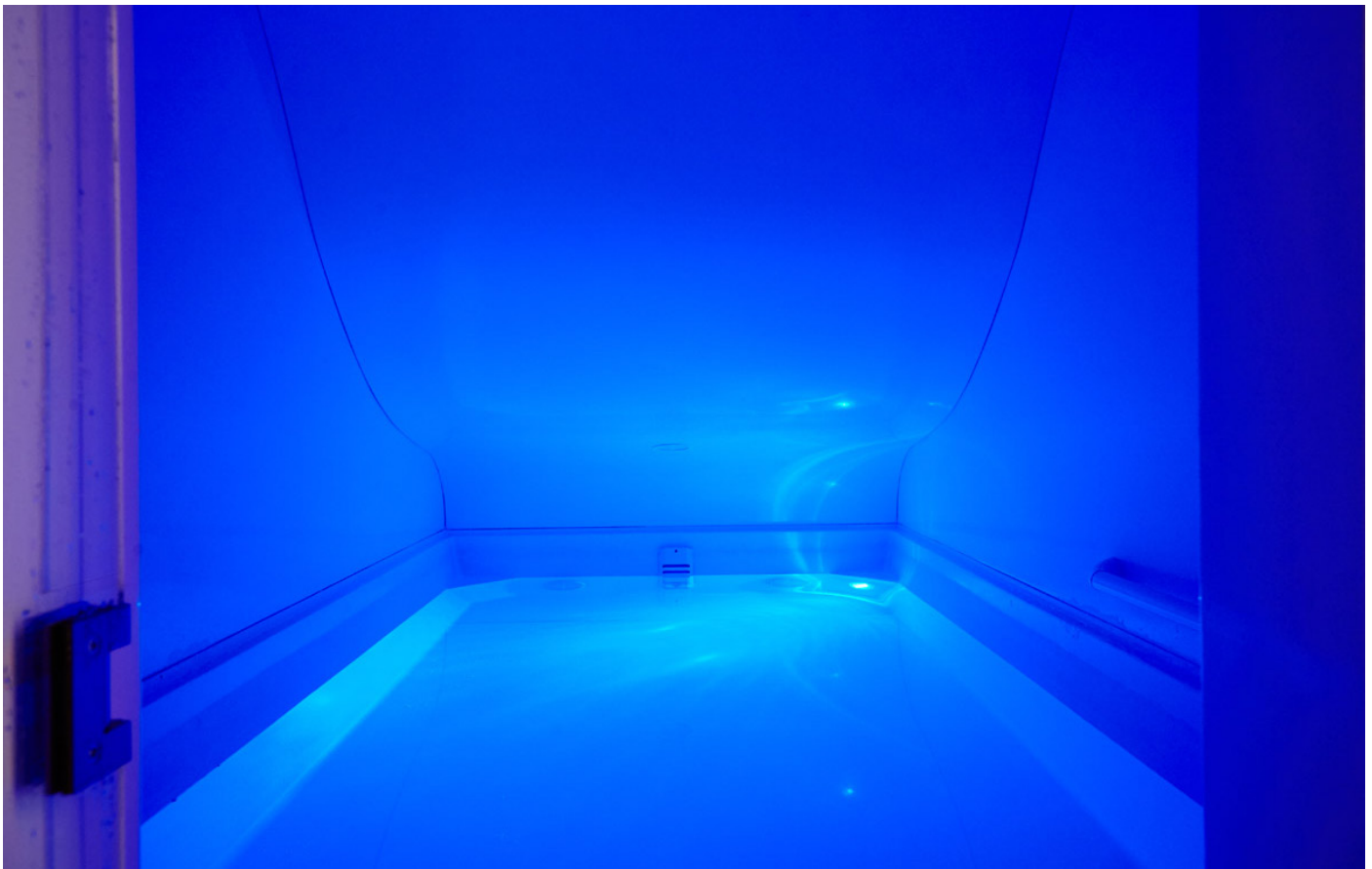
Promotes total calm and peaceful relaxation, Eliminates fatigue and jet lag, Improves sleep, Alleviates stress (mental and physical), Energizes, rejuvenates and revitalizes, Increases motivation, diminishes depression, anxiety and fear, Facilitates freedom from habits, phobias and addictions

### Mental Benefits

Stimulates left/right brain synchronization, Shifts brain waves from beta to lower frequency alpha, theta and delta, Deepens meditation, Expands awareness, Enhances hypnotherapy and self-hypnosis

### Physical Benefits

Decreases the production of cortisol, ACTH, lactic acid and adrenaline, Increases production of endorphins, Speeds up rehabilitation and recovery, Relieves pain (arthritis, migraines, injuries and so on), Reduces blood pressure.



© Flotation Room. Floating Lotus, 2019.



# Research: Sensory Deprivation

## FLOATATION REST



*Fig 1: Sensory deprivation as explored on 'Stranger Things'*

Research into sensory deprivation began in the 1950's as an investigation into psychology and mental health through the perspective of a tactical device in war. Following World War II, there was an interest into "brainwashing", which led to more and more research into the mental health during experiments such as cognitive tests or memory tasks. A symposium in Harvard in the late 60's united medical doctors, health professionals, and researcher to converse in this field and many concluded that our sense could be seen to be heightened when stimulation is reduced.

After decades of ground-breaking research, sensory deprivation has been recognised as a method of treatment for illness and disorders, particularly stress related incidences such as depression, anxiety and insomnia. There has been a large amount of sensory deprivation techniques with ranging success, yet the technique that has had the most positive emotional, cognitive, and neuropsychological effects in several studies is REST, or Restricted Environmental Stimulation Therapy. Flotation REST has been popularised as an easy, accessible and affordable technique of sensory deprivation.

Flotation rest was popularised by John C. Lilly M.D when he developed as immersion and flotation system in which a person floats in a light free, sound reduced chamber in a highly concentrated solution of Epsom Salt and water at a controlled temperature. This method is used within modern day techniques and applied within several experimentations to test the effects of Flotation REST.

Experimentation 1: Thomas H. Fine and Joseph Turner, M.A. Medical College of Ohio (1989)  
This experiment was to investigate the psychophysiological effects of brief sessions of Flotation REST, with 30-40 minute sessions repeated every third day. To tackle the subjective nature of the REST experience, Fine and Turner utilised several indicators of subjective reporting, including the Spielberger state anxiety scale, Zuckerman multiple affect adjective list, profile of moods and a subjective rating scale of emotion and relaxation. They tested in consideration to several different factors and concluded with positive results. Some included the fact that there a significant reduction in pain and far more relief from anxiety and stress than any other modality. Patients also reported improvements of sleep, mental concentration and ability to cope with stress.

Experimentation 2: Anette Kjellgren and Jessica Westman, Karlstad University (2014)  
This study was to evaluate the effects in healthy participants after receiving a series of flotation tank treatment. Sixty-five participants were randomised to either a wait-list control group or a flotation tank treatment group where they participated in a seven weeks flotation program with a total of twelve flotation sessions. Before and after each session, they were given a questionnaire measuring psychological and physiological variables such as stress and energy, depression and anxiety, optimism, pain, stress, sleep quality, mindfulness, and degree of altered states of consciousness were used. Instruments used to measure results included a scale of stress and energy, the Hospital anxiety Depression scale, a sleep quality questionnaire and a visual analog scale for measuring worst and normal pain. In the results, stress, depression, anxiety, and worst pain were significantly decreased and optimism and sleep quality significantly increased for the flotation-REST group. The control group had no significant results in comparison.



# Research: Wellness, Greenery and Public Spaces

In the last two decades there has been an increased focus on literary research interested in exploring the impact of green spaces on mental wellbeing and depression, and the measurement of positive mental health and its contribution to all aspects of human life. To give an overview of this topic and to explore its potential on planning and design I have chose to focus on three papers that primarily explore the direct link to nature and public green spaces and positive mental health, Beute, Kort 2013, Mennis, Mason and Ambrus 2018 and Wood, Hooper, Foster and Bull 2017.

The world health organisation defines positive mental health as the ‘foundation for well-being and effective functioning for both the individual and the community’, defining it as a state ‘which allows individuals to realise their abilities, cope with the normal stresses of life, work productively and fruitfully, and make a contribution to their community’ (Wood, Hooper, Foster and Bull 2017). The World Health Organisation also states that finding ways to combat depression as a top priority (Beute, Kort 2013) and that while existing therapies, pharmaceutical interventions and cognitive behavioural therapy should continue to be used it has been suggested that the exploration of smaller every day interventions, such as exposure to restorative environments such as nature and daylight, could compliment the healing process and possibly work towards the prevention of mental illness in our communities (Beute, Kort 2013).

Nature and daylight have been found to positively influence our mental health in different ways and by using different systems (Beute, Kort 2013). The benefits of natural environments and green spaces have been proposed to run through both affective (emotional) and cognitive (thinking, processing and problem solving) pathways and benefit us by reducing stress levels, improving mood, creating better task performance and self-regulatory skills and faster and/or better physiological recovery after street or mental fatigue (Beute, Kort 2013). It has been suggested that the amount of restorative influence nature has on people is by how much they are in a state of cognitive or emotional fatigue with the result being higher for those that are deficit in these areas and are in need of restoration (Beute, Kort 2013).

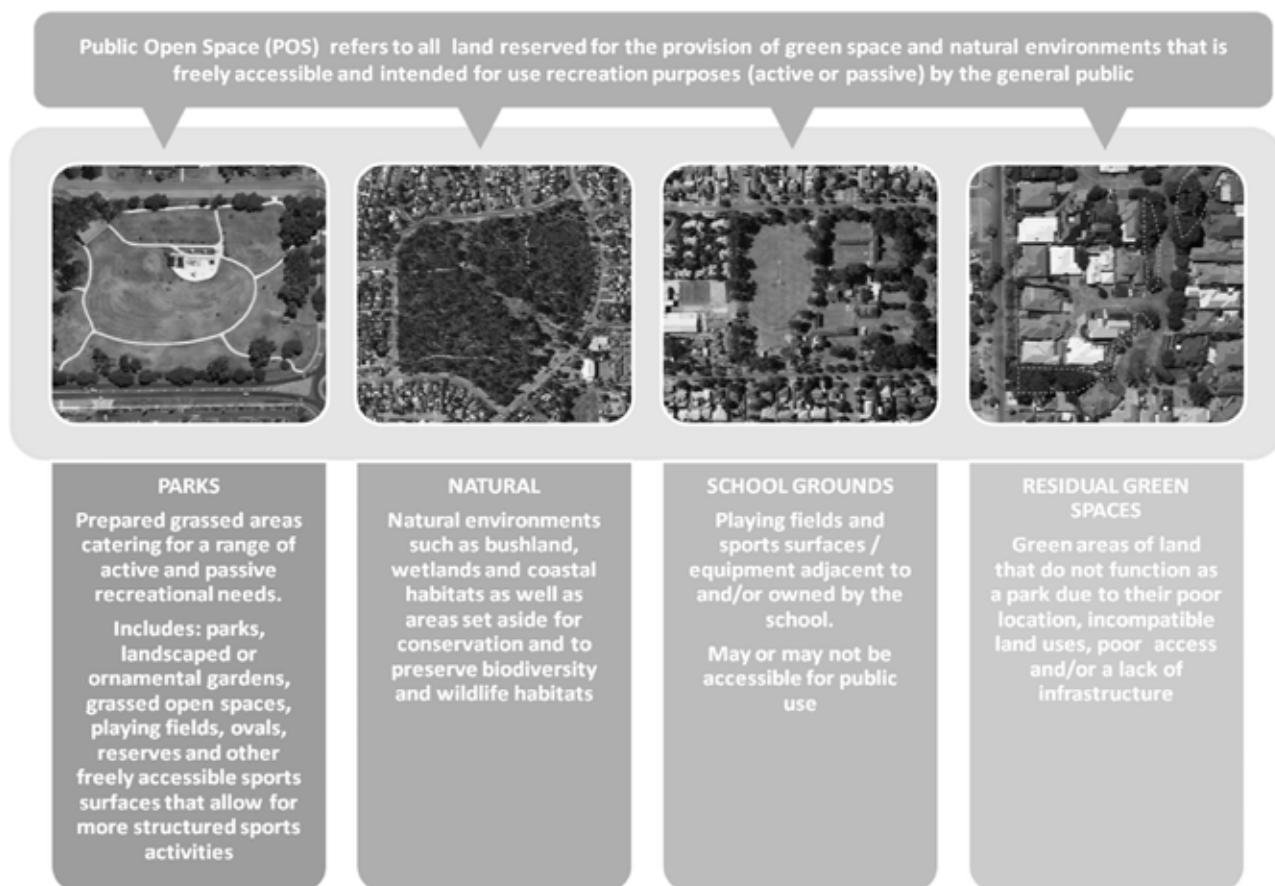


Fig. 1. Public Green Space definition and type classifications (Wood, Hooper, Foster and Bull 2017).



*Fig. 2. Examples of areas with low greenspace exposure (left images) and high greenspace exposure (right images). (Mennis, Mason and Ambrus 2018)*

Primarily studies on nature and wellbeing have been focused on the link between green spaces and physical activity on mental health rather than the impact to mental health directly however there have been a few recent studies that have been aimed at specifically analysing the association of public open spaces (POS). Public Open Space is defined as all land reserved for the provision of green spaces and natural environment that is freely accessible and intended for use recreational purposes (both active and passive) by the general public' (See Fig 1, Wood, Hooper, Foster and Bull 2017).

These found effects are the restorative benefits of contact with nature, stress reduction and the role of parks as a setting that facilitates social interaction and development of social ties (Wood, Hooper, Foster and Bull 2017). Other proposed theories that link greenspace directly with psychological stress reduction concerns the evolution of humans in natural environments before settling and urbanisation and are genetically predisposed to respond favourably towards greenspace or landscape configuration which were necessary for survival as well as theories concerning cognitive attention restoration where cognitive effort in acute urban areas may cause fatigue from an abundance of visual and auditory stimulation and movement (Mennis, Mason and Ambrus, 2018).

It could be argued that the quality of public green spaces has shown to have more of an impact on positive mental health and lower levels of psychological distress over the quantity of these spaces in an urban environment (Wood, Hooper, Foster and Bull 2017) and in urban areas these are made up of a diverse range of green spaces such as parks, natural environments including bushlands, wetlands and coastal habitats, school grounds and sporting ovals and residual green spaces or areas of land that do not function as a park due to poor location, accessibility, or infrastructure.

However in other studies (Mennis, Mason and Ambrus 2018) there is considerable evidence that the quantitative value of total public green spaces that are in an urban area that can be seen, passed through or actively used all contributed to overall positive mental health (See Fig 2, Mennis, Mason and Ambrus 2018). Mennis, Mason and Ambrus concluded that both the number of parks near peoples homes and the total spatial area of accessible parks mattered to lowering stress and that additionally the association with positive mental health was found across parks of varying sizes and that these affects were not limited to parks predominately featuring natural landscapes but extended across spaces with a recreational or sporting programme (2018).

Mennis, Mason and Ambrus (2018) and Wood, Hooper, Foster and Bull (2017) studies both show that when planning for communities in urban areas both the overall percentage of land use directed for public green space and the quality of infrastructure, location, access and usability in these public green spaces needs to be carefully considered to maximise the potential mental health benefit of these spaces.



# Research: Circadian Rhythm

## What is circadian rhythm?

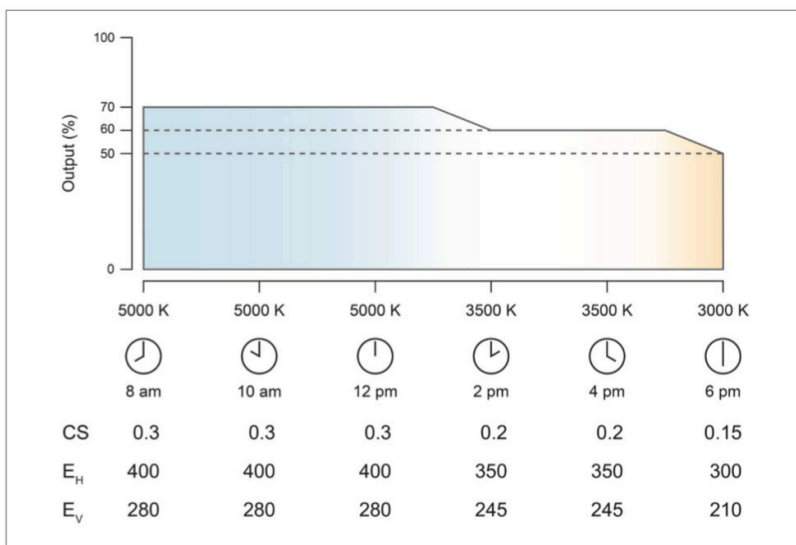
Circadian rhythm is essentially the 24-hour internal clock that runs in the background of your brain. It cycles and determines between sleepiness and alertness. As patterns of light and dark reach the back of the eyes, they are converted into neural signals that synchronise the body's 'biological clock' with the local time on Earth. The hypothalamus portion of your brain controls this rhythm, however outside factors like lightness and darkness can also effect this. Therefore, as your circadian rhythm is determined by the amount of light being picked up by the eyes, daytime and nighttime is very important in determining your energy levels.

## How does circadian rhythm impact wellbeing?

The circadian rhythm within humans determine the way your body functions in numerous ways including sleep-wake cycles, hormone release, eating habits and digestion and body temperature. A particular hormone that your body's circadian rhythm determines is melatonin - the hormone that tells your brain that you're tired. The less light that is taken in by the eyes and communicated to the brain into neural signals, the more melatonin the brain makes resulting in drowsiness. Thus a synchronised circadian rhythm is important to maintain in order for it's energy levels to be high and low at the right times. Otherwise an unsynchronised circadian rhythm may result in drowsiness at times where work needs to be done or energy levels need to be high. This imbalance also effects your mental state and is the cause of most mood swings. Unsynchronised circadian rhythms have also been discovered to put people at higher risks for cardiovascular disease, diabetes and other forms of cancer.



Example of tuned luminaires in a work space that deliver extra CS to a space's occupants (LRC, 2016)



Example of tuneable luminaires programmed to deliver customised CS dosage schedules (LRC, 2016)

## How can circadian rhythm be measured?

Circadian rhythm can be determined by measuring serum levels of melatonin, core body temperature or activity of clock genes or studying sleeping patterns through the recording of a sleep diary. Although CR can be measured through these means, it doesn't necessarily play much of a role in improving CR performance. The majority of people in society find themselves on a daily basis in spaces illuminated by artificial lighting, ie. offices. As the eye takes in daylight to effect CR, it also takes in artificial light, but unlike daylight which has a finite illumination, artificial light tends to illuminate spaces at much longer rate. In light of this, the Lighting Research Center has developed a metric system in measuring the amount of CS (circadian stimulus) that lighting fixtures within buildings produce. Using the factors of light level, spectrum (colour) and duration of exposure, the metric system is able to determine a tuned lighting system that would maintain a healthy and synchronised CR for its inhabitants.

# Research: The Roles of Psychedelics and Rave Culture in Wellness

## The Necessity of Rave Culture in Contemporary Society

There has been a current and growing obsession with the concept of 'Wellbeing' in today's society with more and more people seeking out improvements to their current lifestyle. But there is difficulty in defining the term, most researchers have come to understand wellbeing to be a multi-faceted construct that includes the hedonic definition, which accentuates the concepts of the positive effects with low negative effects, happiness and the satisfaction of living, and the eudaimonic, the importance of positive psychological functions and human development, as components of a whole rather than separate entities.

Understanding that well-being is a subjective construct or state of equilibrium where both mental and physical aspects of life are deemed satisfactory, the importance of club culture within the contemporary context of society is necessary as it can and does help to facilitate both mental and physical wellbeing of ravers, the youths of modern society.



*Fig 1. A rave during New Years Eve - Derek Gaines*

Within the last two decades, Clubbing, Raves and EDM Festivals have moved from a minor subcategory of contemporary pop culture to a global movement that has almost become a modern-day ritual. Many academic discourses of raves paint it in a hedonistic light as a means of escapism from reality. The neoconstructivist perspective on this phenomenon highlights the emphasis on meaninglessness in modern amusement and the prominence of nostalgia. Through the intricate designs and set up of EDM festivals, a liberating atmosphere is created to promote the unwinding of its participants from their daily lives and letting go.



According to Zukin, contemporary leisure sites often feature spatial practices of displacement and distinct zones of thresholds which provide a break from the daily routine behaviour which is deemed 'appropriate' in which individuals seek out alternative social arrangements. Arguably a club would be the best example of such form with the temporary form of escape it enables.

EDM (Electronic Dance Music) an umbrella term used for electronically synthesized sounds that are mixed with other musical works specifically designed to compel dance. Dance is a means of self-expression and self-validation of identity as an individual. but the act of dancing also With majority of the people attending these raves aged between 15 – 25, raves are considered to be youth sub-culture, but originally early raves attracted a variety of different backgrounds and still do. The EDM subcultural phenomenon began as an underground movement in the late 80s as gathering of likeminded people with an appreciation of dance and uniqueness. This sense of community and acceptance of individuality is fundamentally driven by the 'message of peace, love, unity and respect, otherwise known as PLUR' (Lehner, 2018). Its appeal is driven by its acceptance of individualism which in turn creates a tight-knit community where uniqueness is embraced and allows for individuals the freedom of self-expression without the fear of rejection.

Raves and EDM festivals have more recently been under fire and condemned due to its strong negative connotations with recreational substance abuse and the deaths that follow the misuse with claims of it being a culture funded by self-centred motives of festival commoditisation and drug use. Especially with all the stress and pressure of modern society, a need for psychological release is sought and is often found in the form of recreational substances. With EDM culture heavily involved with enhanced states of consciousness, the resorting to psychedelics as a means to 'take the user to another level of being, [or] a state of euphoria [and] transcendence' (Lehner, 2018). '[T]he sensory overload to the throbbing music, exotic lighting, exhaustive dance and sensation stimulating drugs' (Hutson, 2000) allows for the gratification of the intense desire for pleasure where much of its satisfaction is not from intellectual stimuli but that completely on a sensory level.

But altered states of consciousness aren't dependent of mind-altering substances, rather it can be achieved through means similar to trance dances - with ' a combination of upbeat rhythmic drumming, exhaustive all night dancing, and flickering light' (Hutson, 2000). The rave experience is often aligned to spiritual and religious term because of its ability to heal the spirit but findings in a study of EDM participants reveal that they are able to foster and maintain interpersonal relationships, as they are able to access positive emotions more easily. With positive reports on the therapeutic effects during and following their experience of EDM events whether drug- and nondrug-induced suggests that these transcendent experiences of Raves may have a favorable impact on the mental health and wellbeing of individuals. Claims of EDM participation creating a positive change to the lives in areas of identity formation, attitude and transformation and personal growth of the individuals further highlights the benefits of rave culture in contemporary society, though more studies need to be undertaken for a more definite conclusion.

# Research: Meditation

## Meditation and wellbeing

Meditation is a practice that involves focusing ones mind for a “period of time in silence or with the aid of chanting, for religious or spiritual purposes or as a method of relaxation.” This practice is thought to have a positive affect on physiological and emotional wellbeing, particularly in the form of Zazen ‘seated meditation’, in which the body and mind are calmed, and Tai Chi, ‘meditation in motion’.

Research on meditation provides scientific evidence that the act of meditating produces benefits on somatic and psychological factors and attentiveness to one’s ideas and behaviours. Studies on neurological correlates of mind-body therapies suggest that meditation “enhanc(es) the immune brain-function and reduc(es) the pro-inflammatory gene expression or modulating leukocyte function related to inflammatory responses” - which are key aspects of the connection between mind and body. Through this, meditation can be seen as promoting physiological wellbeing to individuals who practice it in various forms.

Despite there being tangible evidence of its physiological benefits, it is difficult to examine the psychological effects of meditation in practice. A study on the psychobehavioral effects of meditation addresses this issue by examining the effects on broad psychological categories, such as personality traits, ability to cope with stress, mood, and emotional intelligence. It concluded that meditation successfully changes personality structures which increases openness to experience, compared with the non-meditators. This increased openness was associated with improved strategies towards coping with stress, therefore having a positive impact on wellbeing.

Meditation is a growing method that is being used as a means of psycho-behavioural therapy. The research discussed demonstrates that meditation is, in fact, effective in contributing positively to mental and physical wellbeing. In conclusion, meditation is proven to benefit mental health by improving general wellbeing, coping with stress and enhanced mood and behaviour.



*Fig 1: A novice practices Zazen Meditation, Uji, Japan.*



*Fig 2: People exercising Tai Chi, Beijing, China.*



# Research: Meditation Practice and Ageing

## Overview

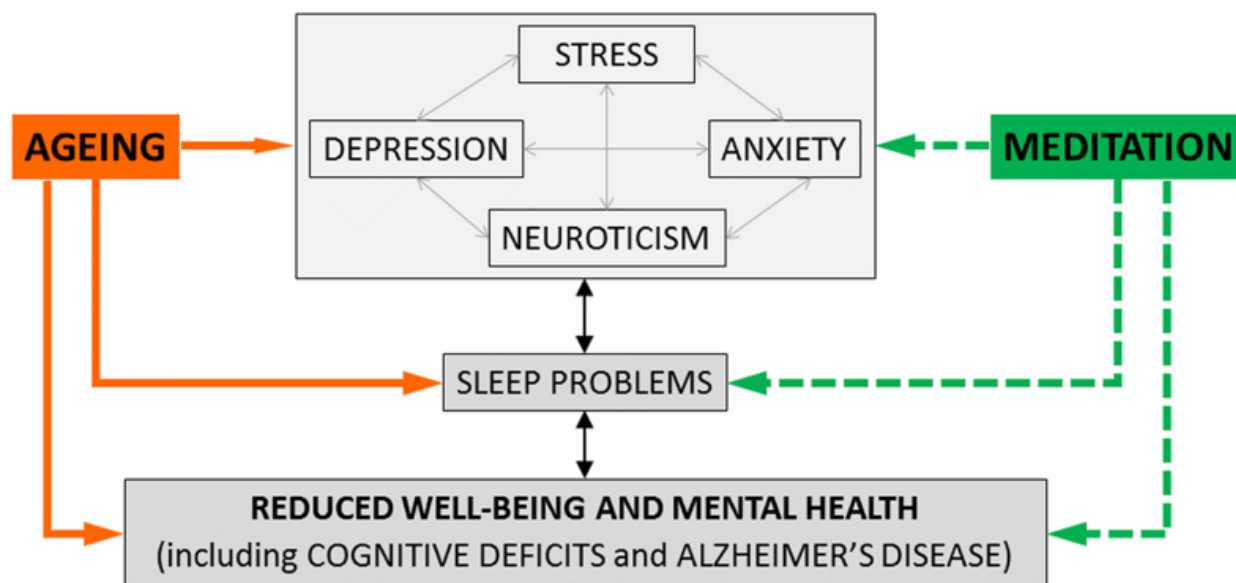
States such as stress, depression, and anxiety are known to have a negative impact on mental wellbeing and cognition in aging populations, and are associated with the increased risk of Alzheimer's disease. Studies on regular meditation and mental 'training' show positive outcomes in improving attention and memory. These studies suggest that meditation can assist in the preservation of brain structure from progressive age-related diseases and decline.

## Effect on the brain

Regular meditation can have an immensely positive impact on the brain. Cognition becomes improved, showing an increase in memory retention and focus. Brain structure is improved especially in the paleomammalian cortex, the limbic system, which supports the following functions:

- emotion (the limbic system primarily houses this function)
- behaviour (directly impacted by mood, affects motivation)
- olfaction (sense of smell)
- memory (the limbic system is critical in the formation and storage of memories)

A study was also conducted on measuring the grey matter volume and glucose metabolisms on aged participants who consistently and expertly meditated and others who did not. Grey matter is a critical medium of the central nervous system, and glucose metabolism is the energy required for organs to function correctly. In the group of participants who regularly meditated it was found that their glucose metabolism and grey matter volume was higher than the control group who did not meditate. This suggests that regular, consistent meditation has a direct relation to the preservation of the brain structure and its' functions.



*The effect of psycho-affective states on the mental well-being of the ageing population*

## Silver Santé study

The Silver Santé study is a five year study to improve and promote the mental well-being of the ageing population. Based in Caen, France, the study is a further investigation from the study mentioned above. Clinical trials will be conducted with participants with existing cognitive decline states (such as those living with Alzheimer's disease), participants who are well-versed in meditation, and participants who are over the age of 65.

## **Research: Health Benefits of Blue Light Exposure**

Interesting new studies have come out of The University of Surrey (UK) and Heinrich Heine University Düsseldorf (Germany) in collaboration with Philips reports, suggesting whole body irradiation with visible blue light at real world doses can reduce blood pressure, endothelial function and arterial stiffness, lowering the risk of cardiovascular disease.

The randomised crossover study exposed 14 healthy male subjects, on two days to over 30 minutes of whole- body monochromatic blue light then blue light with a filter foil (control light). The subjects blood pressure, heart rate, forearm vascular resistance, forearm blood flow, endothelial function, pulse wave velocity and plasma nitric oxide species, nitrite and nitroso compounds, were measured during and up to 2 hours after exposure. Results found the blue light significantly decreased systolic blood pressure and increased heart rate, as well as significantly increasing forearm blood flow, flow-mediated dilation, circulating nitric oxide species and nitroso compounds while it decreased forearm vascular resistance and pulse wave velocity; other cardiovascular risk markers.

The exciting conclusion was that the blue light releases from the skin into the bloodstream, relaxing the blood vessels, increasing blood flow and therefore decreasing blood pressure.

Quite a significant find when compared to the control light which had no effect.

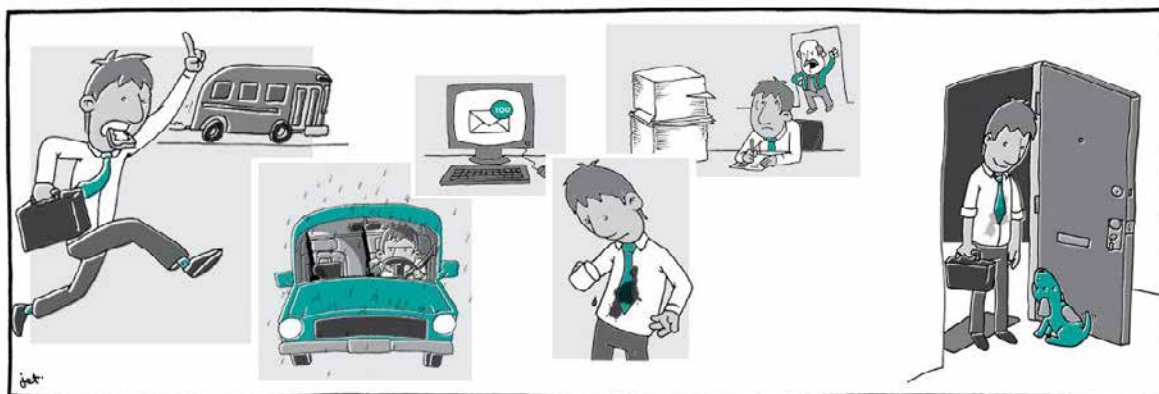
The study published in the European Journal of Preventive Cardiology, September 10th 2018, was only performed on limited participants so still needs to undergo further testing, however if pattern continues could be affordable and radiation-free treatment.



## Research: Animal Assisted Therapy

The benefit of animals in providing therapy and assisting in substantially increasing the perceived wellbeing of a person is being more and more formalised, as their roles in the healing process becomes more defined.

Various mental health oriented non-profit organisations such as Beyond Blue and Reach Out sing the praises of pet ownership, and the advantages they can provide in dealing with illnesses of that nature.



*Beyond Blue 2019  
Pets and their impact on mental health*

Beyond Blue specifically bring up pets' inability to judge, availability in offering company, encouragement in being more active, and a reminder of responsibilities. Reach Out also bring up pets' ability to have emotions and anxieties projected onto them without fear of rejection or that their deepest insecurities would be taken advantage of. Both of these organisations feature on their website various testimonials from clients who personally have found their pet to play a large part in maintaining their mental and physical wellbeing.

In terms of more rigorous scientific research, there has been some data that has been able to offer insight into the health and wellbeing benefits that assistance animals offer for patients. Friedmann, E. and Son, H (2009), for example, found through their research data that "the human-animal bond is extremely important to most clients..." and "...just being in the presence of a companion animal, is associated with health benefits, including improvements in mental, social and physiological health status."

A further example can be found in Barker, SB, and Dawson, KS. (1998) and their research into the effects of animal assisted therapy on anxiety ratings of hospitalised psychiatric patients. Their study involved 230 individuals who were all referred to the program and subject to multiple sessions with the therapy dogs, and their anxiety levels reported on. The conclusion was that they saw "statistically significant reductions in anxiety scores... found after the animal assisted therapy for patients with psychotic disorders, mood disorders, and other disorders." This paper showed that even higher risk patients would still see significant mental wellbeing benefits from even limited play time with the dogs.

While therapy dogs are not incredibly common in Australia as a form of treatment, the option is becoming more and more available as organisations are formed to provide the service by training animals and pairing them with patients. Even with the formal research in mind, the most supportive evidence of animal assisted therapy must be the innumerable though highly anecdotal examples of people having their state of wellbeing being positively influenced by surrounding animals. Particularly in regards to the common, but incidental employment of a personal pet into a therapeutic role.

# Research: Mindfulness

## What is Mindfulness?

Mindfulness practices the notion of being consciously aware of your present self through maintaining a receptive attitude, 'living in the now' to alleviate stress and strive towards realising happiness and peace in oneself. It is a "state of consciousness that emerges from intentionally and nonjudgmentally focusing on the experience unfolding in the moment" (Bourgault & Dionne, 2018).

When the mind is not otherwise occupied, the brain becomes engaged in active self-referential thinking, alternatively referred to by researchers as 'stimulus-independent thought', or as the brain's 'default mode' (Burk 2014). The mind is constantly thinking, contemplating on past experiences, planning future events, daydreaming or fantasising thought to lead to stress, anxiety, depression, dissatisfaction. The brain tends to be caught within a spiral of mindless thoughts where it generally does not involve what is being currently experienced. Through adapting and applying the process of mindfulness, it encourages an individual to shift their mind to the occurrences of present experience, redirecting the mind from 'stimulus-independent thought' to a current state of mind.

Effective mindfulness is experienced when an individual is situated in a peaceful environment – you are better able to consciously and intentionally focus your attention on the senses and yourself in its present state. It has notions similar to practices of meditation, where meditation "is a practice of deliberately directing your mind in a particular way for a period of time for the purpose of affecting the mind itself..." (Burk 2016). Meditation is able to train an individual to be attentive to one's mind whereas mindfulness brings focus to the present moment through engagement with one's senses, being mindful of the 'now'.

As the mind essentially becomes free from stress and worry, there are multiple benefits an individual may experience: decreases in stress, anxiety and depression, better regulation of emotional reactions and increases positive psychological states, increased levels of satisfaction, improvements in ability to maintain attention and concentration, etc. It transforms the way an individual endures and manages stress through the manipulation of how an individual utilises their mind and how one perceives themselves. The power of awareness, coupled with intentionality, can guide your mind towards better habits.

*"In essence of Buddhism, life can be phrased like this: life can be tough, but your experience of it depends largely on how you use your mind. Change your mind, change your experience; change your experience, change your reactions; change your reactions, change your behaviours – once. You change your behaviours, you might even change the circumstances of your life and things will be a little less difficult." (Burk 2014).*



*Mindfulness in practice.*



# Research: Healing

## Healing the body

The term 'healing' can be very broad and vague as it can relate to the health of an individual's physical, mental, emotional and/or spiritual state. According to the Cambridge dictionary, 'healing' is defined as, "The process of becoming well again," leaving the definition to be interpreted by an individual's perception on what is considered 'well' and how one may achieve a sense of healing.

Wellness centres have been designed to create a relaxing and resting environment for its occupants. Those who travel to wellness centres and retreats desire a calm and tranquil space that may help them heal or improve their perception of wellness whether its through spa treatments, athletic sessions or simply lounging around. However, the argument is presented if wellness retreats help individuals become well. An entry to the Journal of Alternative and Complementary Medicine has explored this topic, investigating 'Do Wellness Tourists get Well?'

"Wellness is a holistic concept best represented as a continuum, with sickness, premature death, disability, and reactive approaches to health on one side and high-level wellness, enhanced health, and proactive approaches to health and well-being on the other. It is further acknowledged that wellness is multidimensional and includes physiologic, psychological, social, ecologic, and economic dimensions."

In this research, experts conduct an observational study of a variety of individuals' wellbeing after staying at a wellness retreat. The testees were sent to a week long wellness retreat with outcomes that were assessed upon their arrival and departure and again, six weeks after their stay. They were measured in tests that measure aspects of one's wellbeing such as the Depression Anxiety Stress Scale and the Five Factor Wellness Inventory.

From this observational study, it was concluded that the wellness tourists' wellbeing statistically improved in psychological and health symptom measures and that retreat experiences do have the ability to have a considerable impact on an individual's holistic wellbeing. These retreats create a sense of healing as it allows individuals to fulfil all the criterias of having a healthy wellbeing. Retreats offer opportunities for individuals to cultivate a connection with nature and their surroundings as well as enhancing their social interactions with similar people whilst avoiding their everyday stresses.

# Research: SALT THERAPY

## Speleotherapy & Halotherapy

Salt therapy is the natural, non-invasive holistic treatment that can be found healing respiratory related diseases and symptoms as well as skin conditions and mental health such as depression and anxiety.

Salt has natural anti-inflammatory and anti-histamine properties that assist in opening and clearing congestion and relaxing the airways. Salt works like a decongestant, loosening congestion and helping the body expel any excess residing in the airways. The natural antibacterial and anti-fungal properties also work as an antiseptic throughout the respiratory area. Salt therapy is based on the principal of prolonged exposure to the micro climate found in natural salt mine and salt caves and is said to help boost the immune system of the respiratory area and work as a preventative health measure to increase lung capacity. There are also skin benefits of salt therapy, it reduces inflammation and has antimicrobial affects.

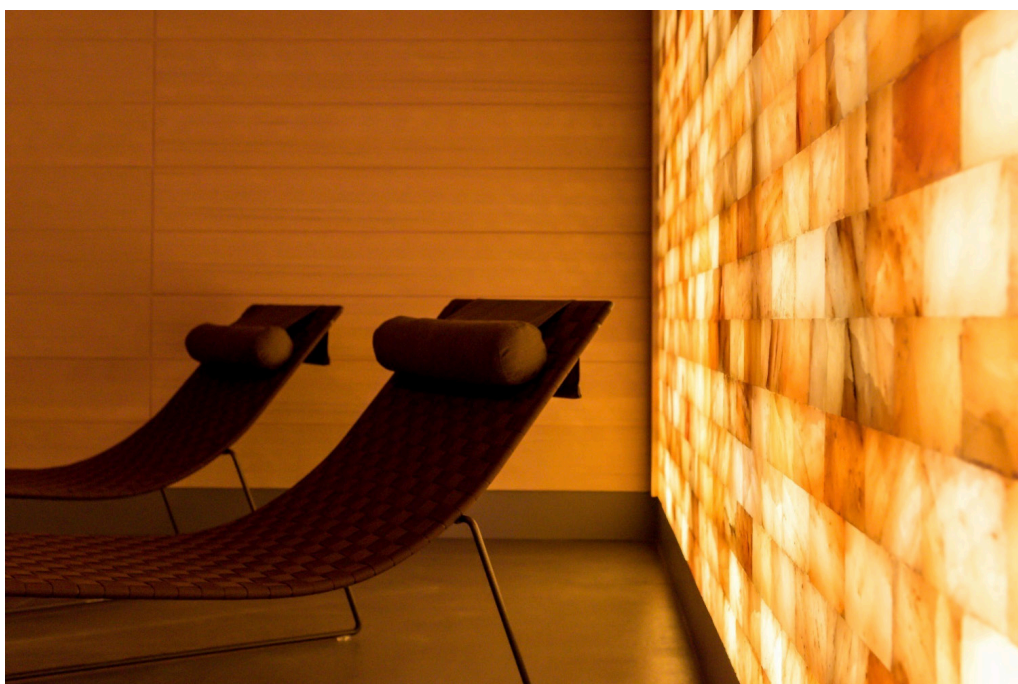
Salt therapy is also known as Halotherapy, Halos; the Greek word meaning Salt, originating from Speleotherapy, Speleon; the Greek word meaning cave. Speleotherapy is a respiratory therapy that involves breathing in mineral infused air in a micro-climate of a salt mine/cave.

Salt Therapy was a commonly used natural therapy that dates back to medieval times. Monks acknowledged the healing atmosphere of salt caves, and would take the sick to allow them to breathe air saturated with salt particles to get better.

In 1843 the benefits of Salt Therapy were published by Polish doctor Felix Boczkowski. Dr Boczkowski, a physician at the Wieliczka salt mine, noticed that miners did not suffer from respiratory conditions that were common at that time. He observed that the presence of dry salt particles in the salt mine had healing effects on those with respiratory and pulmonary discomforts.

Underground treatment in salt caves was the only method available, until the first salt room was developed in Russia. It was constructed using mined salt rock, sculpted into blocks along with a halogenerator which dispersed microscopic salt particles into the salt room. These above ground salt rooms recreated and replicated the micro-climate of a salt cave.

Salt Therapy has become popular in modern culture and is used by wellness/wellbeing clinics, spa facility and retreats around the world as a form of natural therapy.



*Speleotherapy-Salt Room, Euphoria Retreat, Mystras Greece*



# Research: Cold Therapy

## Cryotherapy

Cryotherapy, or cold therapy, activates the body's natural healing powers that can relieve symptoms of many medical conditions and promote a sense of wellbeing. When practiced on a regular basis, cold water immersion is linked to numerous health benefits and can provide long-term changes to the body's immune, lymphatic, circulatory and digestive systems.

Cold therapy constricts blood vessels and decreases metabolic activity and slow down physiological processes, which reduces swelling and tissue breakdown. Then, with rewarming after the skin is no longer in contact with the cold source, there is an increase of blood flow circulation which helps move the byproducts of cellular breakdown to the lymph system for efficient revolving by the body. "Ice baths don't only suppress inflammation, but they also help to flush harmful metabolic debris out of your muscles" (David Terry, M.D). Additionally, when practiced routinely, cold water immersion has been shown to facilitate weight loss as it can increase the whole body metabolic rate by about 16%.

Cold water immersion is a common strategy for exercise recovery and soreness, however its use may be contradictory. Research suggests that icing muscles immediately after exercise suppresses inflammation, hinders muscle fibre growth, and delays muscle regeneration. It is important to note that use often provides comfort and not medical assistance.



*Wim Hof, 'The Iceman'*

Cold therapy is one of the three pillars used in the Wim Hof Method, which is applied in the form of cold showers and ice baths. Participants of the Wim Hof Method report health benefits ranging from higher energy levels to relief of symptoms caused by autoimmune diseases. Additionally, a 2007 research study found that cold water immersion may be used as a treatment to depression symptoms as cold water triggers neurotransmitters and the production of endorphins that naturally make the subjects feel more energetic and active.

# References





# References

## Precedent: THE BARAI

Bunnag Architects, *The Barai Spa at the Hyatt Regency Hua Hin*, viewed 28 April 2019, <<https://www.bunnagarchitects.com/1st-project>>.

Booking.com 2019, *THE BARAI by Hyatt Regency Hua Hin*, Amsterdam, viewed 28 April 2019, <<http://www.booking.com/Share-2gqM4I>>.

Vater, T. 2019, 'The Barai', *The Telegraph*, viewed 28 April 2019, <<https://www.telegraph.co.uk/travel/destinations/asia/thailand/hua-hin/hotels/the-barai-hotel/>>.

Hyatt Corporation 2007, *HYATT REGENCY HUA HIN LAUNCHES THE BARAI AN EIGHT-SUITE RESIDENTIAL SPA*, Hong Kong, viewed 28 April 2019, <<https://newsroom.hyatt.com/2007-03-01-HYATT-REGENCY-HUA-HIN-LAUNCHES-THE-BARAI-AN-EIGHT-SUITE-RESIDENTIAL-SPA>>.

Hyatt International Corporation 2017, *About Us*, viewed 28 April 2019 <<http://thebarai.com/about-us/>>.

Fig 1: Bunnag Architects, *The Barai Spa at the Hyatt Regency Hua Hin*, viewed 28 April 2019, <<https://www.bunnagarchitects.com/1st-project?lightbox=dataltm-jda6c4en2>>.

Fig 2: Bunnag Architects, *The Barai Spa at the Hyatt Regency Hua Hin*, viewed 28 April 2019, <<https://www.bunnagarchitects.com/1st-project?lightbox=dataltm-jda6c4el1>>.

Fig 3: Bunnag Architects, *The Barai Spa at the Hyatt Regency Hua Hin*, viewed 28 April 2019, <<https://www.bunnagarchitects.com/1st-project?lightbox=dataltm-jda6c4en3>>.

## Research: Massage

Watson, S. 1997, 'The effects of massage: an holistic approach to care', *Nursing Standard*, vol 11., no. 47, pp. 45-47.

Smith, M.C., Stallings, M.A., Mariner, S. Burrall, M. 1999, 'Benefits of massage therapy for hospitalized patients: a descriptive and qualitative evaluation', *Alternative Therapies*, vol. 5, no. 4, pp. 64-71.

Field, T.M. 1998, 'Massage Therapy effects', *American Psychologist*, vol. 53, no. 12, pp. 1270-1281.

Fig 1: Smith, M.C., Stallings, M.A., Mariner, S. Burrall, M. 1999, 'Benefits of massage therapy for hospitalized patients: a descriptive and qualitative evaluation', *Alternative Therapies*, vol. 5, no. 4, pp. 67.

## References

### Precedent: Floating Lotus

Floating Lotus 2019, Viewed 26th April 2019, <<http://floatinglotus.com/floatation-therapy/>>

Nimbus & Co. 2019, *The Nimbus Experiance*, Viewed 26th April 2019, <<https://www.nimbusco.com.au/infrared-sauna-2> >

### Reasearch: Floatation Therapy

Feinstein, Justin S et al. "Examining the short-term anxiolytic and antidepressant effect of Floatation-REST." PloS one vol. 13,2 e0190292. 2 Feb. 2018, doi:10.1371/journal.pone.0190292

Floating Lotus 2019, *Benefits of Floatation Therapy*, Viewed 29th April 2019, <<http://floatinglotus.com/floatation-therapy/>>



## References

### Precedent: One Man Sauna

Griffiths, A., (2014), Modulorbeat creates One Man Sauna inside a stacked concrete tower. Webpage < <https://www.dezeen.com/2014/06/05/modulorbeat-one-man-sauna-stacked-concrete-tower/>>  
Visited 25/04/2019

One Man Sauna, 2014, Modulorbeat, Germany. Webpage < <https://www.modulorbeat.de/work/one-man-sauna>>  
Visited 26/04/2019

Fig 1-7: One Man Sauna, Modulorbeat, Jan Kampshoff, Roman Mensing, 2014 <<https://www.modulorbeat.de/work/one-man-sauna>>  
Visited 26/04/2019

### Research: Sensory Deprivation

Fine, T.H., (1989) Floatation REST In Applied Psychophysiology, Medical College of Ohio Webpage <<http://www.joergo.de/tank/fine.htm>>  
Visited 27/04/2019

Fine, T.H., & Turner, J.W., Jr. (1983). The Use of Restricted Environmental Stimulation Therapy (REST) in the Treatment of Essential Hypertension, First International Conference on REST and Self-Regulation, 136-143  
Visited 27/04/2019

Heron, W. & Hebb, D.O., (1961) Sensory Deprivation: A Symposium Held at Harvard Medical School. Harvard University Press: Massachusetts.

Kjellgreen, A. & Westman J., (2014). Beneficial effects of treatment with sensory isolation in flotation-tank as a preventive health-care intervention, BMC Complementary and Alternative Medicine, Webpage <<https://www.researchgate.net/publication/267730317>>  
Visited 27/04/2019

Figure 1: Screenshot of 'Stranger Things, 2017.

# References

## Cover Image:

EFFEKT 2018, *Skateboarders*, EFFEKT, Viewed 19 April 2019. <<https://www.effekt.dk/gse>>.

## Precedent: GAME StreetMekka Esbjerg

### Research:

EFFEKT 2018, *STREETMEKKA ESBJERG*, EFFEKT, Denmark, Viewed 19 April 2019. <<https://www.effekt.dk/gse>>.

Rory Stott 2014, *EFFEKT Wins Contest to Redevelop Abandoned Train Shed in Esbjerg with Streetmekka*, Archdaily, viewed 19 April 2019. <<https://www.archdaily.com/573713/effekt-wins-contest-to-redevelop-abandoned-train-shed-in-esbjerg-with-streetmekka/>>.

### Images:

Fig1: EFFEKT 2018, *Render of GAME StreetMekka*, EFFEKT, Viewed 19 April 2019. <<https://www.effekt.dk/gse>>.

Fig 2: EFFEKT 2018, *Design Principles*, EFFEKT, Viewed 19 April 2019. <<https://www.effekt.dk/gse>>.

Fig 3: EFFEKT 2018, *Render showing the central social hub*, EFFEKT, Viewed 19 April 2019. <<https://www.effekt.dk/gse>>.

Fig 4: EFFEKT 2018, *Floor Plan*, EFFEKT, Viewed 19 April 2019. <<https://www.effekt.dk/gse>>.

Fig 5: EFFEKT 2018, *Details of the five Mekkas and their programme*, EFFEKT, Viewed 19 April 2019. <<https://www.effekt.dk/gse>>.

Fig 6: EFFEKT 2018, *Night time model showing roof and structural openings*, EFFEKT, Viewed 19 April 2019. <<https://www.effekt.dk/gse>>.

Fig7: EFFEKT 2018, *Night time model showing the internal structure and programme*, EFFEKT, Viewed 19 April 2019. <<https://www.effekt.dk/gse>>.

## Research: Wellness, Greenery and Public Spaces

### Research:

Beute. F 2013, 'Let the sun shine! Measuring explicit and implicit preference for environments differing in naturalness, weather type and brightness', *Journal of Environmental Psychology*, Vol. 36, pp. 162-178.

Mennis. J, Mason. M, and Ambrus. A 2018, 'Urban greenspace is associated with reduced psychological stress among adolescents', *Landscape and Urban Planning*, Vol 174, pp. 1-9.

Wood. L, Hooper. P, Foster. S and Bull. F 2017, 'Public green spaces and positive mental health – investigating the relationship between access, quantity and types of parks and mental wellbeing', *Health & Place*, Vol 48, pp. 63-71.

### Images:

Fig 1: Wood. L, Hooper. P, Foster. S and Bull. F 2017, 'Public Green Space definition and type classifications', *Health & Place*, Vol 48, pp. 66.

Fig 2: Mennis. J, Mason. M, and Ambrus. A 2018, 'Examples of areas with low greenspace exposure (left images) and high greenspace exposure (right images)', *Landscape and Urban Planning*, Vol 174, pp. 4.

## References

### Precedent: American University of Beirut New Medical Center

American University of Beirut New Medical Center Expansion, Perkins + Will, viewed 25 April 2019,  
<<https://perkinswill.com/work/american-university-beirut-new-medical-center-expansion>>.

Designing for Health: Light, Circadian Rhythms, and the Health of Caregivers, Contract Design, viewed 25 April 2019,  
<<https://www.contractdesign.com/practice/healthcare/designing-health-light-circadian-rhythms-health-caregivers/>>.

Heliostat, Wikipedia, viewed 25 April 2019,  
<<https://en.wikipedia.org/wiki/Heliostat>>.

### Research: Circadian Rhythm

What is Circadian Rhythm?, National Sleep Foundation, viewed 25 April 2019,  
<<https://www.sleepfoundation.org/articles/what-circadian-rhythm>>.

How to measure the circadian rhythm in human being?, Journal of Sleep Medicine, viewed 25 April 2019,  
<<https://www.e-jsm.org/journal/view.php?number=95>>.

Measuring Circadian Rhythm, PubMed, viewed 25 April 2019,  
<<https://www.ncbi.nlm.nih.gov/pubmed/19268173>>.

Designing with Circadian Stimulus, the Lighting Research Center, viewed 25 April 2019,  
<[https://www.lrc.rpi.edu/resources/newsroom/LDA\\_CircadianStimulus\\_Oct2016.pdf](https://www.lrc.rpi.edu/resources/newsroom/LDA_CircadianStimulus_Oct2016.pdf)>.



## References

### Precedent: Daybreaker

Image:

Fig.1

Purcell W., The day starts with some yoga, Metro, Viewed 29 April 2019, < <https://metro.co.uk/2017/02/10/i-went-to-an-early-morning-rave-at-daybreaker-in-west-london-and-it-was-better-than-a-night-out-6433757/>>.

Fig. 2

Tillman, L. 2015, Daybreaker NYC, Viewed 29 April 2019, < <http://edmnyc.com/2015/06/16/review-daybreaker-nyc-new-yorks-7am-rave/#prettyPhoto>>.

Fig. 3

McHugh A. K. 2015, Daybreaker- Yoga, Viewed 29 April 2019, < <http://edmnyc.com/2015/06/16/review-daybreaker-nyc-new-yorks-7am-rave/#prettyPhoto>>.

Research:

Anderson S. 2014, Jump-Start Your Morning With an 8A.M. Rave, The New York Times, New York, Viewed 27 April 2019, <<https://www.nytimes.com/2014/06/13/nyregion/daybreaker-an-alcohol-free-morning-dance-party.html>>.

Daybreaker 2018, About – DAYBREAKER, Daybreaker, New York, Viewed 27 April 2019, < <https://www.daybreaker.com/about/>>.

Gardiner M. 2018, Why people are waking up for sober morning raves (instead of the gym), Eventbrite, USA, Viewed 29 April 2019, < <https://www.eventbrite.com/rally/new-york-city/daybreaker-morning-party-movement/>>.

Gibson H. 2017, Clean raving: how club culture went wild for wellness, The Guardian, Viewed 29 April 2019, < <https://www.theguardian.com/music/2017/jul/14/rave-health-wellness-festivals-djs>>.

Martino H. 2014, The Early Morning Sober Rave, Mashable Australia, Australia, Viewed 27 April 2019, < <https://mashable.com/2014/10/24/the-early-morning-sober-rave/>>.

Steinberg C. 2018, New trend: Early Morning Sober Raves, Palm Partners Recovery Center, Florida, Viewed 27 April 2019, < <https://www.palmpartners.com/new-trend-early-morning-sober-raves/>>.

### Research: The Roles of Psychedelics and Rave Culture in Wellbeing

Image:

Fig. 1.

Gaines D. N/a, A rave during New Years Eve, Arizona Sonora News, Viewed 28 April 2019, <<https://arizonasonoranewsservice.com/generation-rave-the-revival-of-electronic-dance-music/>>.

Research:

Dineen E. A. 2015, 'The EDM Festival Sensation: A Case study in the Netherlands', MSc Thesis, Wageningen University.

Goulding C., Shankar A. & Elliott R. 2001, 'Dance clubs, rave and the consumer experience: an exploratory study of a subcultural phenomenon', European Advances in Consumer Research, vol. 5, pg. 203-208.

Hutson S. R. 2000, 'The rave: Spiritual healing in modern western subcultures', Anthropological Quarterly, vol. 73, no. 1, pg. 35-49.

Lehner A. 2018, 'EDM: Spirituality in sound', The Undergraduate Journal of the UNH Department of Communication, pg. 22-28.

Redfield A. & Thouin-Savard M. I. 2017, 'Electronic Dance Music Events as Modern- Day Ritual', International Journal of Transpersonal Studies, vol. 36, no.1, pg. 52-66.

## References

### Precedent: Meditation Hall

- Han Shuang, *ArchDaily*, Meditation Hall/HIL architects, viewed 27 April 2019, <<https://www.archdaily.com/912262/meditation-hall-hil-architects>>
- Knas M 2019, *Trendland*, Serene Meditation Hall in Huanghua [China], viewed 28 April 2019, <<https://trendland.com/serene-meditation-hall-in-huanghua-china/>>
- Team Yellowtrace 2019, *Yellowtrace*, Meditation Hall in Huanghua, China by HIL Architects, viewed 28 April 2019, <<https://www.yellowtrace.com.au/meditation-hall-china-hil-architects-wellness-interior-design/>>

### Research: Meditation

- Campos D. 2016, 'Meditation and happiness: Mindfulness and self-compassion may mediate the meditation–happiness relationship', *Personality and Individual Differences*, vol 93, pp 80-85.
- Gallant S N. 2016, 'Mindfulness meditation practice and executive functioning: Breaking down the benefit', *Consciousness and Cognition*, vol 40, pp 116-130.
- Monk-Turner E. 2003, 'The benefits of meditation: experimental findings', *The Social Science Journal*, vol 40, no. 3, pp 465-470.
- Pokorski M, Suchorzynska A. 2017, 'Pulmonary Disorders and Therapy, Advances in Experimental Medicine and Biology', *Psychobehavioral Effects of Meditation*, vol 1023, pp 85-91.

Fig 1: Abbas A, JAPAN. Uji. MANPUKU-JI Buddhist temple of the Obaku Zen school. A novice practices zazen, meditation., *Magnum Photos*, viewed 28 April 2019, <<http://www.magnumphotos.com/>>

Fig 2: Franklin S. 2008, CHINA. Beijing. People exercising Tai Chi in the early hours of the day, *Magnum Photos*, viewed 28 April 2019, <<http://www.magnumphotos.com/>>

## References:

Precedent: Amangini Project

Wendell Burnette Architects, Amangiri Project, Viewed April 2019,  
<https://wendellburnettearchitects.com/resort-spa/amangiri/>

Amangiri Brochure, Published on Mar 6, 2012, Viewed April 2019,  
[https://issuu.com/wba-qianyiye/docs/amangiri\\_brochure\\_separated?backgroundColor=%2523222222](https://issuu.com/wba-qianyiye/docs/amangiri_brochure_separated?backgroundColor=%2523222222)

Aman Resort website, Visited April 2019,  
<https://www.aman.com/resorts/amangiri>

Sarah Press, *TRAVEL · HOTEL Amangiri Resort & Spa · Utah, USA*, Ignant (online) viewed April 2019,  
<https://www.ignant.com/2016/09/26/a-spa-in-the-high-desert-of-utah/>

Travel, 03 August 2018, Stay cool with these 10 hotel pools with a view, Wallpaper, Viewed April 2019  
<https://www.wallpaper.com/travel/best-rooftop-hotel-pools-global>

Images:

(1-5) Joe Fletcher, Sarah Press, *TRAVEL · HOTEL Amangiri Resort & Spa · Utah, USA*, Ignant (online) viewed April 2019,  
<https://www.ignant.com/2016/09/26/a-spa-in-the-high-desert-of-utah/>

(6-8) Wendell Burnette Architects, Amangiri Process, Viewed April 2019,  
<https://wendellburnettearchitects.com/resort-spa/amangiri/>

Research: Blue Light Therapy

University of Surrey. (2018, November 8). Blue light can reduce blood pressure, study suggests. *ScienceDaily*. Retrieved April 28, 2019, [www.sciencedaily.com/releases/2018/11/181108110032.htm](http://www.sciencedaily.com/releases/2018/11/181108110032.htm)

Volume: 25 issue: 17, page(s): 1875-1883

Article first published online: September 10, 2018; Issue published: November 1, 2018

Received: July 16, 2018; Accepted: August 21, 2018

[Manuel Stern](#)<sup>1</sup>, [Melanie Broja](#)<sup>1</sup>, [Roberto Sansone](#)<sup>1</sup>, [Michael Gröne](#)<sup>1</sup>, [Simon S Skene](#)<sup>2</sup>, [Joerg Liebmann](#)<sup>3</sup>, [Christoph V Suschek](#)<sup>4</sup>, [Matthias Born](#)<sup>3, 5</sup>, [Malte Kelm](#)<sup>1</sup>, [Christian Heiss](#)<sup>1, 2, 6</sup>

<sup>1</sup>Division of Cardiology, Pulmonology and Vascular Medicine, Medical Faculty, University Duesseldorf, Germany

<sup>2</sup>Department of Clinical and Experimental Medicine, Faculty of Health and Medical Science, University of Surrey, UK

<sup>3</sup>Philips GmbH, Innovative Technologies, Germany

<sup>4</sup>Department of Trauma and Hand Surgery, Medical Faculty, University Duesseldorf, Germany

<sup>5</sup>Heinrich-Heine University, Germany

<sup>6</sup>Surrey and Sussex NHS Healthcare Trust, UK

Corresponding Author: Christian Heiss, Department of Clinical and Experimental Medicine, Faculty of Health and Medical Sciences, University of Surrey, Stag Hill, Guildford GU2 7XH, UK. Email: [c.heiss@surrey.ac.uk](mailto:c.heiss@surrey.ac.uk)

Viewed April 2019,

<https://journals.sagepub.com/doi/abs/10.1177/2047487318800072?ai=1gvoi&mi=3ricys&af=R&>



## References

### Precedent: Elements of Byron Resort

ArchDaily 2016, Elements of Byron/Shane Thompson architects, viewed 24 April 2019, <<https://www.archdaily.com/790182/elements-of-byron-shane-thompson-architects>>.

Elements of Byron, Shane Thompson Architects, viewed 28 April 2019, <<http://shanethompson.com.au/58/Projects/view/194/Elements-of-Byron>>.

Elements of Byron, viewed 28 April 2019, <<https://elementsofbyron.com.au>>.

### Research: Meditation Practice and Ageing

Campellone, J. V. 2018, *Limbic system*, Medline Plus, viewed 28 April 2019, <<https://medlineplus.gov/ency/imagepages/19244.htm>>.

*Glucose metabolism*, Caninsulin, viewed 28 April 2019, <<http://www.caninsulin.com/glucose-metabolism.asp>>.

Chételat, G., Lutz A., Arenaza-Urquijo, E., Collette, F., Klimecki, O., & Marchant, N. 2018, 'Why could meditation practice help promote mental health and well-being in aging?', *Alzheimer's Research & Therapy*, viewed 28 April 2019, <<https://alzres.biomedcentral.com/articles/10.1186/s13195-018-0388-5>>.

## References

### Precedent: Caring Canines Visiting Therapy Dogs, Inc.

Bartlett, V. 2011, 'Cooper', weblog, The Harvard Crimson, viewed 28th April 2019, <<https://www.thecrimson.com/image/2011/12/16/cooper-hms-animalz/>>

Caring Canines Visiting Therapy Dogs, Inc. 2019, *Home*, viewed 28th April 2019, <<https://caringcanines.org/>>

Caring Canines Visiting Therapy Dogs, Inc. 2018, *Comfort Caring Canines Visiting Therapy Dogs, Visiting Temple University Hospital*, viewed 28th April 2019, <<https://www.comfortcaringcanines.org/blogposts/2018/1/8/comfort-caring-canines-therapy-dogs-visiting-temple-university-hospital-tgk4z>>

Harvard Health Publishing, 2011, *Therapy Dog Offers Stress Relief at Work*, viewed 28th April 2019, <<https://www.health.harvard.edu/blog/therapy-dog-offers-stress-relief-at-work-201107223111>>

### Research: Animal Assisted Therapy

Beyond Blue 2019, *Pets and their impact on mental health*, viewed 28th April 2019 <<https://www.beyondblue.org.au/personal-best/pillar/supporting-yourself/pets-and-their-impact-on-mental-health>>

Reach Out 2019, *Pets and mental health*, viewed 28th April 2019 <<https://au.reachout.com/articles/pets-and-mental-health>>

Friedmann E, Son H. 2009, 'The Human-companion animal bond: how humans benefit.' *The Veterinary Clinics of North America*, March pp. 293-326

Barker SB, Dawson KS. 1998, 'The effect of animal-assisted therapy on anxiety ratings of hospitalised psychiatric patients.' *Psychiatric Services (Washington D.C)*, June pp. 797-801

## References

### Precedent: Santani Wellness Resort & Spa, Kandy, Sri Lanka

Gonzales, M.F. 2018, *Santani wellness resort and spa / Thisara Therapy Associates*, viewed 27 April 2019, <<https://www.archdaily.com/906417/santani-wellness-resort-and-spa-thisara-thanapathy-associates>>.

Rosenfeld, C. 2016, *The Sri Lankan escape on a former tea estate*, viewed 27 April 2019, <<https://www.surface.com/articles/hotel-santani-sri-lanka/>>.

Santani, 2019. *Concept*, viewed 27 April 2019, <<https://www.santani.lk/concept/>>.

Santani, 2019. *What we are*, viewed 27 April 2019, <<https://www.santani.lk/what-we-are/>>

Vickum, 2019. *Santani wellness resort and spa*, viewed 27 April 2019, <<https://www.dwell.com/home/santani-wellness-resort-and-spa-f6806222>>.

#### Images

Gonzales, M.F. 2018, *Santani wellness resort and spa / Thisara Therapy Associates*, viewed 27 April 2019, <<https://www.archdaily.com/906417/santani-wellness-resort-and-spa-thisara-thanapathy-associates>>.

## Research: Mindfulness

Bourgault, M. & Dionne, F. 2018, Therapeutic presence and mindfulness: mediating role of self-compassion and psychological distress among psychologists, *Mindfulness*, vol. 10, no. 4, pp. 650-656.

Burk, D. S., 2014. *Mindfulness*, Penguin Group (USA) Inc., United States of America.

Burk, D. S., 2016, *Meditation*, Penguin Random House LLC, United States of America.

Monash University, 2018, *What is mindfulness?*, viewed 27 April 2019, < [https://www.monash.edu/\\_\\_data/assets/pdf\\_file/0006/233898/what-is-mindfulness.pdf](https://www.monash.edu/__data/assets/pdf_file/0006/233898/what-is-mindfulness.pdf)>.

#### Images

Nick Wingall, 2018, *How to start a mindfulness practice: a quick guide for complete beginners*, viewed 27 April 2019, <<https://nickwingall.com/how-to-start-a-mindfulness-practice/>>.



## References

### Precedent: Nanam Retreat Pure Spa

Archdaily, 2015, *Nanam Retreat Pure Spa*, Archdaily. Viewed 23rd April 2019, <<https://www.archdaily.com/770560/nanam-spa-mia-design-studio>>

Kwok, N. 2015, *MIA design studio's naman spa exudes tropical tranquility in vietnam*. Designboom. Viewed 23rd April 2019, <<https://www.designboom.com/architecture/mia-design-studio-nanam-spa-retreat-da-nang-vietnam-07-23-2015/>>

Mairs, J. 2015, *Vietnam spa by MIA Design Studio features latticed walls, hanging gardens and pools of water*. Viewed 23rd April 2019, <<https://www.dezeen.com/2015/07/23/nanam-spa-mia-design-studio-latticed-walls-hanging-gardens-pools-vietnam/>>

Nanam Retreat, 2019, *Pure Spa*. Nanam Retreat. Viewed 23rd April 2019, <<https://nanaanretreat.com/en/retreat/>>

### Research: Healing

Cambridge University Press. 2019. *Healing*, Cambridge, England. Viewed 23rd April 2019, <<https://dictionary.cambridge.org/dictionary/english/healing>>

Cohen, M. M., Elliott, F., Oates, L., Schembri, A., & Mantri, N. 2017. *Do Wellness Tourists Get Well? An Observational Study of Multiple Dimensions of Health and Well-Being After a Week-Long Retreat*. *Journal of alternative and complementary medicine*. New York, United States of America. Viewed 23rd April 2019, <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5312624/>>

## References

### Precedent: Euphoria Retreat

Euphoria Retreat 2019, *A Wellness Destination Retreat*, Nelios, Athens, viewed 29th April 2019, <<https://www.euphoriaretreat.com/en/>>.

### Research: Salt Therapy

Chervinskaya, A 2007, Halotherapy in Controlled Salt Chamber Microclimate for Recovering Medicine, *Balneologia Polska*, viewed 29th April 2019, <[http://chervinskaya.com/wp-content/uploads/pdf/09-Balneologia\\_Chervinskaya\\_HT\\_controlled\\_microclimate\\_rehab\\_medicine\\_article.pdf](http://chervinskaya.com/wp-content/uploads/pdf/09-Balneologia_Chervinskaya_HT_controlled_microclimate_rehab_medicine_article.pdf)>.

Chervinskaya, A. V. 2003, Halotherapy of Respiratory Diseases, *Physiotherapy, balneology and rehabilitation*, viewed 29th April 2019, <[https://viteh.com/docs/asth\\_sp\\_2003.pdf](https://viteh.com/docs/asth_sp_2003.pdf)>.

Euphoria Retreat 2019, *Gallery*, Nelios, Athens, viewed 29th April 2019, <<https://www.euphoriaretreat.com/en/gallery>>.

Zajac J, Bojar I, Helbin J, Kolarzyk E, Owoc A 2014, Salt caves as simulation of natural environment and significance of halotherapy, *Salt caves as simulation of natural environment and significance of halotherapy*, Vol. 21, No. 1, viewed 29th April 2019, <<http://www.aaem.pl/Salt-caves-as-simulation-of-natural-environment-and-significance-of-halotherapy,72071,0,2.html>>.

## References

### Precedent: The Shelter, Double Bay

Broadsheet Media 2019, The Founder of The Shelter Wants Working Out to Be More Luxurious, viewed 28 April 2019, <<https://www.broadsheet.com.au/sydney/active/article/founder-shelter-wants-working-out-be-more-luxurious>>.

Shelter 2019, Shelter, viewed 28 April 2019, <<https://www.the-shelter.com.au/>>.

### Reasearch: Heat and Cold Therapy

Innerfire BV 2019, Win Hof Method, viewed 28 April 2019, <<https://www.wimhofmethod.com/>>.

Robers, L., Raastad, T., Markworth, J., Figueiredo, V., Egner, I., Shield, A., Cameron-Smith, D., Coombes, J., Peake, J. 2015, '*Post-exercise cold water immersion attenuates acute anabolic signalling and long-term adaptations in muscle to strength training*', The Journal of Physiology, viewed 28 April 2019, <<https://physoc.onlinelibrary.wiley.com/doi/full/10.1113/JP270570>>.

Shevchuk, NA. 2007, '*Adapted cold shower as a potential treatment for depression*', PubMed, viewed 28 April 2019, <<https://www.ncbi.nlm.nih.gov/pubmed/17993252>>.



