Design for All

Content of August 2018 Vol-13 No-8

Other Regular Features

GUEST EDITOR:

Sameera Chukkapalli (1992) is currently a fellow at the FabCity Research Laboratory, Barcelona, Spain. She founded needlab, a non-profit organization to create a model of optimized practice to deliver maximum impact with the objective of making a difference to the communities. She was the project director and tutor for the Needlab_Kuwait Matters, India Matters, Vietnam Matters. She is working as Space Designer with CARPE LA Augmented Reality project in Los Angeles, USA, funded by the LA2050 program, to eliminate gray zones in public parks and to make them user-friendly. She has represented needlab and lectured in five countries on three continents, actively initiating a conversation about Human Centered design with Policymakers.

Sameera graduated, with MA Arch in Digital Matter and Construction, and completed Open Thesis Fabrication, on Large-Scale Natural additive construction using robots, from IAAC, Barcelona, Spain. Obtained B. Arch degree from BMSCE, Bengaluru, India, and the University of Berkeley, USA; Worked with External Reference Architects in Spain; Worked with VTN Architects in Vietnam, on the Tokyo pavilion "Bamboo Forest" for Japan and "S House"(low-cost housing prototype) for Vietnam

Planning the Liveable

By Jakub Havlik

The objective of this thesis is finding a way in which cities (parts of the city) capable of becoming liveable could be created intentionally. Out of this objective the research question was formulated:

Would it be possible to intentionally resemble that quality which discerns Carrer de Verdi in Gracia from Rambla de Prim in Sant Marti? (2 streets from 2 various districts of Barcelona) Would it be possible to intentionally resemble the conditions which make places liveable?

Among the all the critiques, a common pattern was observed, and that was associating city´s liveability to certain spatial conditions, to certain morphology – to the natural city. According to this observation, hypothesis was defined:

There is a correlation between parameters defining urban structures and the amount of life emerging within these structures. By understanding these relations, it could be possible to intentionally recreate conditions which make cities liveable.

Methodologically, this research has a tripartite basis, collecting concepts and tools from the urban sociology, urban morphology and algorithmic design/parametric urbanism.

In order to prove what the hypothesis stated, to find *correlation between parameters defining urban structures and the amount of life emerging within these structures,* experiments were carried out. Barcelona was chosen as laboratory, in order to maintain constant inputs (climate, cultural context, etc.), and the case studies to be tested were Bareclona´s *most vital organs,* its public spaces. Together, 20 case studies were compared, defined by parameters which were divided into 7 main categories: 1) spatial 2) visibility 3) solar 4) public/civic/market ratio 5) program 6) social 7) other.

The results of the experiment were then evaluated in order to find presence of correlation between liveability and each parameter from the 7 categories. The parameters were sorted according to their impact on the liveability of the tested public space.

The most significant parameters were applied in the main proposal of this thesis – a design method by which more liveable cities (parts of the city) could be generated

To test this method, as an example, a site was chosen in Barcelona, in order to maintain the same inputs as throughout the

experiment.
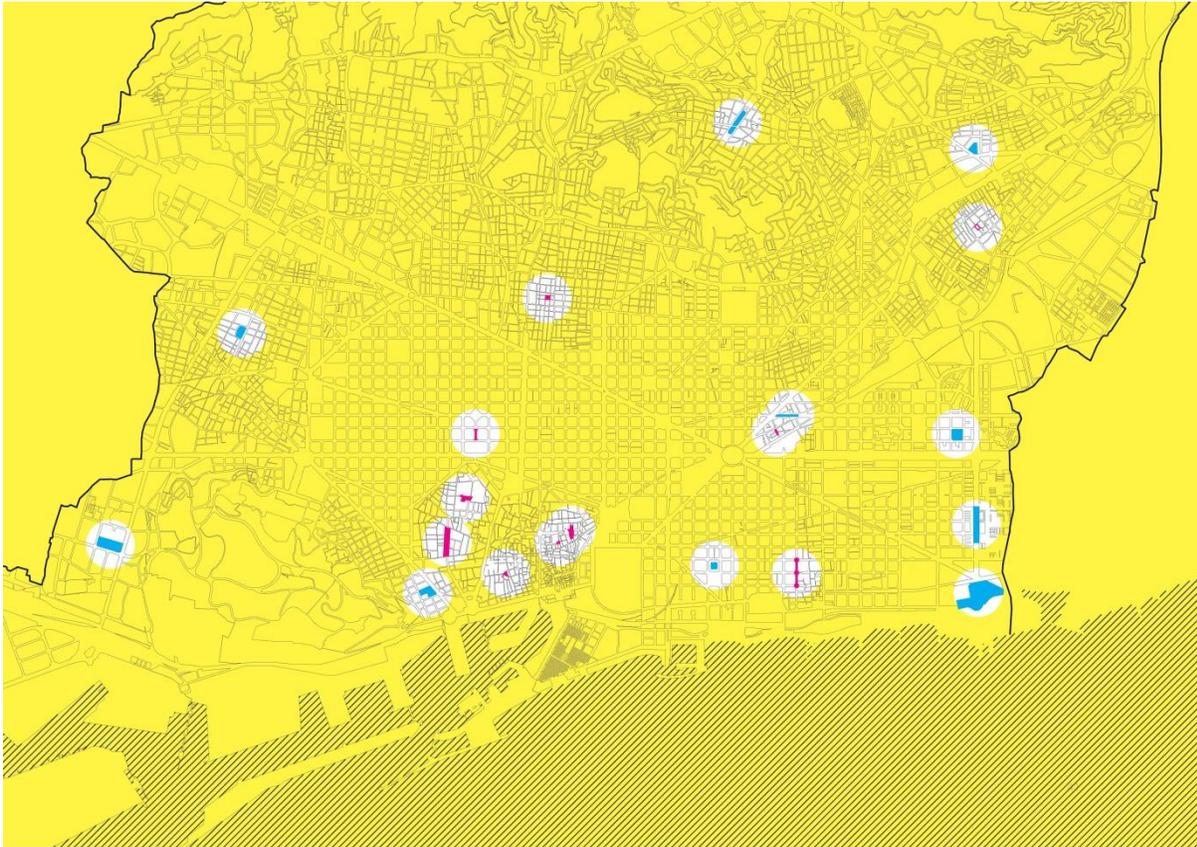
The site is located in Zona Franca, Sants-Montjuic district, at the very edge of the city. It is one of the last, relatively large, empty slots of Barcelona. Currently, there is an ongoing development, following the master plan according to which on of the typical suburban residential districts will grow. The method proposes an alternative way in which this district could grow into a more liveable one – in compariaon to what its current masterplan restricts it to. By using data from the research, learning from liveable districts of Barcelona, a set of lines for the streets to follow and a set of bounding boxes was defined which would guide the district growth – so that it would maintain the spatial relationships of liveability. However, what will happen within (and between) these bounding boxes, is up to their inhabitants.
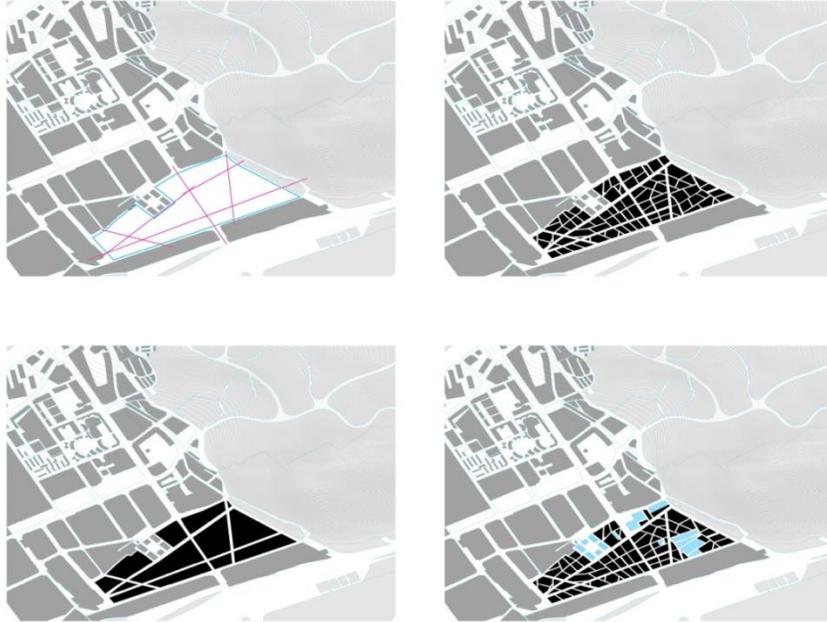
Design development process.

88
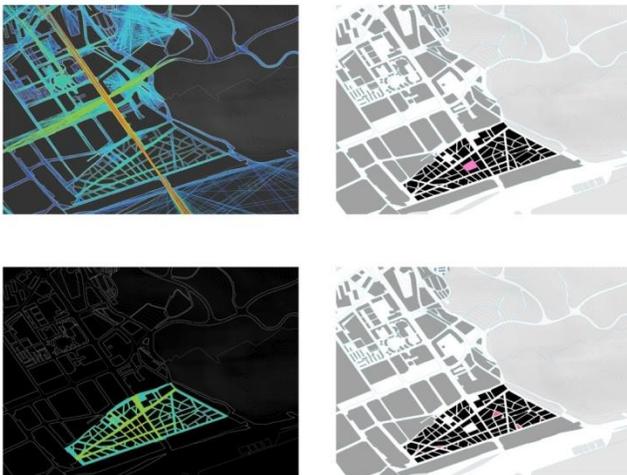
Iterations of the design
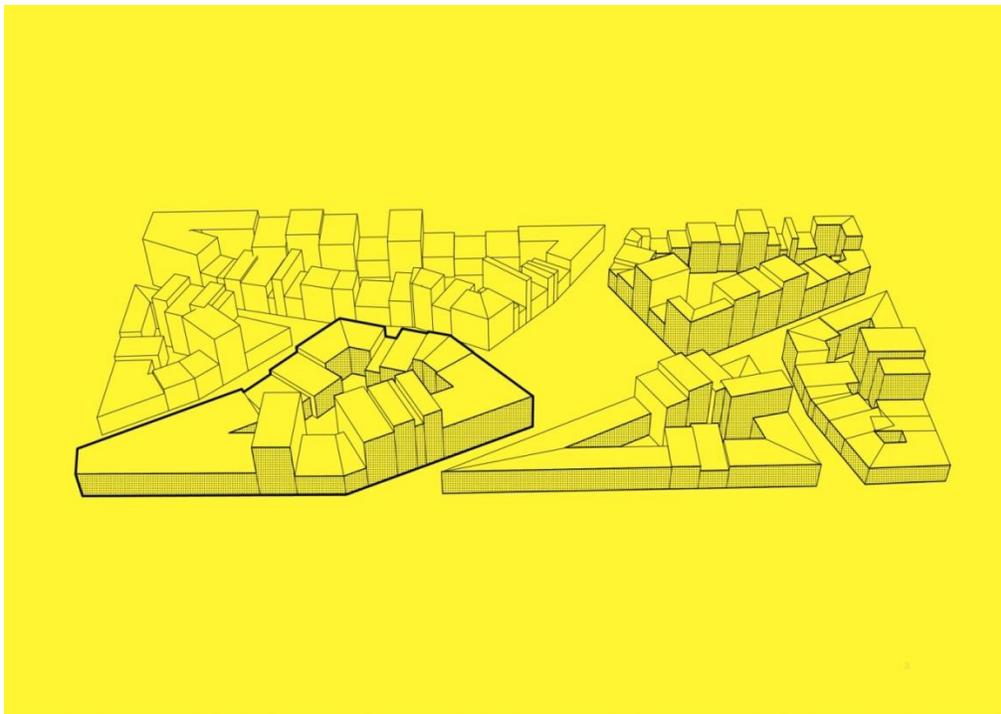
Final design developed.

STUDENT – 02

# Digital Woodcraft

By Nikolaos Argyros

*Design and fabrication strategies based on natural wood characteristics.*

The natural complex shapes and other singular characteristics found in tree trunks and branches tend to have excellent structural performance, but are often dismissed when transformed into a flat component and then again re-machined into the final product, generating additional material and energy waste. This research introduces Digital Woodcraft, an alternative design and fabrication workflow that has as a starting point found tree trunks, taken as the main component considering its unique constraints and variables for the design and the fabrication phase. Singular characteristics of each tree are used as parameters for generating the design and the assembling rules, such as grain direction, knots, branch position, specific gravity etc... In order to collect, analyse and work with such complex components, the research project explores the incorporation of 3d photogrammetric scanning techniques, parametric modelling, and robotic fabrication. With the implementation of such workflows and techniques, traditional systematised industrial manufacturing components used in construction industry can be surpassed, producing unique objects that cannot be reproduced, enabling a more efficient material use, and taking advantage of the unique structural and morphological

characteristics of trees that can open a renewed agenda for constructing unique complex structure with a minimum effort.

Incorporation 2D Tree-rings in 3D scanning.

D: 12 cm M: 55 kg N: 4 X:4

D: 26 cm M:79 kg N: 5 X:6

D: 50 cm M:53 N: 4 X:3

D: 67 cm M:78 N: 5 X:7

D: 34cm M:51 N: 4 X:3

D: 43mm M:70 N: 5 X:7

D: 28 mm M:59 N: 4 X:3

D: 14 mm M:57 N: 4 X:4

D: 17 mm M:54 N: 4 X:3

Connection Points

Thickness

Final Design

Simulation Model

Scaned Position

Positioning & Calibration

Siumulation & Robotic Fabrication

Final Product
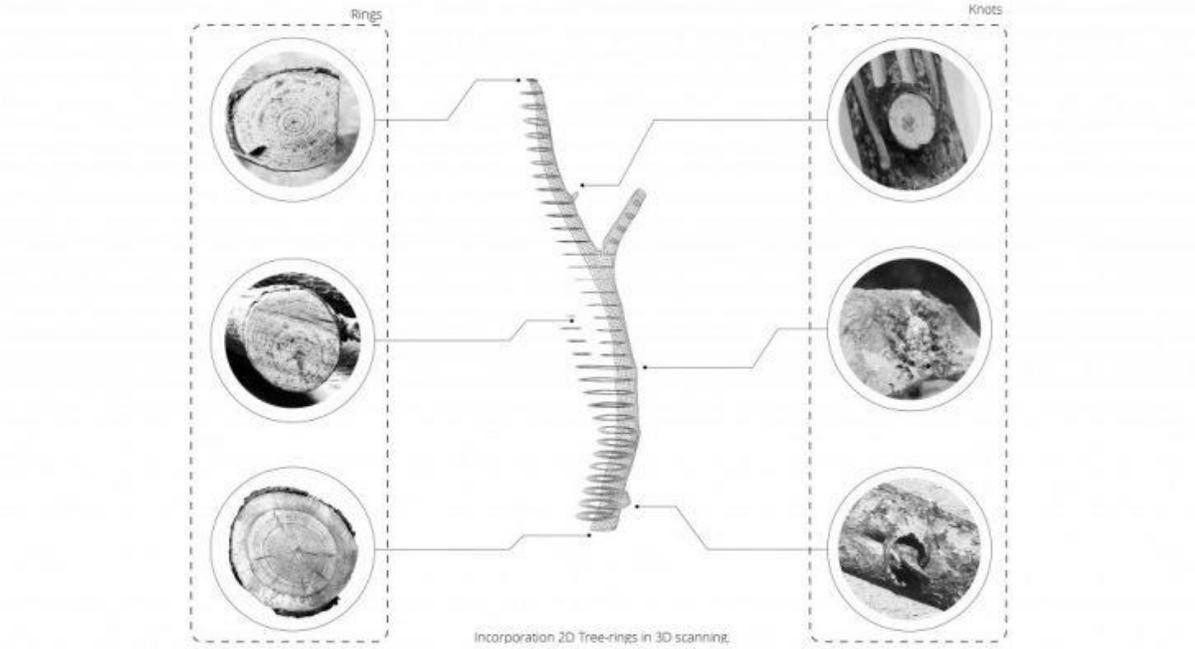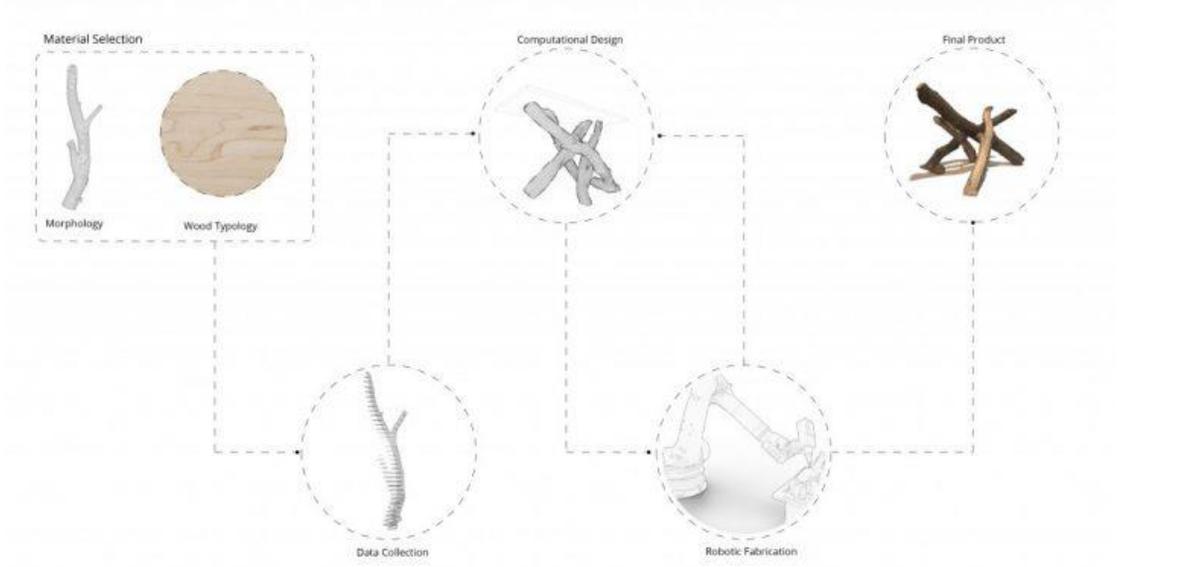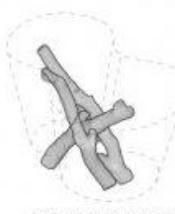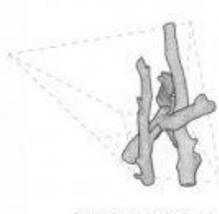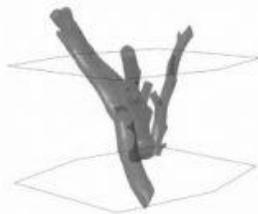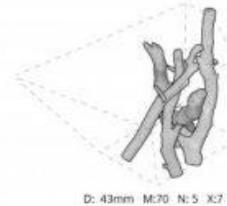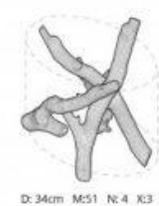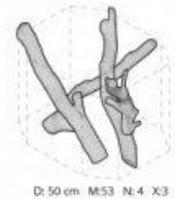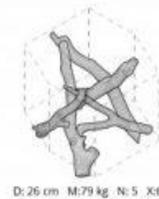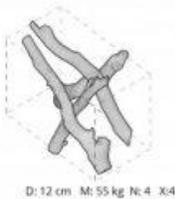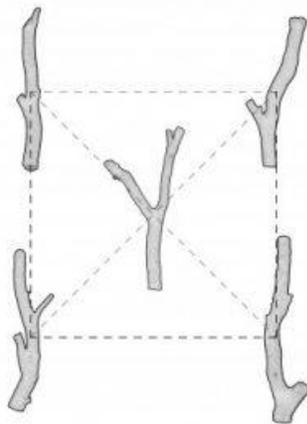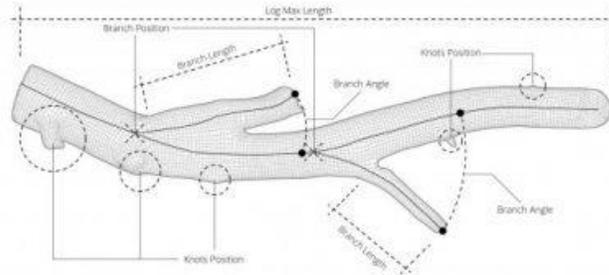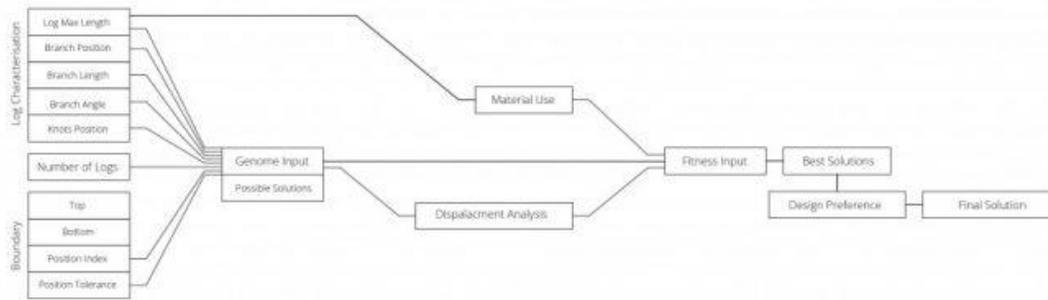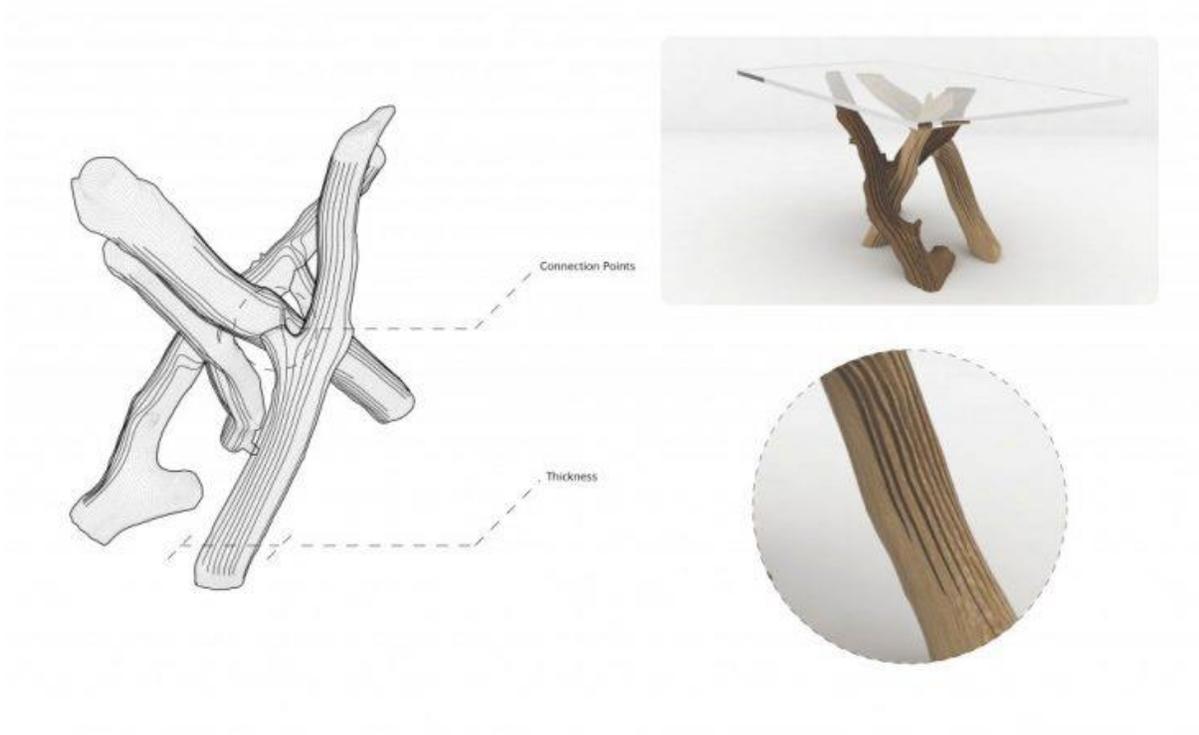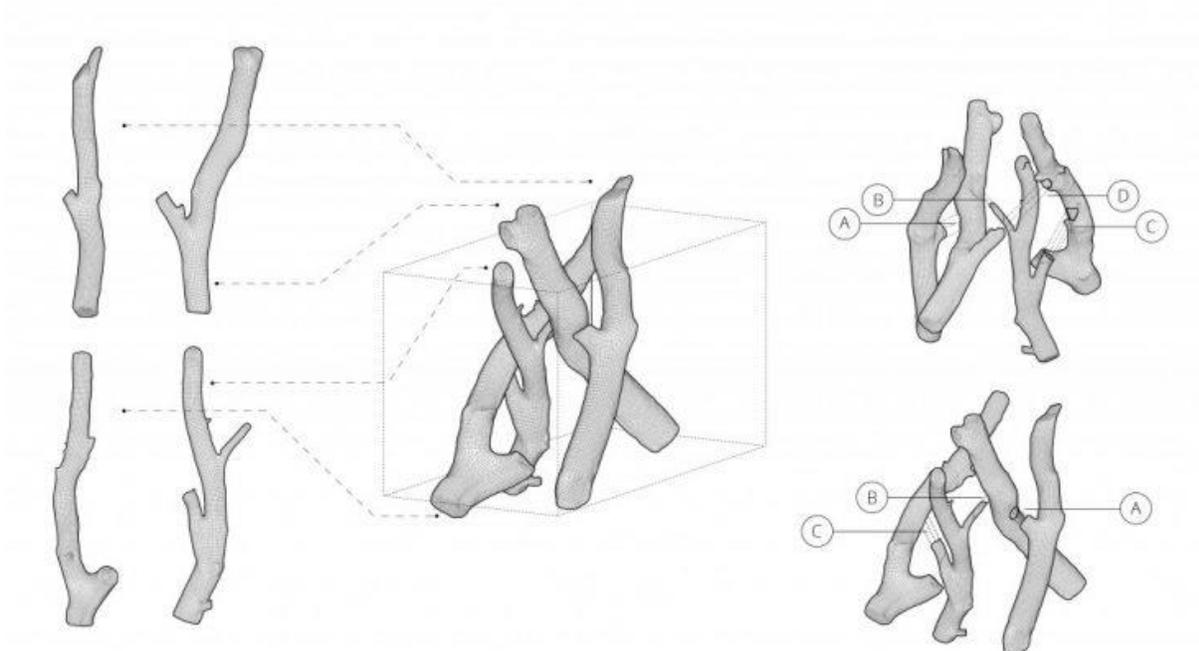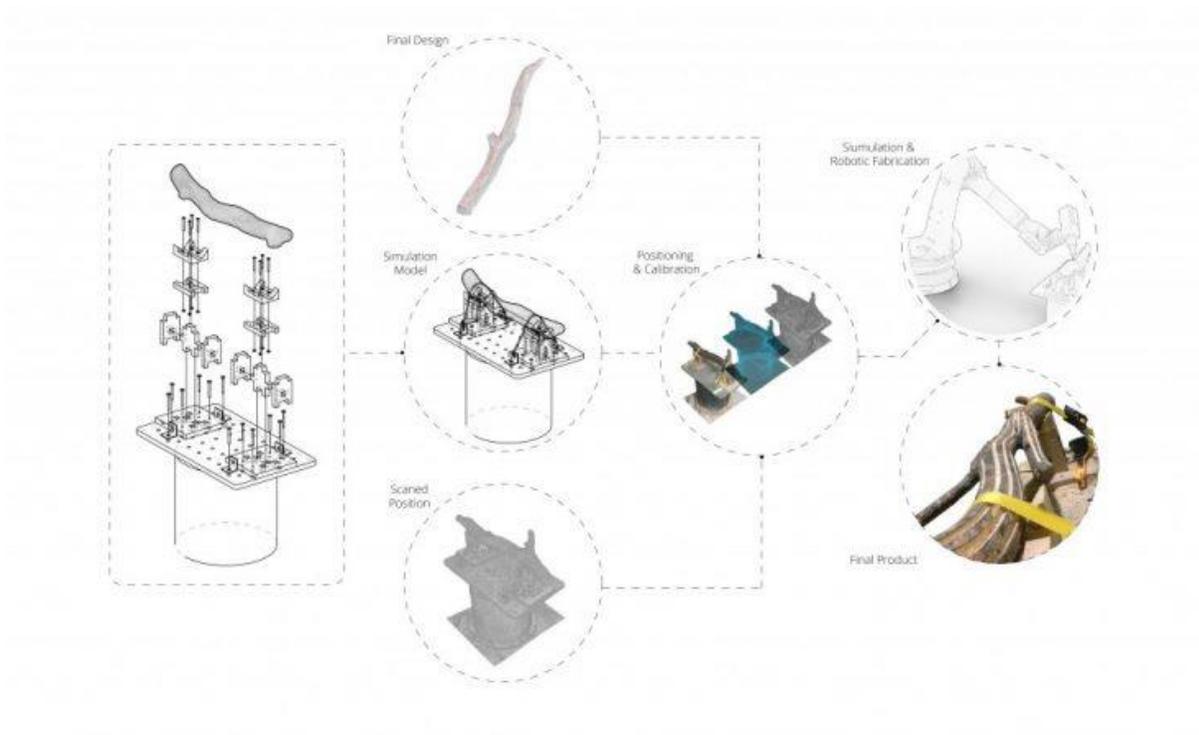
Eutierria

The feeling of oneness with nature

By Saakib Sait

This house is designed for a couple having a heightened sense of belonging with both nature and the global civilization. Based on functions, the house is divided into 3 pods. These pods are raised above the ground on stilts (a) resulting in a modest ground footprint. The access to the pods is by a specially designed ladder. This house aims at being extremely mobile and adaptive to various site conditions. Whether it's on a constrained patch of urban land or the abundance of raw, rugged nature including floating in water.

The furniture and interiors of the pod remain fixed avoiding any gimmicks of cumbersome convertible spaces. This allows for personalization and gives the house a sense of belonging and permanence despite being pragmatic and mobile.

The inclined walls of each pod give the opportunity for furniture to be pushed onto them (b). This frees up the floor space and gives a feeling of a larger room. The organic shape allows the pods to squeeze in or blow out as ergonomically required. The epoxy-

fibreglass laminate and PU foam sandwich wrapped around a wooden skeleton forms the exterior shell of the pods. This makes the pods super lightweight. The exterior dimensions of the pods are constrained by the size of large shipping containers. The carbon fibre stilts (arranged in a triangulated pattern below ground) (d) are inspired by the collapsible shaft of an umbrella. The base of the pods consists of all the mechanical, plumbing and storage below the floor boards. It is designed to achieve buoyancy for the opportunity of living on water (c)

The living pod is closest to the ground. It consists of a small pantry and a seating area with an additional balcony that can seat two people for coffee or a meal with a view. The sliding polycarbonate doors double up the living space as and when required. The seating is designed so as to be used as a guest bed for an additional person if he/she decides to stay over.

The sleeping pod is the one in the middle with the working pod above it. It aims to act as a comfortable cocoon enclosing the users of the house in its shell. The pod focusses on maximizing concealed storage capacity. The stereotypical match-box sized toilet is avoided in this tiny house with the provision of a well sized toilet behind the wardrobe which helps conceal the plumbing.
The working pod is at the top most level. It forms a perfect tiny office that is connected directly to the rest of the house. The back end of the pod is built in with book shelves to let it function as a study. The storage below the floor boards houses bedding which one can lay out to convert this space into a guest room.

The living pod is closest to the ground. It consists of a small pantry and a seating area with an additional balcony that can seat two people for coffee or a meal with a view. The sliding polycarbonate doors double up the living space as and when required. The seating is designed so as to be used as a guest bed for an additional person if he/she decides to stay over.

Living Pod
+3000 lvl

16

Storage

Mechanical and plumbing chamber

0   0.6   1.8
  0.3   1.2
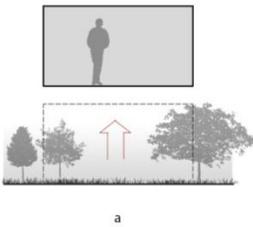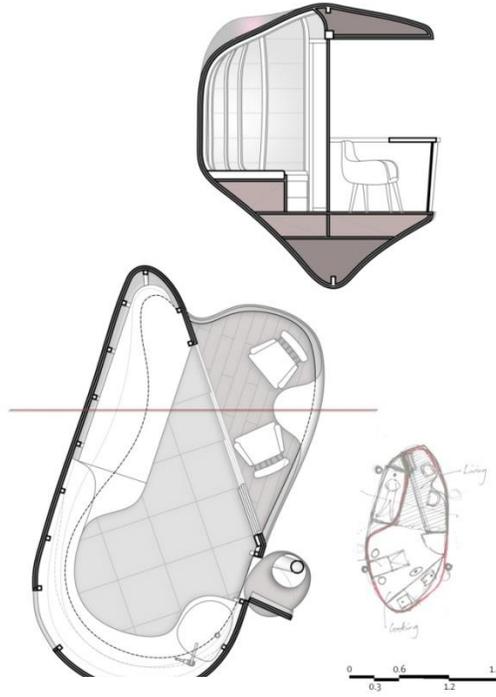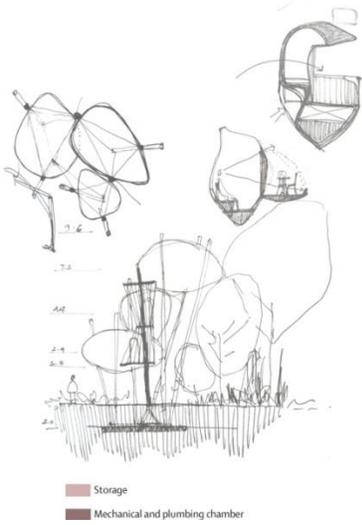
a

b
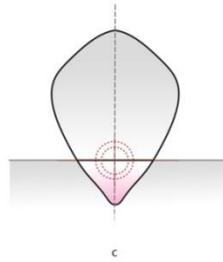
c

Student 4-5

Response_able

Developed at Master in Advanced Architecture 01 in Digital Matter – Intelligent Construction Research Line in 2015-2016 by: Students: NikolaosArgyros,Maria-KlairiChartsia, Sameera Chukkapalli, JakubHavlik

"[] architecture has always wanted more –to be one of us, self-aware, pulsing with life; it has always sought to mimic the living" -Living Bits and Bricks, Alex Haw, Carlo Ratti, AR, May 2012

Our objective in this project is to create dynamic relationships between structure, environment and human, by engaging new technologies and smart materials in our design. Our goal is to find the equilibrium where digital concepts intertwine with physical structures and how physical structures can enhance the environment as well as human perception and activity. We reconsider the mechanisms of kinetics in an environmental and human responsive structure where smart materials are completely embedded. We introduce Shape Memory Polymer as our case study of smart materials.We are looking for a programmed surface which reacts to wind and human decisions. Our concept is resumed to an interface system which stores real time local wind data and proposes optimum surface transformations for ventilation of space.

The user is able to choose the shape and the form of transformation as well as set his own needs so the system would propose new solutions.

smart material: Shape Memory Polymer

Properties of SMP
> Extent of deformation (%):up to 800%
> Density / g cm^3: 0.9 to 1.1
> Critical temperature / °c: 10°C to 100°C
> Recovery speeds minutes:<1" to several min
> Corrosion performance: excellent
> Processing conditions:< 200°C , low pressure
> Can be biodegradable
> Low cost
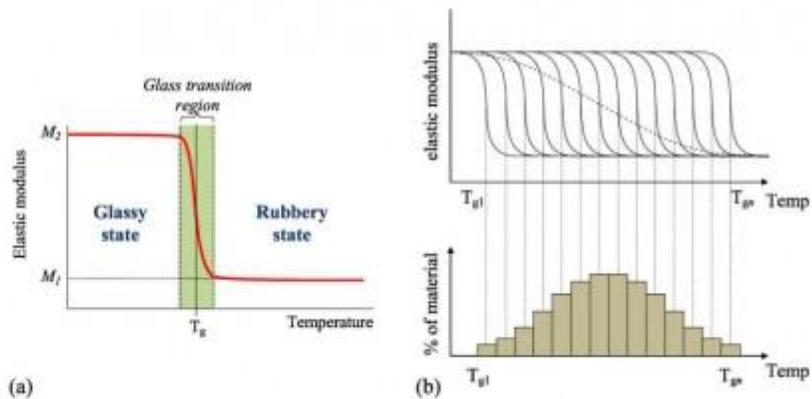
Properties of Veritex Composite
>Shape memory properties
>Strengthening fabric reinforcement
>Deforms and recovers shape repeatedly
>Transforms from rigid composite to soft elastomer
>Up to 80% elongation in elastic state
>Durable
>Machinable
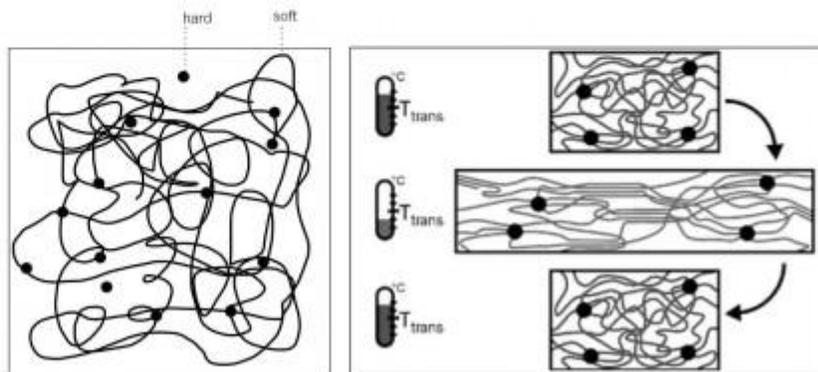
The hard segment acts as a frozen phase and the soft segment acts as the reversible phase.

Molecular movement while heating and cooling of the material.

SMP properties

SMPs possess two material phases. The glass and the rubber phase. In the glass phase, the material is rigid and cannot be easily deformed. When the temperature is greater than "Glass transition temperature", the material enters the soft rubber phase and becomes easily deformable. SMP recovers by heating the material above its glass transition temperature. In the glassy state all movements of the polymer segments are frozen. The transition to the rubber-elastic state occurs upon increasing the thermal activation, which means that the rotation around the segment bonds becomes increasingly unimpeded. In this elastic state, a polymer with sufficient molecular weight stretches in the direction of an applied external force. If the stress is applied for a short period of time , the entanglement of the polymer chains with their direct neighbors will prevent a large movement of the chain. So when the external stress is released, the sample recovers to its original length. If the stress is applied for a longer period of time, then a relaxation process will take place which results in a plastic, irreversible deformation of the sample because of slipping and disentangling of the polymerchains from each other.

SMP can be activated by temperature, pH and light. In this project, we focused on temperature as it is the most appropriate method for this specific polymer. In our first experiments we used heatgun; however it couldn't offer us a continuous, uniform stream of hot air. Our next move was to use nichrome wire: Nichrome wire is an alloy commonly used in heating devices, which it increases the temperature when electrical power is supplied. As the current travels through the nichrome wire, the resistance creates a voltage drop and, in turn, heat ($P = I2 * R$). We coiled nichrome wire
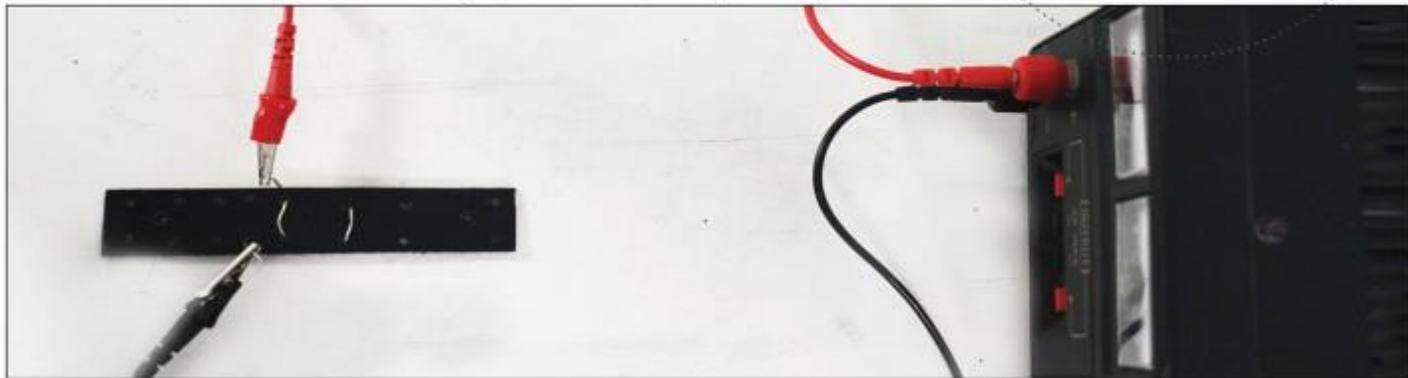
(0.03mm) around the SMP and we manage to get uniform and precise heat. The length of the wire used, as well as its thickness depends on the size of the SMP. The distance between coiling depends on the need of deformation.

Actuators are characterized as the forces which deform the SMP after its heated and becomes flexible. There are multiple ways to change SMP's shape; for this project we deformed the SMP by hand, by pulling with strings and by using soft robotic muscles.

Actuation: **Soft Robotic muscle**

>Soft Robotic Muscle I

>flexible
>force in deformation
>control of the angle

>fabrication process
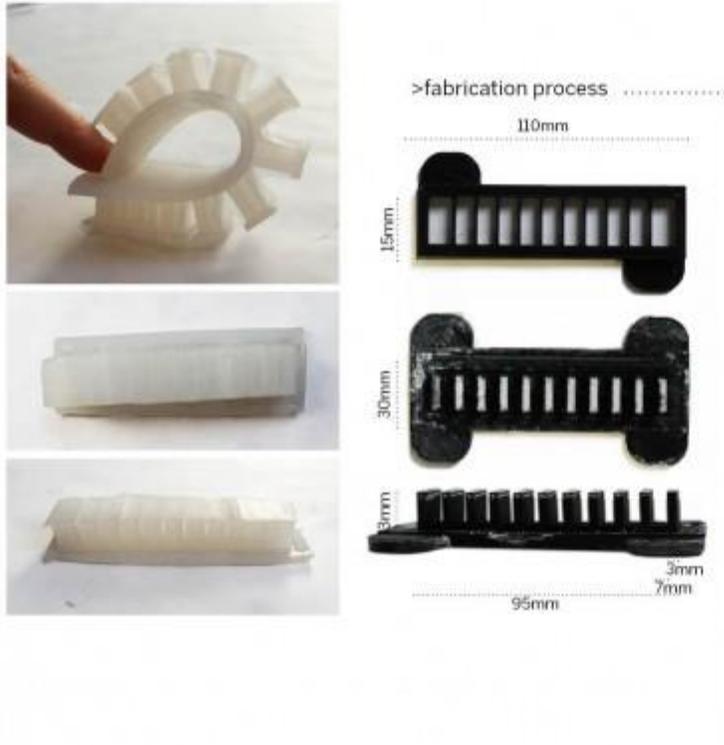
The decision to use soft robotic muscles was made due to their great properties as actuators. They are flexible and light, they expand in a high percentage in relation to their size, they present mechanical properties and the angle of deformation can be controlled (max almost 360 °.). The challenges for using soft robotic muscles is finding the right proportion between the pressure needed to initiate movement against the resistance of the members. Also finding the right kind of membrane stiffness which does not explode with the amount to actuation soft robotic muscle casted with ecoflex silicone pressure.

>Soft Robotic Muscle II
zero thickness muscle

>fabrication process

frame

layer of silicone

hydrophobic spray into a stencil of the desired shape

second layer of silicone
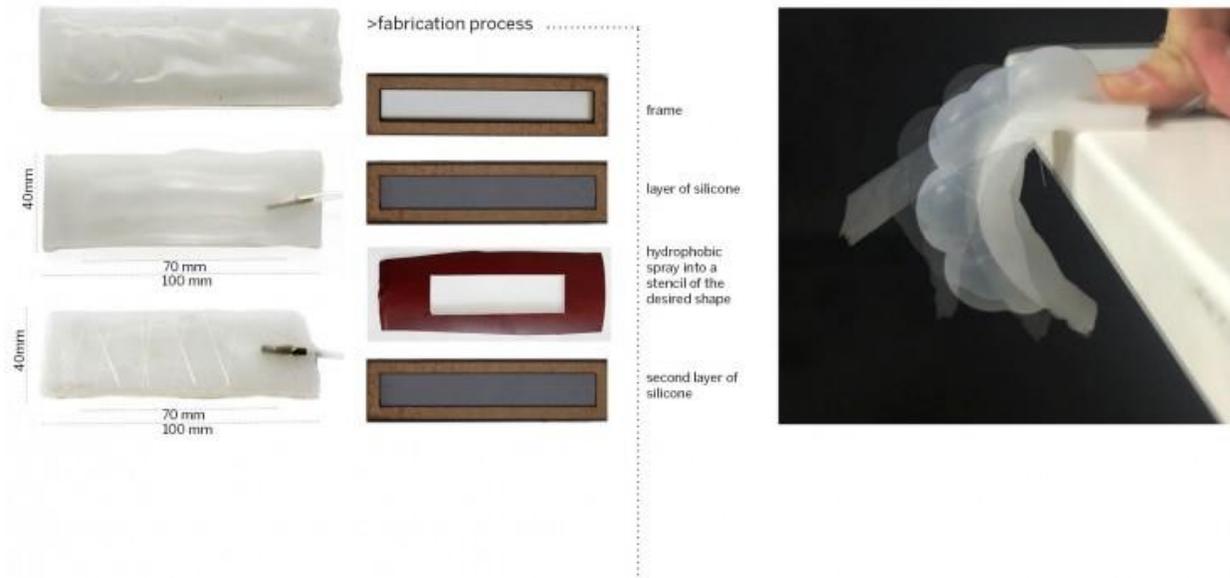
In this case we eliminated the thickness of the soft robotic muscle to zero. The thickness of the first layer remained the same (3mm) while the top layer is now 1mm. Different shores of silicone were also tested so as the soft robot muscle presented different behaviors. We observed that the muscles did not have enough force to actuate as they were weak. With increase in pressure the soft muscles exploded.

woodenmold frame applied on a surface
_silicone is poured into
_after it dries, a stensil is applied on top
_spray with hydrophobic spray
_remove the stencil
_pour second layer of silicone

Having already studied the way SMP can be activated as well as multiple actuators, we need also to test the properties that SMP has as a smart material. This research includes testing the polymer as far as its shape memory, tensility and mechanical performance. The Shape Memory Polymer which is used in all experiments is the Veritex Composite.
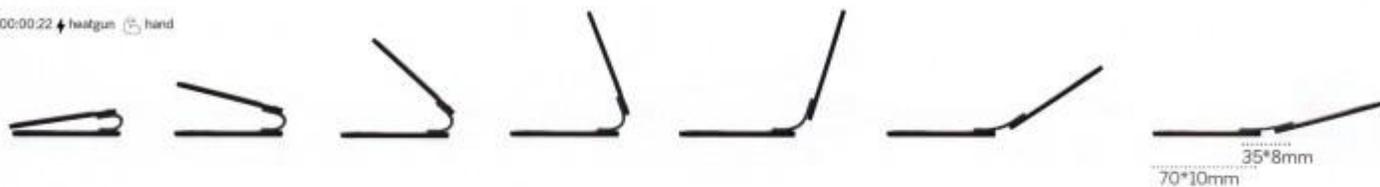

In those experiments, SMP was tested for pulling and pushing weight. In both set of experiments, the SMP was placed as a joint both in the inner and outer angle of the wooden sticks. In the case of small wooden sticks the SMP performed as expected. When longer

and heavier sticks were tested, the recovery of the SMP was not the same. Also, there was a difference in the duration of recovery state. In conclusion, the SMP can push weight quite easily, but when it comes to pull the same amount of weight, it is not strong enough to obtain a 100% its primary shape.
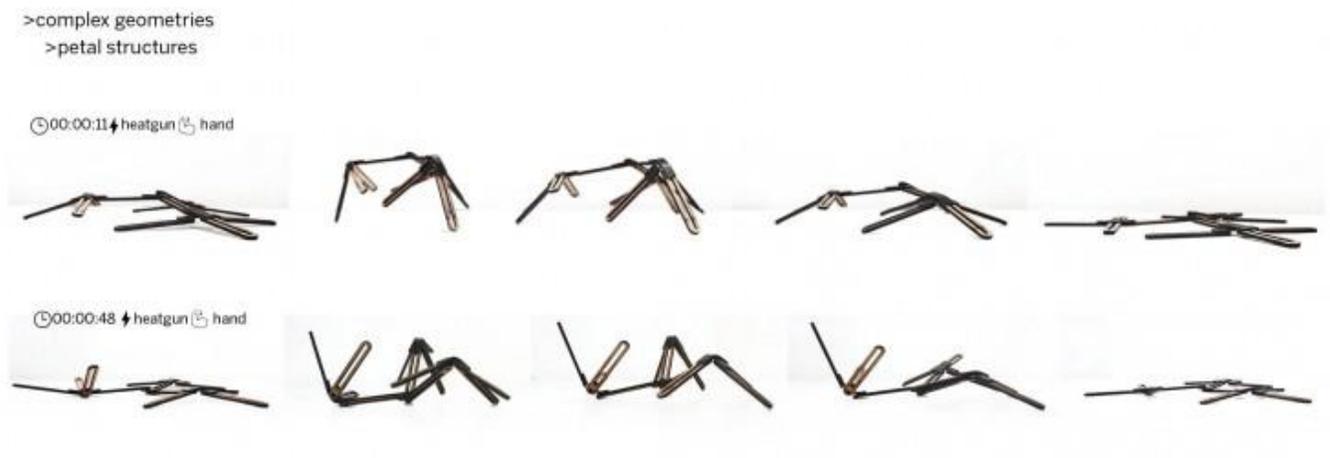
In these set of experiments, a combination of simple geometries were also testedbut now wooden sticks are crossed with a double SMP joint. In all three cases the SMP obtained a total recovery, however, there were some differences in time as seen on the comments. Gravity is a factor that affect the memory effect of the SMP. When the SMP has to pull weight against gravity, its performance is not efficient.

>complex geometries
  >polypropylene strip

SMP,
nicrome wire   0.8mm
                polypropylene   1.2mm
                                 polypropylene

circuit connecting multiple SMPs
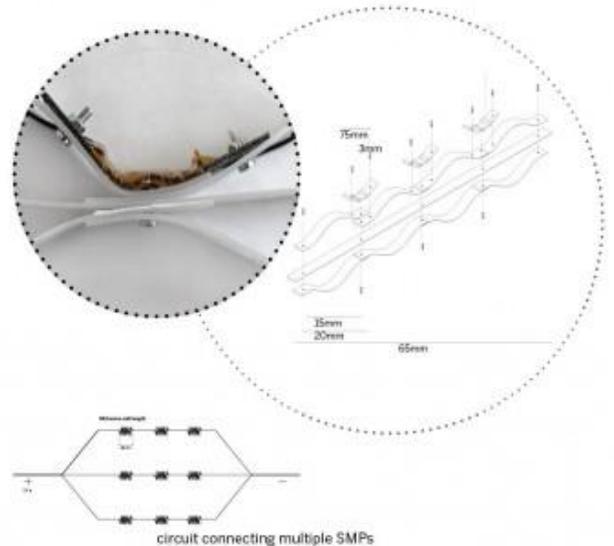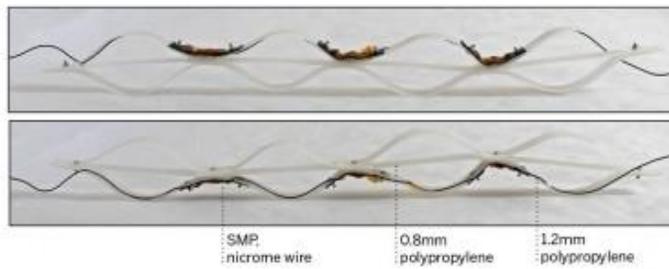
Following the complex scissors geometries, these experiments test SMPs placement in a row. We design a strip from three pieces of polypropylene, a material light and flexible while the SMP pieces were placed on the valleys of the design. First, one SMP was tested, while later, multiple SMPs were placed in every valley in a variety of combinations rotating to x axis. The target was to observe the deformation of the stripe which could lead us potentially to a surface organisation. The experiments were successful, as the SMP was strong enough to retain and push the stripe back to its initial position. The initial deformations were made both by hand and strings.

>complex geometries
>wooden modules array

The step forward to the previous experiment is to translate a continuous strip to multiple modules. Now the SMP acts as a joint and not only as an independent component to a set geometry. During the experiment, the friction between the module and ground caused a great degree of resistance in SMP performance. When a smoother slide was achieved, the SMP recovered 100% to its initial position. However, the geometry was problematic: because of the weight of the modules and their small width, occasionally they were falling on the sides. That brought the need to create a supportive grid in two dimensions to support and keep in place the strips performing.

By testing the SMP in multiple geometries and directions, we became familiar with its mechanical properties:

>When it reaches its glass transition temperature its strength is small: it cannot carry weight more than 1kg. On the other hand,

when the SMP is in room temperature it is an excellent retainer of weight and strength.

>Gravity is stronger than the pulling strength of the polymer: this means that the SMP can push towards gravity (because gravity is in favor of the movement) but it cannot pull weight against it. If different directions are combined, then the performance of the SMP is improved. As far as the activation is concerned, the nicrome wire is the most suitable as it offers precision and control of the heat as well as the possibility to connect multiple SMP together: electricity can equally be distributed through a series and parallel circuit.

After our last experiments with geometries which could potentially shape a responsive surface, we end up with the conclusion that our research should focus in three main topics: -research of the optimum SMP use as a joint _research on strong but controllable actuators _design focus on linear structures

Joint behavior

>join I

4V   12 pscl

soft robot muscle

nylon wire

wood piece

SMP
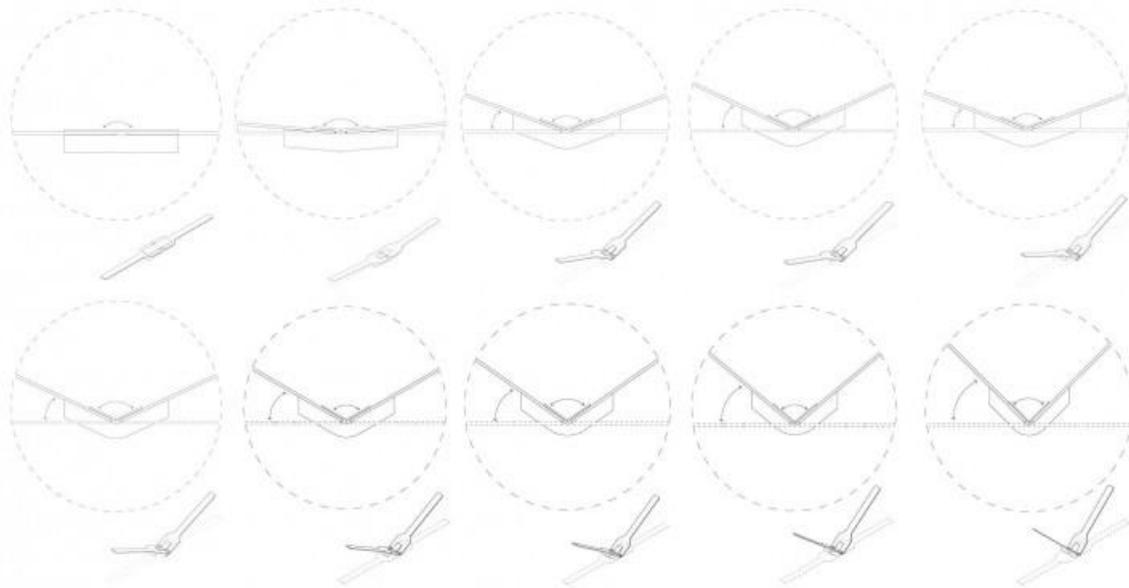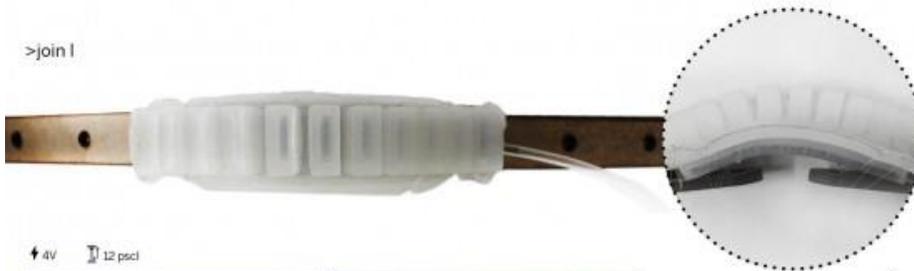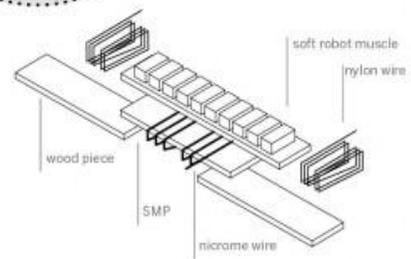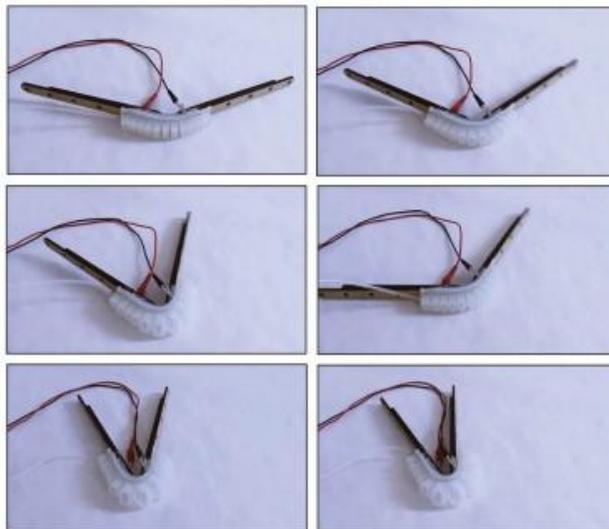
nicrome wire

>join II

⚡ 4V   🔋 12 pscl

⚡ 4V   🔋 12 pscl

soft robot muscle
(zero thickness)

wood piece   SMP   nicrome wire

>join III

soft robot muscle

wood piece   SMP   nicrome wire

⚡ 4V   🔋 12 pscl

>join IV

revits

SMP, nicrome wire

wood sticks

polypropylene live hinge

silicone connecting layer
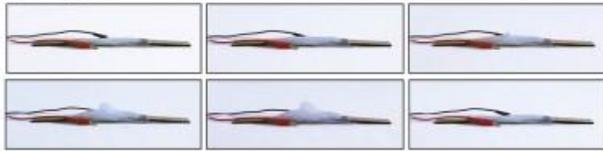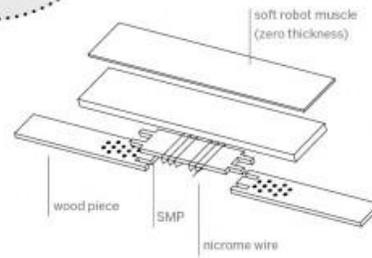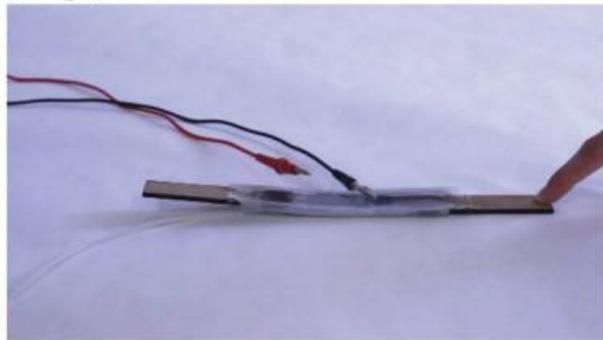
soft robotic muscle
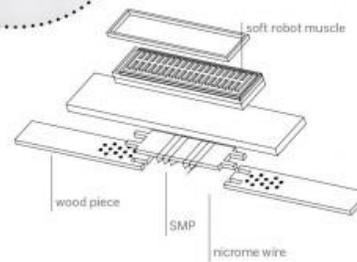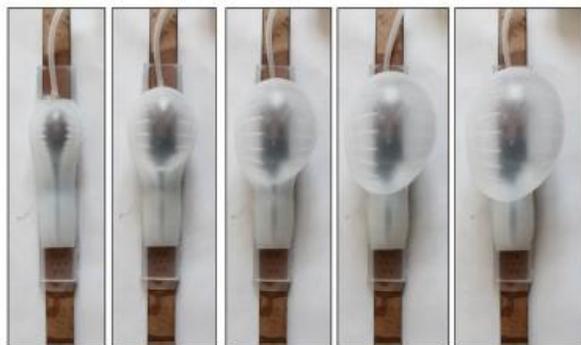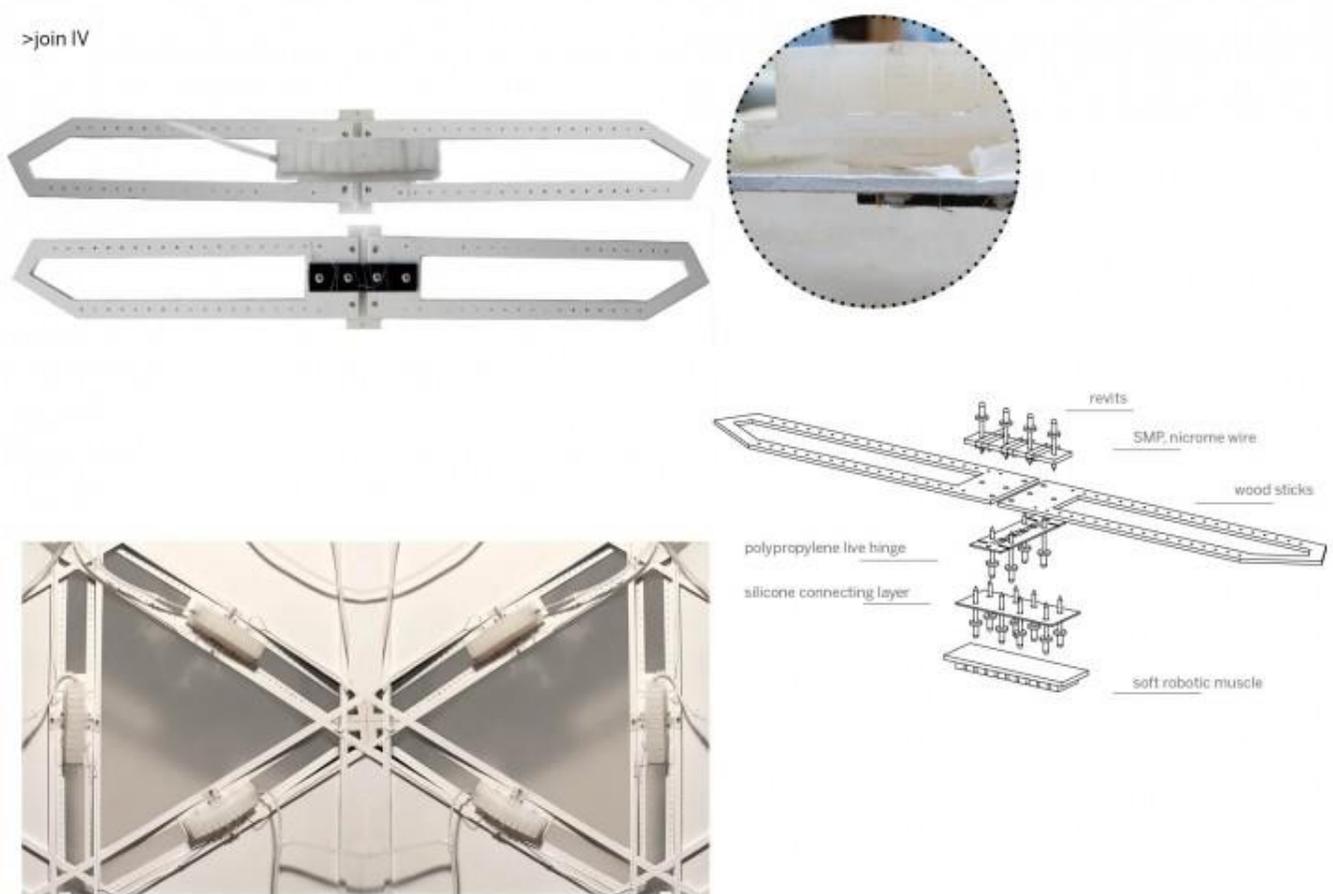
The final material system combines five different layers: the SMP coiled with the nicrome wire, the wood sticks, one polypropylene live hinge, one layer of silicone and the soft robotic muscle. The way they were joined together is via revits. The revits are used because of their ability to keep the layers together without moving (an issue we confronted with screws) as well as their light weight. The reason which led us to this solution was to achieve the best performance of both the SMP and the soft robotic muscle at the same time, eliminating any resistance, keeping the parts together and connecting them with a supporting frame.

joints in linear array
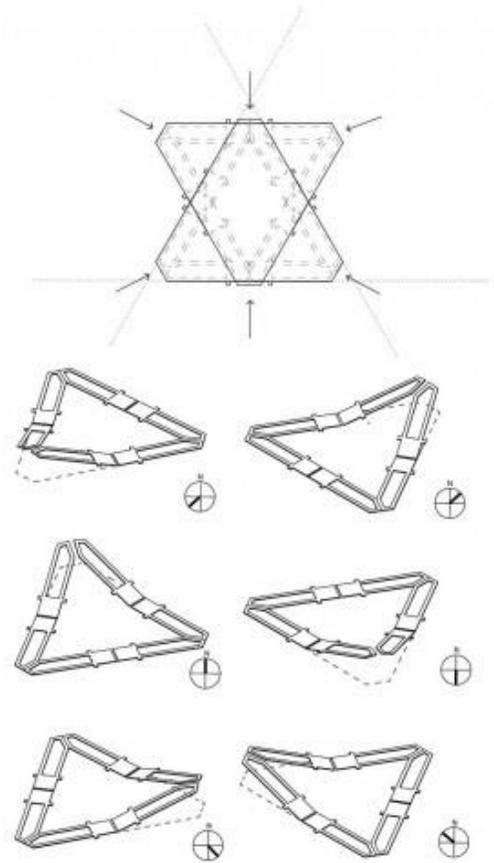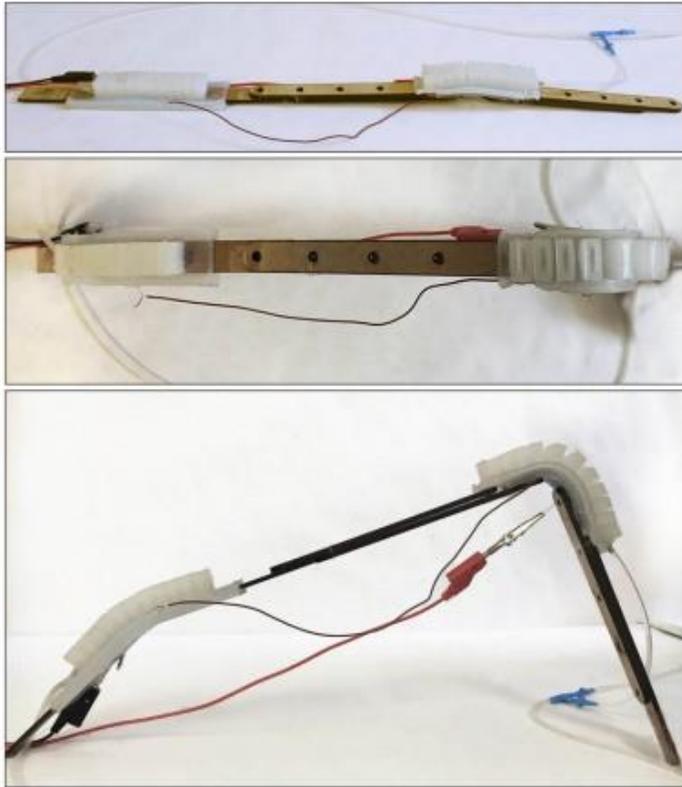
The design process concerns a study of organisation of space in grid. The objective is to enhance wind from the maximum possible directions. The way the joints are arranged in space would shape this system while their performance will release an organisation in adaptive panels. The gaps between them would be filled from fixed components, while this system would be supported by a framework which will host the necessary technical equipment.

framework   joints   fixed panels   moving panels
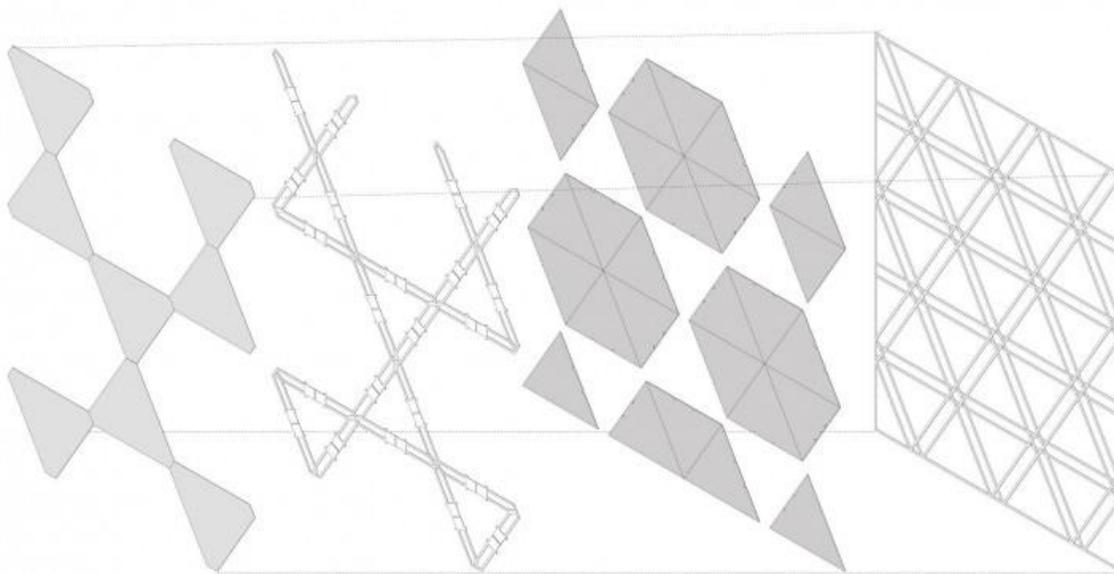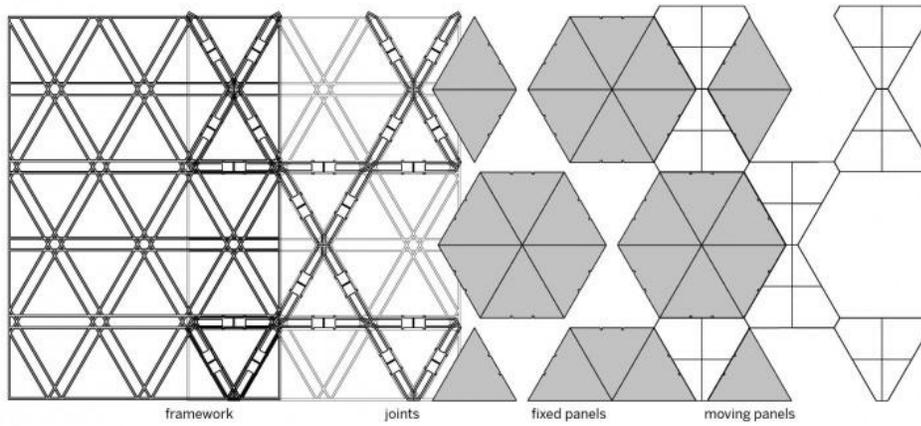
Some of the triangular panels which cover the grid are fixed, some other are moving according to the wind flow, as explained

before. The attached wooden sticks have the maximum possible weight that the muscle and the SMP can pull and carry, and dimensions which can support and lift the skin a panel 50*50cm. The fixed panels are wooden (mdf 2,5mm) while the adaptive are supported from the joints and covered with silicone sheet. The performance of the panel concerns the opening of the angles rather than the sides of the triangular shape.

mdf 2.5mm silicone sheet

fixed panel   moving panel

soft robotic muscles connect
in rows/ directions

each SMP is wrapped with two
nicrome wires which are con-
nected in pairs, to open each
side of the panel
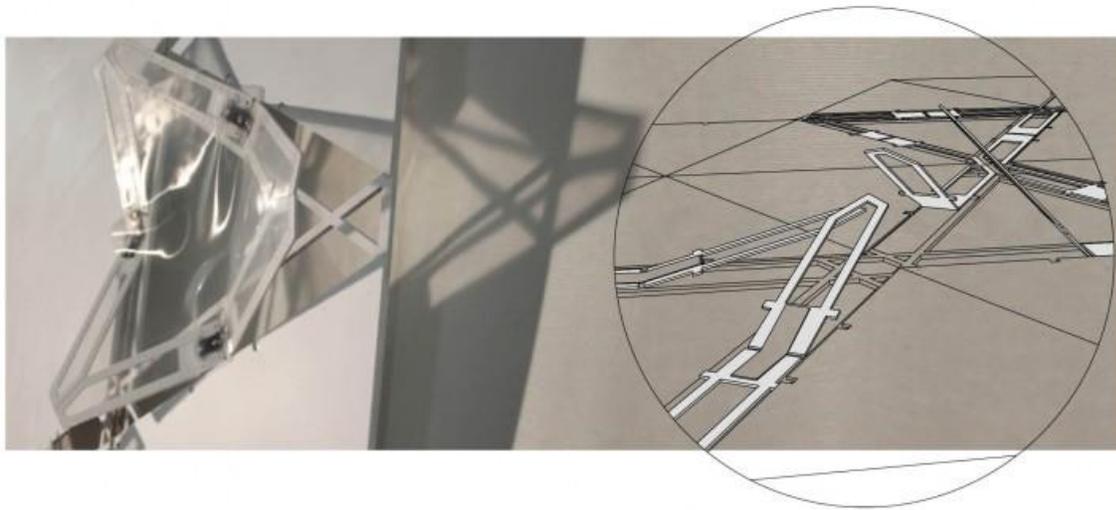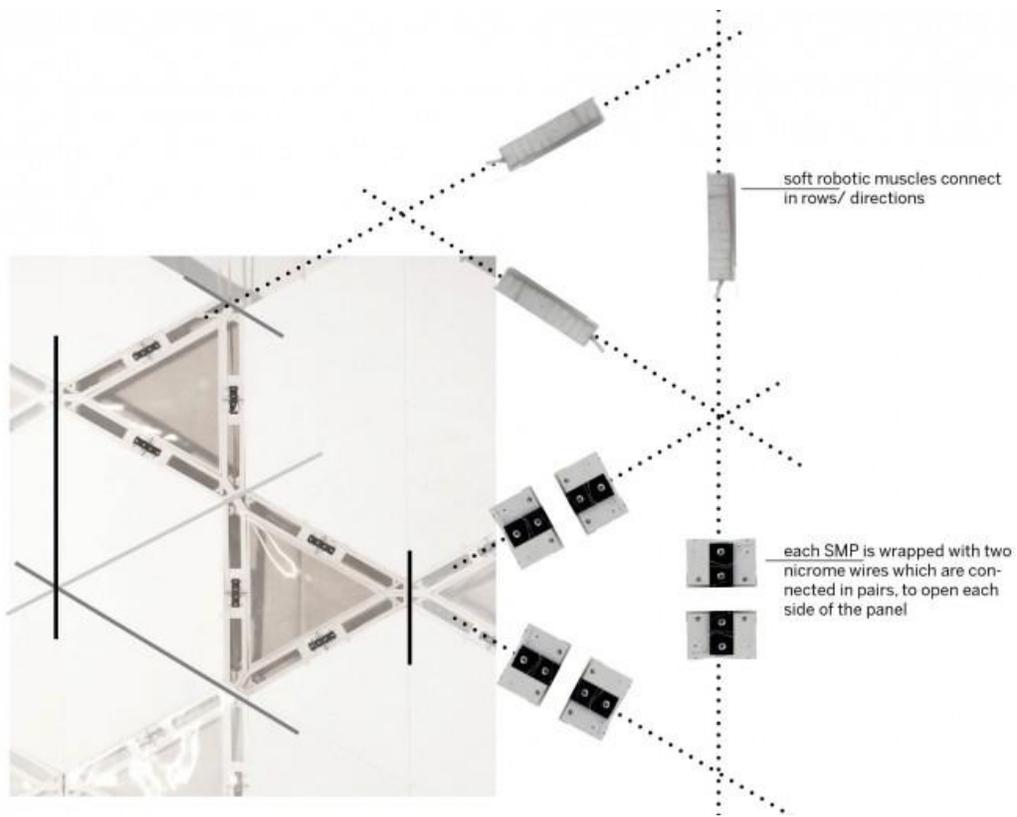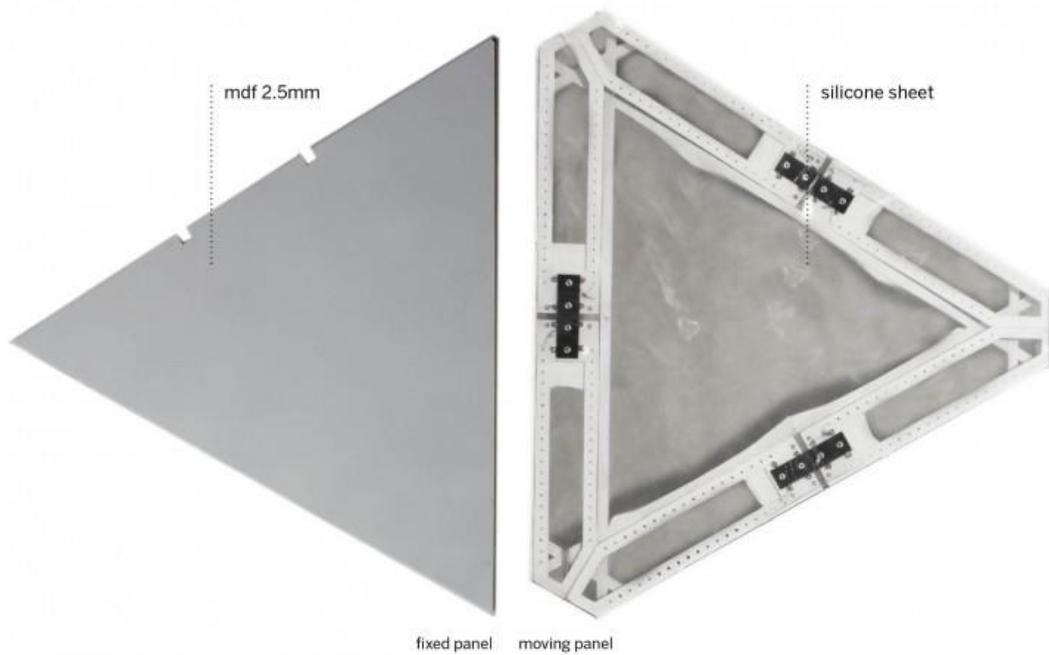
When wind comes from a certain direction, an interface provides the

necessary data so joints are activated to open the panels. Each panel works individually but at the same time connected in a larger system which permits the channeling of the wind in the whole area of the surface. The panels which will open or stay closed depend on the air and the electricity provided to the muscle and the SMP. If the SMP is heated then the muscle deforms it. If not, then the panel stays closed as the SMP retains its position no matter the soft robotic muscle activation.
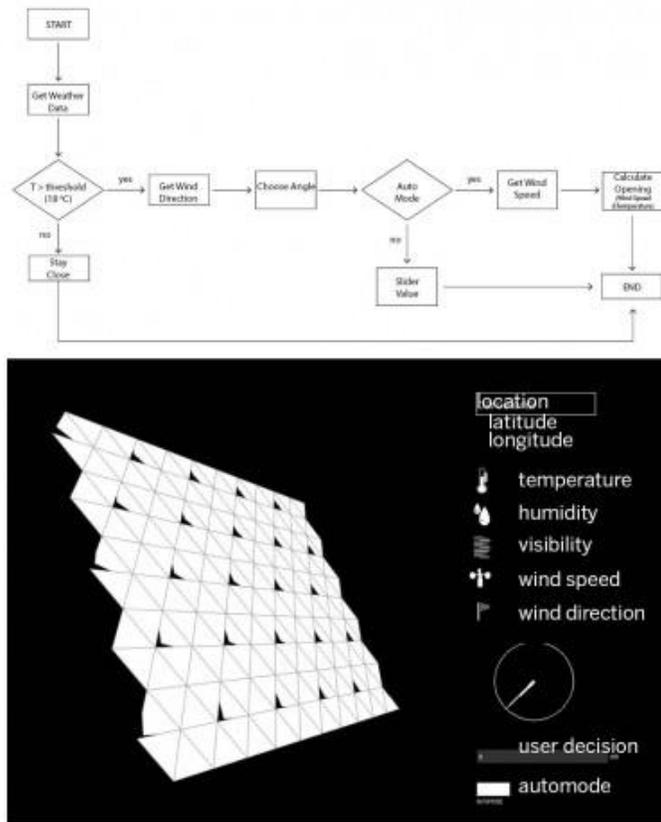
With the use of Processing an interface was developed which based on the location, will inform the system for the best solution to regulate the comfort zone through natural ventilation. What we aim for is a programmable skin where the user could also participate and

express his own needs and desires. While the interface receives real time environmental data and proposes the optimum solution for temperature regulation, the user is able to change the results by introducing his own standards of comfort zone. The improvement of this interface can lead us to a complete calculation and control of environmental factors (natural light, rain collection etc)
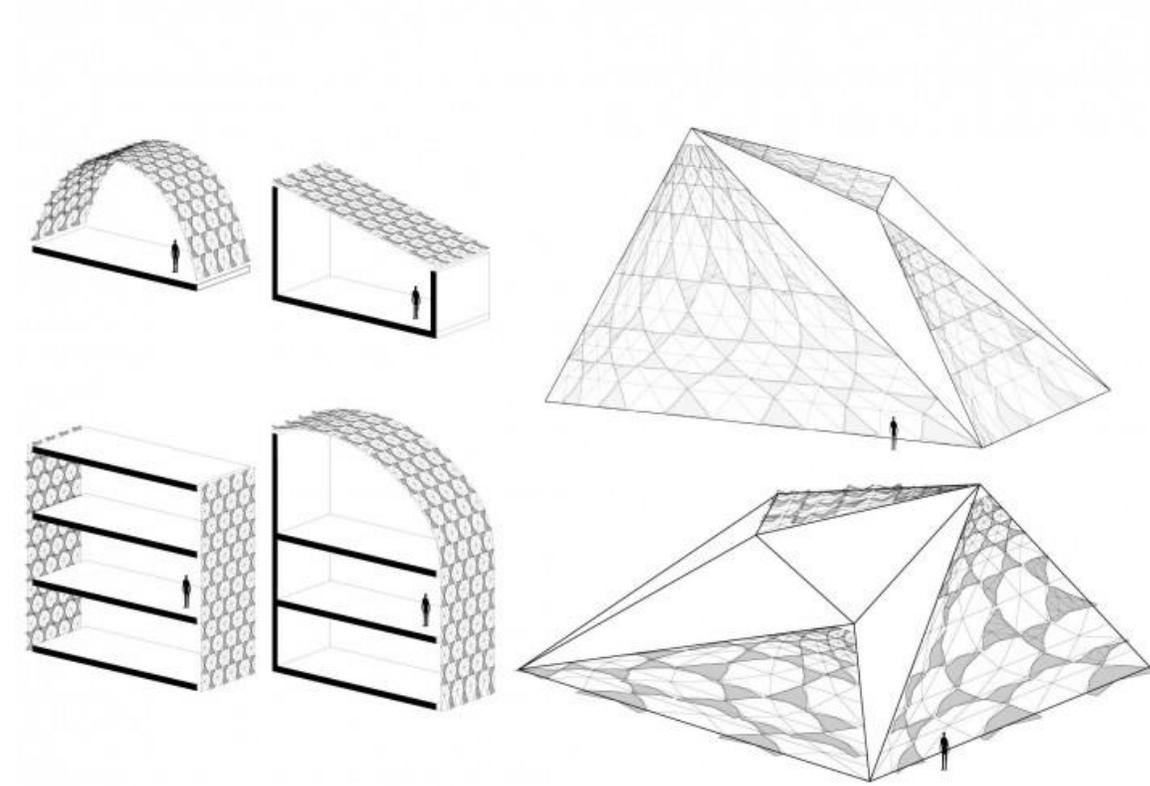
This skin can be applied in different conditions and buildings; it can be used as a ceiling, as a facade or as a combinations. Furthermore, with an improved structural adaptation it can also stand on its own as a pavilion. The design allows adaptations as far as the scale of the panels and their position is space is concerned: multiple and different parameters can be applied on depending the use and the environmental conditions of specific locations on the map.
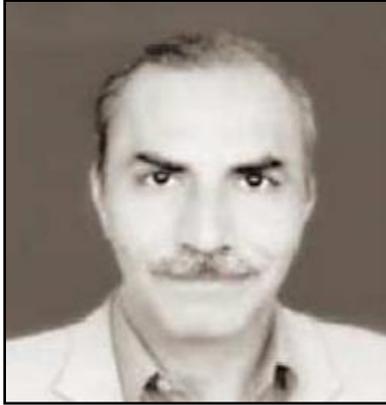
Letter from the Chairman's Desk

By Sunil Bhatia PhD

L Every human being's biggest fear is failure and it was experienced by our ancestors from primitive times by witnessing the role of failure that even cost life of fellowmen either under attack of wild animals or did actions that proved reason of death , created extreme insecurity. That was era of survival and human's entire exercise was focused to avoid death proved reason of driving force for progress and devised techniques by observing others for meeting specific challenges . In modern times, form has changed but same intensity of fear of failure is still persisting in the mind and visible in undercurrent of our behaviour. Gradually as our knowledge improved ancestors termed those actions of saving life or not to be food for others and actions were to identified others food by clubbing as 'survival instincts' but as it was noticed that everyone had the same pattern for survival, was called common sense. When survival was governed with brain and it saved the life then it was declared knowledge and intelligence of the person and that was visible in designed concept of hunting either when applied techniques of overpowering by sheer physical strength or by understanding the weakest but vital and crucial body part for attacking or use of noise by drumming for confusing or art of fire management or killing with tools or covering the pit with such way it helped in trapping or presently by fire weapons and where other

side it was handle with impulse because of hormones or reflex actions it was treated as basic instincts. Instincts have no grammar and set procedures but it works for safety and rare occasions it fails. Instincts develop as person encounter repetitive failures or lives in extreme poverty in social terms or hurt deeply in close emotional relations. It helps in either achieving peak of successes or allow remain to face extreme failures. Where other side intuitions are knowledge based has element of planning and allows living moderate lives. Instincts are the foundation for creativity where intuitions help in improvements of developments. First phase of human survival was based on instincts later stages of developments were because of intuitions. Acquiring instincts is art for few and it is still steering the growth to new height where intuitions is with masses simply allow learning for management.

Why does everyone wish to live longer? Why does inner urge is struggling for achieving longevity? That unknown urge existence in everyone is 'life' and it is the perennial source for progress of the humans as it vanishes, person no more exist in this world and bound to achieve death sooner or later. Is longevity not cursed? Nature takes the interest till living beings have not produced next generations otherwise consider redundant .Why do we devise new techniques to overcome these failures? Why do we harm or even destroy others for our existence? Why do we blame others for our failure unlike animals never complaint and mutely watch the failure of fellow member of herd killed by others. Why do humans have unique sense of 'need' for other fellow who is in trouble and even does not fear in sacrificing their life to protect? Is it not that prevailing sense makes us social animal?

Is it not we wish to avoid death? This exercise has given us a new dimension in our thought process and responsible for designing various tools and safety measures. We are the only living beings that think beyond survival because our ancestors were no more dependent on basic instincts but applied mind in search of beyond survival as animals till today does every action limited to survival. Our ancestors gradually realized that inspite of mighty force for succeeding some elements of failure was not missing, it appeared from nowhere but presence was felt everywhere and that frustration led to think beyond human capabilities. It is still mystery till today 'why did humans think failures were because of external forces?' Other living beings completely rely on their internal capabilities and do not have thinking capacity beyond their body.

Unknown external factors were so powerful that too without any established face and realized no one could beat individually or collectively and it surfaced from unexpected place and time, that horrifying imagination made the humans sublimed and completely surrendered to omnipotent , omnipresent force and thought it was their final destiny. That created adverse impact on human mind and came under the influence of thought of cruel unknown force responsible of killing and no one could escape from it. Influence of that cruelty made person passive but sitting idle was not solution and thought to fight and side by side look for escape from gripping clutches of death. The moment our ancestors accepted this philosophy 'it is beyond our imagination to beat that unknown force and only way is to submit because aggression has high elements of failure and winner only survive and taken as not fruitful path.'

That thought of submitting proved reason of birth of concept of 'love' emerged over aggression where it shaped our hatred as

survived after repetitive failures. Love did never exist in beginning of human lives and it was not creation of external force but it was responsible for filling vacuum because of hatred. Later on it proved binding force for humans and laid the foundation of social life. Love is manmade and later on created various creations. Cruel image of external force disheartened the humans in general and not ready to counter such challenges but dim light of love was shining at horizon for embracing new face of humanity. Then some people started saying that external force is kind and even send his son or messengers or incarnate for guiding us for victory over evil forces. That added new dimension in our thought that helped in progress but simultaneously destroyed the real thinking power enjoyed by humans in absence of knowledge of cruel external forces. That ruined more in utilizing optimum level of potential of humans and what man was capable for achieving never able to achieve. Our ancestors tried their level best to come out of such anti forces and by products was concept of not to come under such influence helped in designing various tools for making life better for advancement . That concept made the people for forgetting about death and it was biggest achievement of mankind. That was real dynamo of progress but omnipotent forces were still retarding the progress and humans still struggling for coming out of such non entity forces.

Different level of thinking make an individual unique and it has helped in exploring the problems in different angles where animals normally think alike or little and cannot form problems to solve . Animal kingdom has diversity in species or limited to biological levels that equals successes for survival where humans wish to maintain the mutation of genes within the group for better offsprings but not at the biological levels but focussed on thinking

level that shifted to what I own to what I can. Ordinary people could not come out of such fearful thought and devise to keep it away from the destructing evil forces by hanging fresh lime with green chilly at the entrance door . Even some people fixed horse shoe at the entrance for keeping evil forces at bay. Some tribes used specific bushes for hitting where possible attack of evil forces. After the discovery of fire even some places used smoke for neutralizing the effects of evil. In some tribes a person who was respected by all acquired art of controlling such forces and to call such forces as it was in human shapes or animals forms did absurd actions pointing toward sky as they were residing above. That was the beginning of black magic. As concept of supreme power for creation and destruction was formulated that helped in designing sacred items like sprinkling of sacred water or cross. They were having white magic where secret was open and generally used for entertainment where tricks were creating illusion and black magic where mystery was still not open. As they explored for knowing that offshoots gave us mathematics, physics and other areas. When things are moving these it generates anti force that was called friction and before the scientific knowledge it was considered evil forces that was stopping us. Lightening in the sky was wrongly interpreted by some smart but cunning people, used this phenomena for their own benefits by creating a false imaginary story for creating artificial fear among ignorant masses or lunar or sun eclipse was scaring till its mystery was not understood by people?

 Idea of 'What would happen in future if we survive and how to lower the effects of evil forces not to harm? ' created curiosity to know in advance was the reason to avoid the haunting failure which prove reason for death helped in designing effects of stars and birth

charts , zodiac sign, even numerology and palmistry. Entire rituals of pleasing the almighty according to their experiences later termed as religious and spirituals beliefs helped in laying the foundation of different religions. Why did people think some product auspicious? My theory is no product is bad or good but some products are designed and at the immature stage and scope of improvements is still but what we called good product those have already attained mature level and little scope of improvements is possible. To support religions various products were designed .Later on it turned to religion base industries.

A new areas are marked that is still in practise, a part of it witchcraft where ignorant people believe that it is not always absurd external force that is stopping. It was deliberately wishes for our failures would protect and successes will bound to attract more trouble and do not have capability to handle that situations but inner desire to succeed so strong blame others who were present nearby for failure and declared those person evil force. In some sections nature of human that most of the failures were invited by association with woman and called witches. Humans were the only creatures believed and continue to do so that living with certain woman invites never ending problems and to avoid they do not believe in marriage partner and follow celibacy. Even mother protect the newly born child from malafide intentions of visiting people by applying black spot on side of forehead where it should not be easily noticed by others because belief it is difficult to distinguish intentions of people. Witches were supposed to be learnt who has acquired the divine power for curing the ailments but generally believed they control special power of unsatisfied, untimely souls and direct for fulfilling our desires

Some people realized that nature of humans is adventurous needs excitement, character of luring, greed to have more , hatred and enjoys by depriving others and temptations that pushed to person to slip toward trap of death and termed as evil forces. Countering was designed for greed with concept of charity was introduced, hatred with love and temptation or luring was declared unethical and adventure with cautions and safety. Even people designed prayer where chanting of hymns or mantras for praise of almighty control the desire for deliberately depriving others. Some religions are propagating the body paint for protection of harm from evil forces. It is practise in some section who are believers in specific religion of applying sacred ashes of rituals on forehead or married woman applies red vermin of part of head hairs for protection from evil.

Fear of evil forces was so strong that they used to paint in ignorance their mud houses with mud. That exercise of painting was helping in settling dust as well kills close by harmful insects. Another fear was animal's bite that was responsible for death because of rabies or poison or large animals were treating human body for food and humans declared these as evil forces .Later on to avoid they designed house for protection from attacks or eliminating possibility of managing entering house by designing cot for sleep for avoiding ground where attack was easy. Mosquitos net was designed to protect from mosquitoes that could harm.

We are still governed by blind same faith and absurd ideas, for justifying we generally counter with absurd arguments and logic. No one can prove their faith but try to convince by irrational arguments. There is an open faith that is absurd but we keep believing and it is guiding our progress and designed control as we called ethics and

morals. Design of vague scare statue in standing crops to scare birds from damaging is not effective method but sometime it works .Effects of gem stone in changing our corrective action for achieving gaols How can stone effects our thought process? Is it not absurd idea? Absurdity is essential part of life.

Evil or antisocial people or those actions are not respected in society are known as evil forces has contributed a lot for progress. Gambling has given us probability, game theory or where killing by tools or stealing or by proving supremacy by snatching has given us entire range of war weapons. Unwanted pregnancy gave us idea of abortions, pills and terminations by eating fruits. Evil forces are dangerous when it joined hands with religion and a new type of social evil appears .In India burning of widow was approved by religions , reason was not to share the hereditary property with her.

I am thankful to Arch Sameera of Need Lab for accepting our invitation for Guest Editor.

AMBERT Academic Publishing has published book "Design For All, Drivers of Design" author Dr. Sunil Bhatia of Design For All Institute of India and it is available on www.morebooks.de one of the largest online bookstores. Here's the link to it:

https://www.morebooks.de/store/gb/book/design-for-all/isbn/978-613-9-83306-1

This book is dedicated to our esteem readers, contributors and well wishers.

With Regards

Dr. Sunil Bhatia

Design For All Institute of India

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dr_subha@yahoo.com

Tel 91-11-27853470®

Forthcoming Issues

September 2018 Vol-13 No-9

Dr.Bijaya K. Shrestha received Doctoral in Urban Engineering from the University of Tokyo, Japan (1995-'98) and Master in Urban Design from the University of Hong Kong, Hong Kong (1993-'95). Having professional experiences for almost three decades he had served to numerous organisations – Government of Nepal, educational institutions, private sector and United Nations Centre for Regional Development (UNCRD): Disaster Management Hyogo Office, Kobe, Japan, besides consulting works for ADB, UNICEF and UN-Habitat. His contribution in establishing Post Graduate Department of Urban Design and Conservation at Khwopa Engineering College in 2007 is noteworthy, where he served as Head of Department for two years. At present, he is engaged in ADB supported projects and research works in different Architectural Schools, besides editing international journals and conference papers. He is the recipient of numerous gold medals and prizes for his excellent academic performance. He was decorated by 'Calcutta Convention National Award 2006' by Indian Society for Technical Education for his best

paper at the 35th ISTE Annual convention and National Seminar on Disaster – Prediction, Prevention and Management. He has already contributed more than ten dozen of papers, published in various forms: book chapter, international journals, conference proceedings, local magazines and journals including in local newspapers. He is regular writer for

October 2018 Vol-13 No-10

Dr. Sugandh Malhotra has over sixteen years professional experience in industrial design and automotive styling industry. He has worked on design projects for marquees in the industry that include Honda R&D, Hero Global Design, Hi-Tech Robotic Systemz Ltd., SETI Labs Berkley, Aprilia Motors Italy, Bombardier Canada and most of the leading automotive and consumer brands of India. He has been instrumental in design of over 18 techno-commercially successful launched products at a pan India level. He has won many International and National level design awards. Dr. Malhotra takes keen interest in teaching design and has been mentoring students from many leading institutions such as IIT Delhi, IIT Roorkee, SPA Delhi, Lady Irving College, IILM, Pearl Academy among others. Currently, he is working as an Assistant Professor and the Coordinator of MVD program in IDC School of Design at IIT Bombay. His research interest areas include design research methods, future design possibilities, trend research and design forecasting and intelligent mobility systems.

November 2018 Vol-13 No-11

Asst. Professor Yasmeen Abid Maan (Associate MIAP, MPCATP) PhD Scholar (College of Art & Design, University of The Punjab) M-Phil (Arch), University of The Punjab, B Arch (UET, Lahore) has accepted our invitation for Guest Editor.

December 2018 Vol-13 No-12

Robert Nichols , an Owner of Nichols Design Associates, Inc., Washington, DC has been extensive experience in Architectural Design and Universal Design for over 35 years. His expertise within this area of specialty includes building surveys and ADA Accessibility checklist for the public and private clients. He is President and Chairman of the Board of World Deaf Architecture, Inc. (WDA), a new knowledge group of American Institute of Architects (AIA), since a non-profit organization was established in 2016. Received B.Arch. & M. Arch. degrees in Urban Design under the leadership of Prof. Colin Rowe from Cornell University will be our Guest Editor.
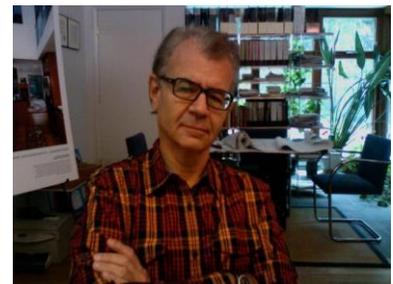
Obituary:

Kamla Bhatia(09-01-1934—18-08-2018)

What I am today it is all efforts of my mother (born at Jhelum, undivided India) and studied till 8th standard as bright and toper student at Arya Samaj Balika Vidaylya Machine Mohalla . She witnessed partition and life completely changed and could not pursue her studies.

My mother believed in high values and never allowed in indulging in criticism for anyone. She propagated ideals of hard working with honesty and never missed passion in her life and smile was never fading even in difficult days.

She married in her teens to Dev Raj Bhatia who was very handsome , carefree with large heart from Gujranwala (Undivided India) and fond of good dress and keep updates by imitating screen hero was his teen life. His life was acting in drama and meeting performing artists gave immense pleasure. They lived together for more than six decade and were blessed with two sons and two daughter Anil, Nina ,myself and Babita. My elder brother and sister witnessed their real struggle for raising children and that too for civilized and educated who can set an example for younger.

While writing my tears are rolling down not for losing them but it is difficult for any ordinary human for carrying forward their values . I feel they are around me and continuously encouraging me 'work hard and that should benefits the poorest of poor in this society'. Both were reason for publishing international publication for free and I received tremendous encouragements from others because our basic foundation of binding was for betterment of society

Cannot forget till I am alive

Dr. Sunil Bhatia

Son who wish to be like you

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Sunil Bhatia

Design for All

Drivers of Design

Expression of gratitude to unknown, unsung, unacknowledged, unnoticed and selfless millions of heroes who have contributed immensely in making our society worth living, their design of comb, kite, fireworks, glass, mirror even thread concept have revolutionized the thought process of human minds and prepared blueprint of future. Modern people may take for granted but its beyond imagination the hardships and how these innovative ideas could strike their minds. Discovery of fire was possible because of its presence in nature but management of fire through manmade designs was a significant attempt of thinking beyond survival and not

doubt this contributed in establishing our supremacy over other living beings. Somewhere in journey of progress we lost the legacy of ancestors in shaping minds of future generations and completely ignored their philosophy and established a society that was beyond their imagination. I picked up such drivers that have contributed in our progress and continue guiding but we failed to recognize its role and functions. Even tears, confusion in designing products was marvelous attempt and design of ladder and many more helped in sustainable, inclusive growth.

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Design for All
Drivers of Design

Sunil Bhatia

LAMBERT Academic Publishing

it is available on **www.morebooks.de** one of the largest online bookstores. Here's the link to it:
https://www.morebooks.de/store/gb/book/design-for-all/isbn/978-613-9-83306-1

The Ultimate Resource for Aging in Place With Dignity and Grace!
Are you looking for housing options that are safer and more accommodating for independently aging in place? Do you want to enjoy comfort, accessibility, safety and peace of mind – despite your disabilities, limitations and health challenges? The help you need is available in the Universal Design Toolkit: Time-saving ideas, resources, solutions,and guidance for making homes accessible.

This is the ultimate resource for individuals and professionals who want to save time, money and energy when designing, building, remodeling or downsizing a home. The Universal Design Toolkit will help you take the steps to design homes for your clients or yourself while eliminating the costly trial and error challenges you'd inevitably encounter if faced with this learning curve on your own.

Rosemarie Rossetti, Ph.D., teamed with her husband Mark Leder in creating this unique Toolkit. They bring ten years of research, design and building expertise by serving as the general contractors for their home, the Universal Design Living Laboratory– which is the highest rated universal design home in North America.

Within the Toolkit's 200 richly illustrated pages, you'll find:

Insights that distinguish *essential* products, services and resources from the *unnecessary*.
Proven, realistic tips for finding the right home.
Home features you need to look for. Nothing is assumed or left out.
Handy home checklists and assessments.
Interview questions to help you hire industry professionals with knowledge and experience.
Photographs that provide a frame of reference to inspire, clarify and illuminate features andbenefits.
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Product Description

In this book, Elivio Bonollo takes us on a 'learning journey' about design including a scholarly explanation of the characteristics and power of the design process. It provides valuable insights into the attitudes, knowledge and skills that underpin the design discipline at an introductory level of expertise, and has been developed to meet the needs of aspiring designers in many areas including industrial design, design and technology, art and design and architecture. Elivio uses an operational model of the design process - along with related educational strategies, learning outcomes and an ordered set of design briefs - to develop a systematic, problem-based method for learning design from a first principles viewpoint. The beauty of this approach is that it brings structured learning to aspiring designers whilst being mindful of diverse cultures and backgrounds. Each part of this book encourages self-expression, self-confidence and exploration: it is has been carefully designed to take the reader on a highly motivating journey of design thinking and creativity, supported by excellent sample solutions to design problems, lucid discussions and extensive references. These solutions, developed by design students, serve as novel examples of how to solve real problems through innovative design without restraining creative freedom and individual personality. The design learning method and strategies in this book will greatly assist design and technology teachers, students of design, aspiring designers and any individual with an interest in professional design practice.

I cannot recommend this book highly enough, it was a complete lifesaver throughout my undergraduate studies and honours degree and now continues to serve me well as I move into industry practice. The content is easy to understand and follow, providing a practical guide to understanding design principles and every aspect of the design process. It includes great project examples and reflects the wealth of knowledge and experience possessed by this accomplished educator. I have purchased multiple copies of this book for peers and would suggest any student who is studying a design discipline to pick up their own copy as this has quickly become the most useful book in my design collection.

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⭐⭐⭐⭐⭐ A 'Must Have'.

By Amazon Customer on 7 April 2016

As a Design Education professional of many years standing, I endorse this book without reservation. It is comprehensive, lucid and above all, useful in a very accessible level at the coalface. Professor Bonolo has an enorrnous cache of experience as an engineer, designer and design educator and his experience is well demonstrated in this book. A 'must have' for anyone in the business of educating or being educated in the product design arena.

TAPPING INTO
HIDDEN
HUMAN CAPITAL

How Leading Global Companies Improve their
Bottom Line by Employing Persons with Disabilities

DIS **ABILITY**

DEBRA RUH
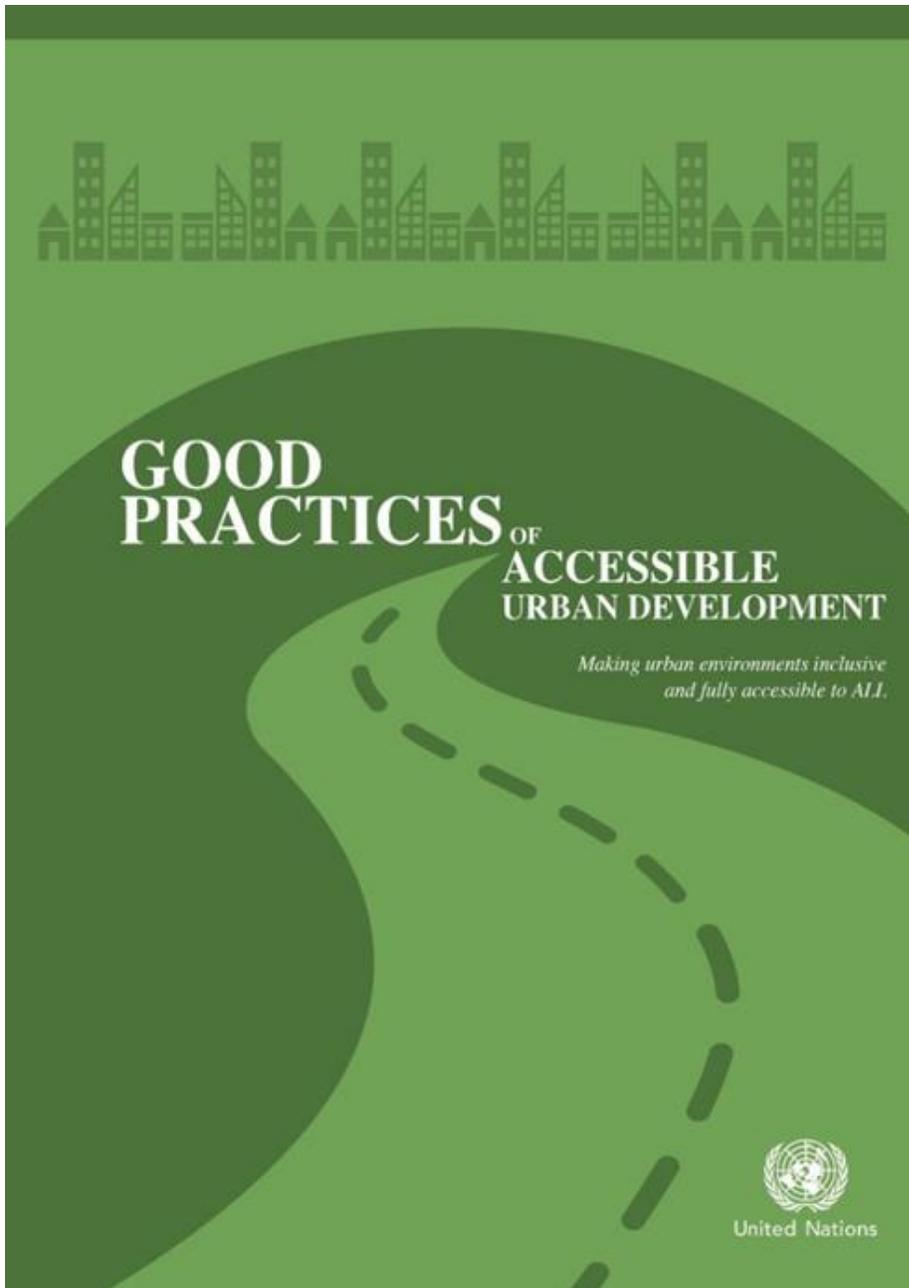
In light of the forthcoming United Nations Conference on Housing and Sustainable Urban Development (HABITAT III) and the imminent launch of the New Urban Agenda, DESA in collaboration with the Essl Foundation (Zero Project) and others have prepared a new publication entitled: "Good practices of accessible urban development". The publication provides case studies of innovative practices and policies in housing and built environments, as well as transportation, public spaces and public services, including information and communication technology (ICT) based services.

The publication concludes with strategies and innovations for promoting accessible urban development. The advance unedited text is available

at:**http://www.un.org/disabilities/documents/desa/good_practices_urban_dev.pdf**

FROM MODULARITY TO EMERGENCE

A PRIMER ON THE DESIGN AND SCIENCE OF COMPLEX SYSTEMS

Chih-Chun Chen and Nathan Crilly
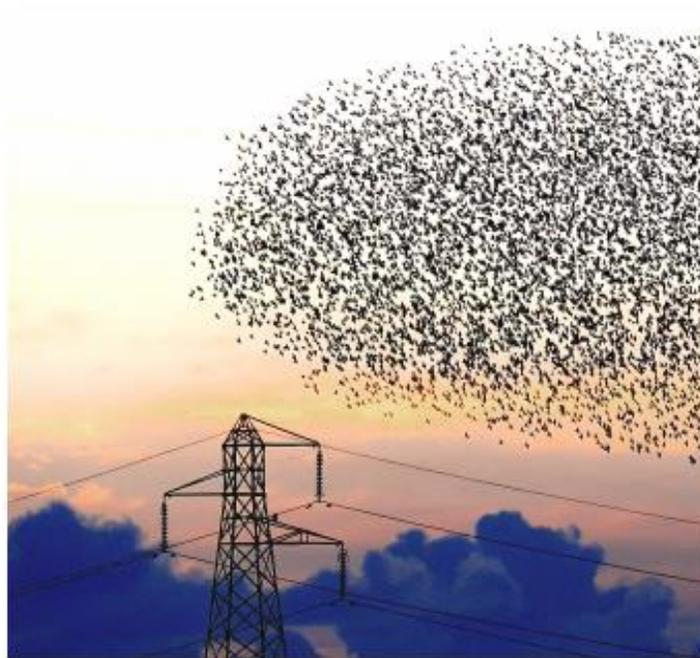
CUED/C-EDC/TR.168
Engineering Design Centre
Department of Engineering

UNIVERSITY OF CAMBRIDGE

Dr Chih-Chun Chen and Dr Nathan Crilly of the Cambridge University Engineering Design Centre Design Practice Group have released a free, downloadable book, _A Primer on the Design and Science of Complex Systems_. This project is funded by the UK Engineering and Physical Sciences Research Council (EP/K008196/1). The book is available at URL:

http://complexityprimer.eng.cam.ac.uk

Changing Paradigms: Designing for a Sustainable Future

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ECODESIGN HANDBOOK

HOW TO DO ECODESIGN

PRACTICAL GUIDE FOR ECODESIGN – INCLUDING TOOLBOX

ISSUED BY THE GERMAN FEDERAL ENVIRONMENT AGENCY

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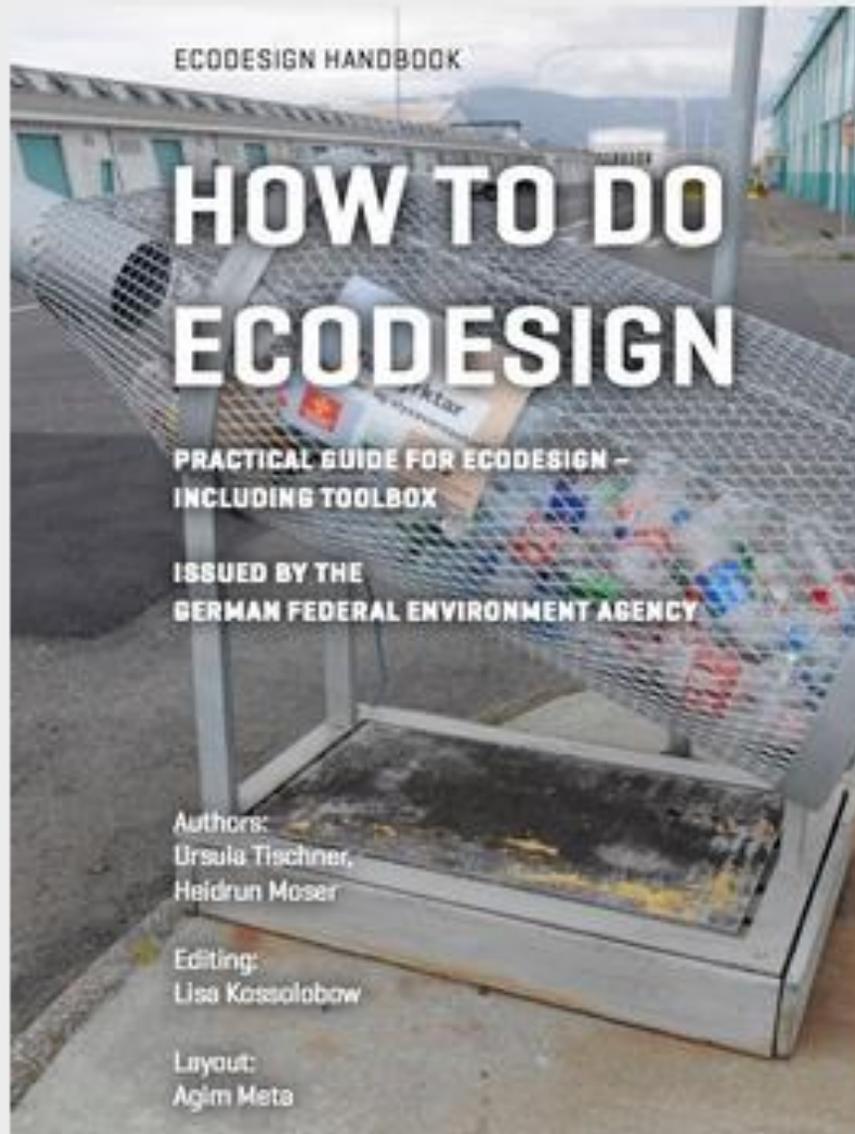
Practical Guide for Ecodesign – Including a Toolbox
Author: Ursula Tischner
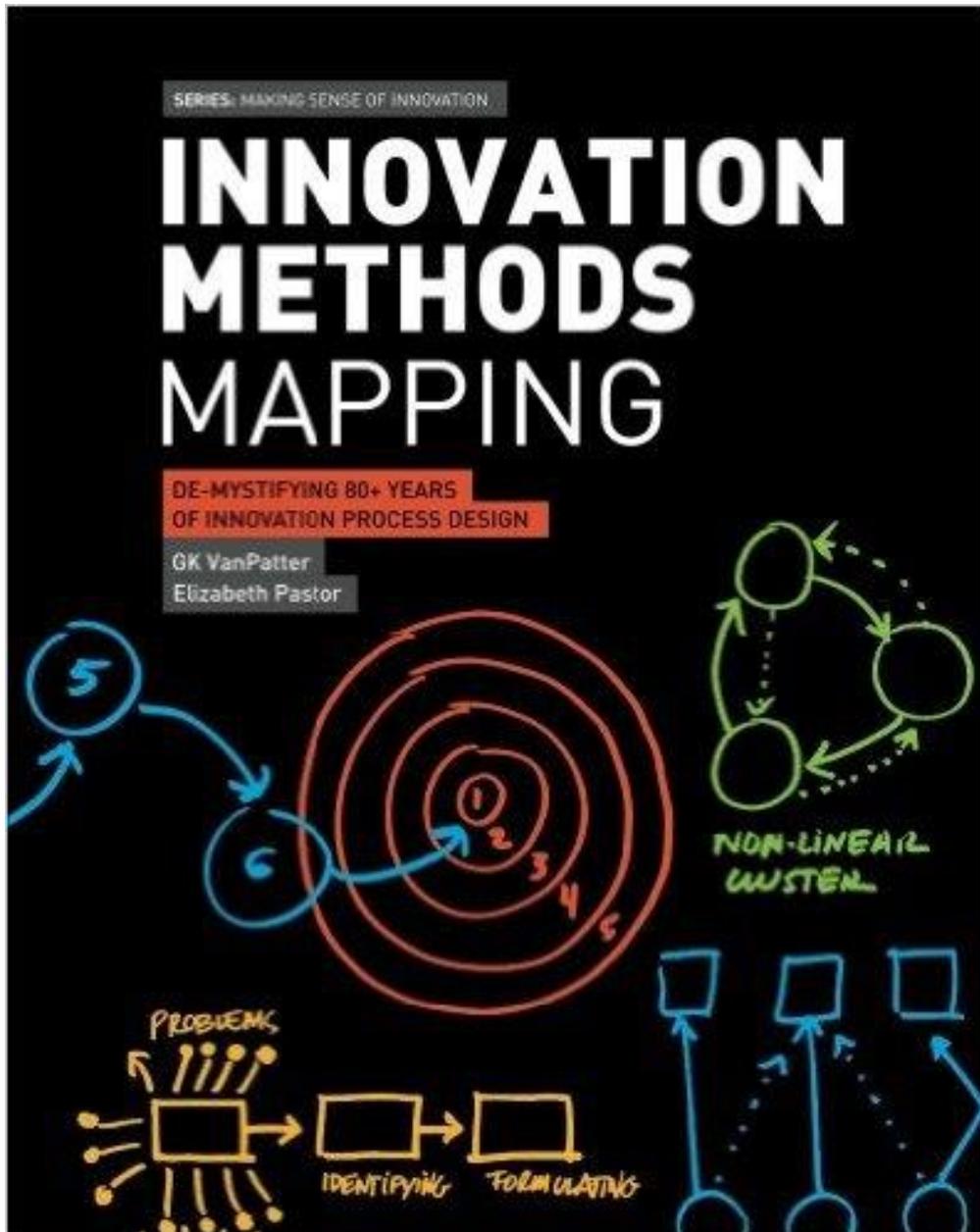
Humantific's new book: Innovation Methods Mapping has just been published and is now available on Amazon.
https://www.amazon.com/dp/1540788849/ref=sr_1_1?ie=UTF8&qid=1482329576&sr=8-1&keywords=Humantific
You can see the preview here:
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Pre-book form

Thank you for your interest in the book, 'The Design Journey of Prof. Sudhakar Nadkarni'. Few limited copies will be available for purchase on the day of IDC Alumni Meet, on June 11th, Sunday, 5:30 to 6:30 pm. Rest of the book orders will start shipping June 25th, 2017 onward.

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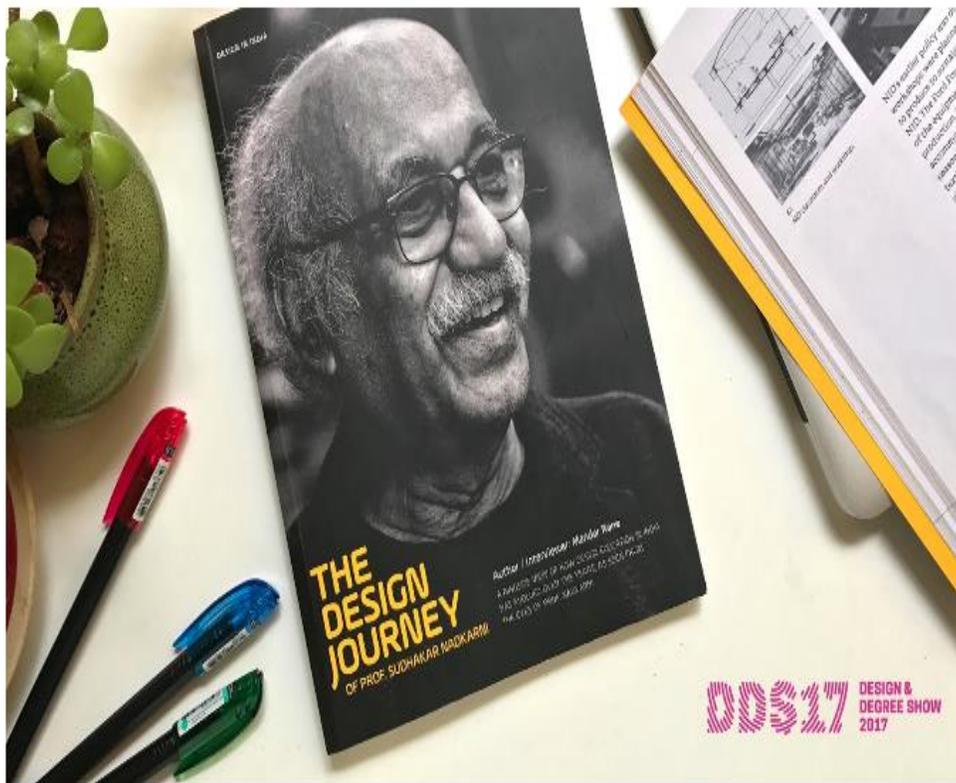
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Arnar Árnason and Sigurjón Baldur Hafsteinsson

DEATH AND GOVERNMENTALITY

Neo-liberalism, grief and the nation form
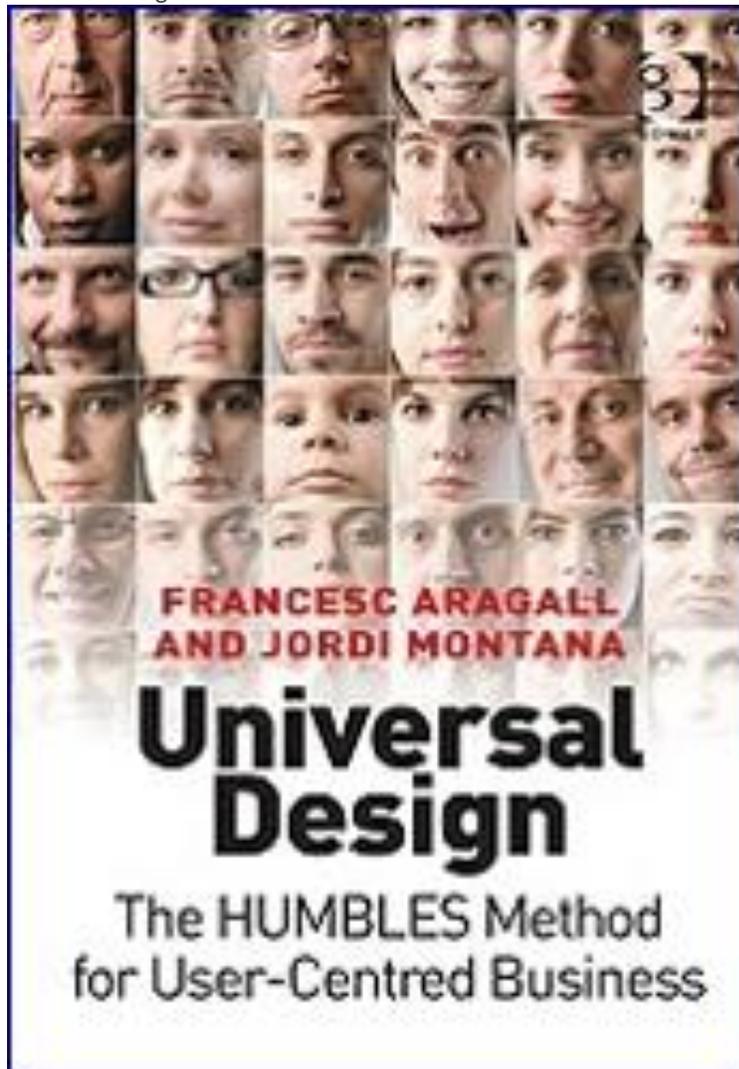
"Universal Design: The HUMBLES Method for User-Centred Business", writtenbyFrancescAragall and JordiMontañaandpublishedbyGower, providesaninnovativemethod to supportbusinesseswishing to increase the number of satisfiedusersand clients andenhancetheirreputationbyadaptingtheirproductsandservices to the diversity of their actual andpotentialcustomers, takingintoaccounttheirneeds, wishesandexpectations.

The HUMBLES method (© Aragall) consists of a progressive, seven-phaseapproach for implementing Design for All within a business. Byincorporating the user'spoint of view, itenablescompanies to evaluatetheirbusinessstrategies in order to improveprovideanimproved, morecustomer-orientedexperience, andtherebygain a competitiveadvantage in the marketplace. As well as a comprehensiveguide to the method, the bookprovidescasestudies of multinationalbusinesswhichhavesuccessfullyincorporated Design for All intotheirworkingpractices.

According to SandroRossell, President of FC Barcelona, who in company withotherleadingbusiness professionals endorsed the publication, it is "requiredreading for thosewhowish to understandhow universal design is the onlyway to connect a brand to the widest possible public, increasing client loyaltyandenhancing company prestige". To purchase the book, visiteither the **Design for All Foundation website**
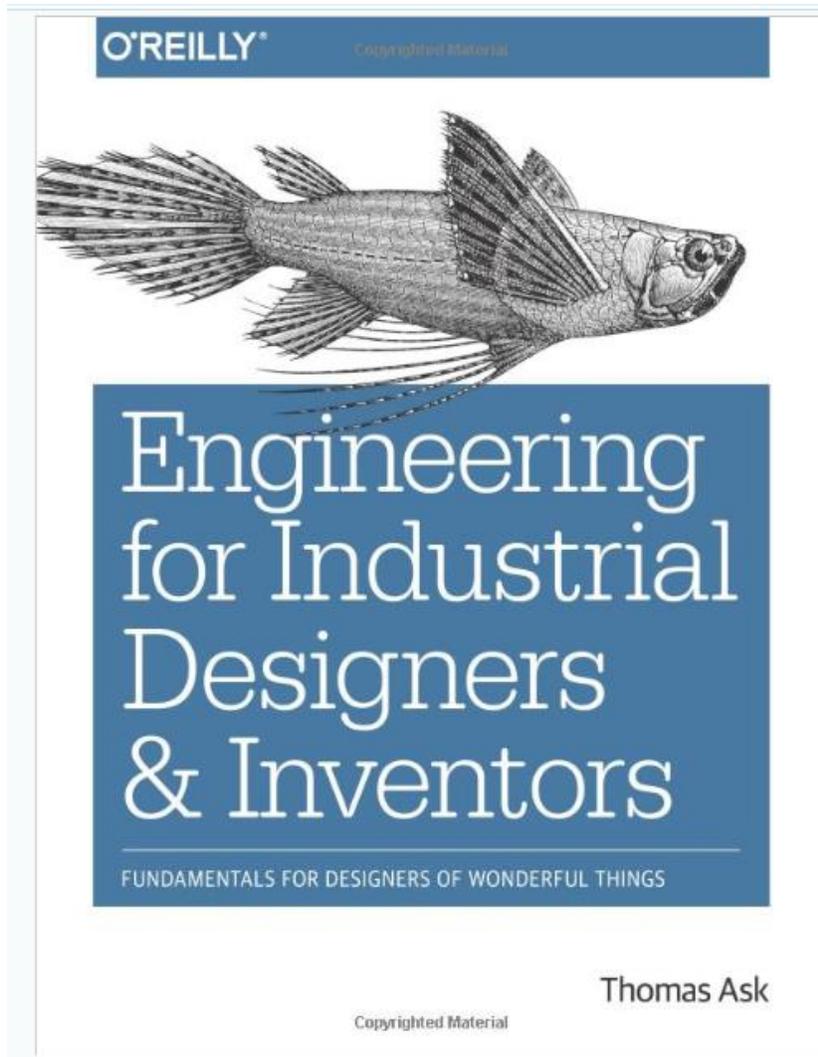
I have a new book that presents fundamental engineering concepts to industrial designers that might be of interest to you. This is the
link:
https://www.amazon.com/Engineering-Industrial-Designers-Inventors-Fundamentals/dp/1491932619/ref=sr_1_1?ie=UTF8&qid=1506958137&sr=8-1&keywords=engineering+for+industrial+designers+and+inventrs

APPEAL:

Sustatainability Guide release is out now!

Sustainability starts with Design, but how to start eco-designing in practice? I am thrilled to share with you a link to the Sustainability Guide, an online toolbox for those who want to learn more about developing sustainable products and business models, delivered by the Swedish Industrial Design Foundation (SVID) Please visit Sustainability Guide at www.sustainabilityguide.eu and spread the link to your network. You will find all new tools, methods and best practices to enhance the sustainable-led innovation – many of those developed for the Learning Factory Ecodesign are integrated into the Guide. We developed the Learning Factory training program in Fraunhofer IZM with my brilliant colleague Dr. Max Marwede, https://lnkd.in/eAHvq8i

Both projects are one result of the EcoDesignCircle Project.

(By Tapani Jokinen)

1.

How Can We Design Truly Gender-Neutral Work Places

[Dr. Pragya Agarwal](#)Contributori

The societal perceptions of gender are changing. Traditional male and female identities and roles are being questioned and re-defined. In the current gender and identity landscapes, it is very important that design of workplaces supports and enables the ownership and acceptance within this discourse of gender-fluidity.

Universal design encourages and promotes the accommodation of varying individual needs and preferences.

Unfortunately, much of office design is still rooted in conventional parameters, particularly promoted by the Modernist movement, where most Architects were male, and most leaders in organisations and in the boardroom were men. When there is a dominant group, the design is targeted at that particular group. There has always been a male bias in how offices are designed, how they look and how they feel.

UnsplashALVARO REYES

The solution is not, however, to create "feminine" spaces by using colours and typography that apparently appeal to women. Research that shows that women work better in open plan offices is not universal. These kind of sweeping design decisions are once again pandering to gender stereotypes. We need gender-conscious design parameters that allow people to choose and express their individual preferences rather than segregate and discriminate as per gender or draw attention to differences.

UnsplashUNSPLASH

A clearly defined process for implementing a gender-diverse and gender-conscious design strategy can include the following:

1. Evaluate and review the existing workplace as per standards. Different countries have different building standards and best-practice regulations. Additionally, **Universal Design principles** provide a suitable framework to start developing a gender-neutral design strategy, and to ensure that the design enables equitable use.

MORE FROM FORBES

2. Include consultation prior to, during and after the design process. It is important for the staff to feel heard. This will also ensure that there is open-mindedness around gender issues and identity in the workplace. Appropriate training for staff and awareness training ensures that they are able to prevent any potential conflicts.

3. Include signage that supports inclusivity, is clear and positive. Language can create confusion and miscommunication. Careful use of language that reinforces the gender-conscious and inclusive ethos, such as that emphasising the function of space rather than gender identity of users is important. Other ways to create inclusive language is by using phrases as per local social and cultural context, use of pictorial rather than verbal signage, and use of phrases that educate the users about shared spaces such as universal washrooms. Other ways to be careful is to employ and include transgender staff within the consultation process so that appropriate terminology is employed at all times.

4. Create a strategy for open active and passive monitoring. A regular review and evaluation process ensures that the staff demographic is updated and diversity is monitored.

UnsplashDESJARDINS

An **inclusive workplace** that offers the same opportunities for growth and productivity to all members of the staff, irrespective of gender, has to start from the top, and actively encourage this within its design as well as the company policies and ethos. The discussion has to begin from a clear understanding of what gender diversity and inclusivity truly means, and how that can manifest in the design of the physical environment.

It is also critical that there is flexibility to change and adapt as the community grows so that needs of different groups can be met.

Dr Pragya Agarwal
Creative and Social Entrepreneur, Designer, Writer and Speaker
CEO, The Art Tiffin
CEO, Hedge And Hog Prints
Advocating for equality, diversity and inclusivity

(Courtesy Forbes)

Programme and Events

Access Israel's 6th Annual International Conference on
Innovation & The Future of Accessibility
29 April 2018 - Israel
Avenue Conference Center - Airport City

The DesignEuropa Awards celebrate excellence in design and design management among Registered Community Design (RCD) holders, whether they are individual right holders, small businesses or large enterprises. The Awards seek to recognise companies and designers that have brought outstanding design to the market with the support and protection of the RCD.

DESIGNEUROPA awards 2018

APPLY UNTIL 15 MAY!

Organised by

Submit your application or nomination before 15 May 2018.

Voices of Good Design - What is Good Design?

Australia's only international design award program is open for entries, across 10 design disciplines and over 25 sub-categories.

Join us for the **2018 EDRA49 Annual Conference** in the **Oklahoma City, Oklahoma!** Walk along the streets of Oklahoma City, home to an attractive variety of historic buildings. Eye-catching religious buildings, and magnificent structures of great architectural and historic significance. **Stay tuned for registration to open in late Fall.** Check out what OKC has to offer, click here.

The weather in Toronto has warmed up and the IFA is preparing with anticipation to host over 1200 delegates from more than 75 countries in August 2018.

Universal Design & Higher Education
in Transformation Congress

30th October – 2nd November 2018, Dublin Castle

Transforming our World through Diversity, Design and Education

€30 billion
investment
under Horizon 2020 for Research & Innovation 2018-2020

CALLS LAUNCHED 27 OCTOBER

#InvestEUresearch
#www.ec.europa.eu/research

On 27 October 2017, the European Commission presented the final Work Programme for Horizon 2020, covering the budgetary years 2018, 2019 and 2020 and representing an investment of around €30 billion.

Horizon 2020: The EU's biggest research and innovation...

200 BILLION €

Human-Work Interaction Design (HWID'18) - Designing Engaging Automation
5th IFIP WG 13.6 Working Conference
August 20-21, 2018

Aalto University, Espoo, Finland

In continuation with the series of the Human Work Interaction Design working conferences, the fifth edition will take place in Espoo, Finland, on the 20th and 21st of August, 2018. The venue is the brand new building of School of Arts, Design and Architecture in Aalto University, Otaniemi campus.

Important dates:

Full paper submission deadline: April 2nd

Poster submission deadline: April 30th

Acceptance notifications: May 11th

Early bird registration deadline: May 31st

Conference: August 20-21, 2018

Theme, Scope and Focus:

This year's theme is Designing Engaging Automation. While we do not exclude other aspects of work analysis and designing interactions for work contexts, we encourage authors to share especially their research on human aspects in workplace automation in the 2018 edition of HWID conference.

Interaction design for work engagement has lately started to gather more attention, especially in designing tools for employees. Work engagement takes usability of interactive systems to the next level by providing employees pleasurable and meaningful experiences via the tools used at work. The theme of HWID'18 emphasizes the need for providing these experiences also when parts of the work are automated.

Examples of relevant questions include:

Is automation making work less interesting or more engaging?

How to improve work engagement by automation?

How to share work optimally between humans and automation?

How to maintain operator vigilance in highly automated environments?

How to support situation and/or automation awareness?

How to evaluate the impact of automation on work engagement?

This working conference aims to answer these questions to support professionals, academia, national labs, and industry engaged in human work analysis and interaction design for the workplace. We will discuss the tools, procedures, and professional competences needed for designing for and evaluating engaging automation in workplace contexts.

We invite two types of submissions:

Full papers (max 15 pages, excluding references) and

Poster submissions (max 4 pages, excluding references).

For both types of submissions, the authors must use the LNCS templates available from **Springer**. Please submit your work in PDF format to **EasyChair**.

All accepted papers will be published in the working conference proceedings in the form of an electronic copy with ISBN and made available to the participants. During the review process, the reviewers are asked to evaluate whether the paper is suitable for a HWID's Springer book (Springer-Verlag) that will be made available after the conference. We aim at most accepted full research papers to be included here, but also the possibility to have a very interesting perspective from industry or similar represented.

Conference web site: **https://blogs.aalto.fi/hwid2018**

2nd World Summit
on Accessible Tourism
Brussels
1-2 October 2018

Destinations
for All

Build
Promote
Welcome

The Accessible Tourism Chain

The second World Summit on Accessible Tourism will present latest innovations
and best practices for the development of destinations for all.

In parallel to the summit, an exhibition will allow you to discover accessible tourist
destinations, products and services from all over the world.

www.destinationsforall2018.eu

'Expo CD'
3 Day Workshop:
'Communication Design for IT and Media Professionals'
19th- 21st July 2018 from 9.30am - 5.30 pmat IDC School of Design, IIT Bombay

 Introduction:

The course Expo CD is a refresher course on the finer aspects of Communication Design specifically meant for IT

and Media Professionals..

The course will inform the participants about the overall aspects of Communication Design for the Digital Media, a deeper understanding of Communication Graphics, Methods for Structuring and Visualisation of Information as well as exposure to creative processes for solving communication problems.

The subjects covered during the workshop include - Typography for Digital Media, Expressive Typography, Typography for the Web, Information Graphics, Information Visualisation, Communication Graphics, Icon Design, Design Process, Design Methodology, Interactive Design, Identity Design, etc..

The course is scheduled to have lecture and discussion sessions in the morning followed by workshops on Communication Design related creative problem solving sessions in the afternoon

Global Architecture & Design Awards

rtf **GLOBAL ARCHITECTURE AND DESIGN AWARDS 2018**

A Rethinking The Future Initiative

A call for Professionals and Students to submit their work under Mentioned Categories

Registration Free for RTF Media Lab Members

MEDIA PARTNERS

ARCHIBAZAAR   W World Architecture Community

Global Architecture & Design Awards is one of the world's most prestigious Awards hosted by Rethinking The Future (RTF). RTF has been hosting Awards since 2012, and many esteemed Studios have been the winner of the Awards like Aecom, HOK, Aedas, Bjarke Ingels Group & Dialog, UNstudio, Perkins Eastman, etc. GADA is open to all the professionals and students across the world and offers more than 40 Categories divided into 'Concept' and 'Built'.

Participate Now

International Architecture Awards

One of the most famous Architecture Awards across the globe, International Architecture Awards hosted by Architecture Podium brings its winners to the top in the industry. Some of the previous winners include Aedas, TerreformOne, Rockwell Group, Pepe Gascon Arquitectura, Nadaaa etc. International Architecture Awards offer 30+ Categories under three groups' i.e.; Architecture, Interior Design and Product Design.

Participate Now

The Aga Khan Award for Architecture

The Aga Khan Award for Architecture

The Aga Khan Award for Architecture (AKAA), established by Aga Khan IV in 1977, is awarded every three years to an architectural project that meets the needs and preferences of Islamic societies. The Award seeks to identify and encourage architectural concepts in the fields of community development, area conservation, contemporary design, preservation of the environment and landscape design.

Participate

SparkNewsNow • Live Large • Enter Today • Spark Awards • All Design • All Designers

Spring Edition - 05/01/2018 - New York, Seoul, Paris & Milan

2018 Spark Design Awards Are All Underway

All the various Spark Awards are welcoming entries now. They include 12 design specialties, so there's sure to be a good fit for your work.

GLOBAL ARCHITECTURE AND DESIGN AWARDS 2018

Schedule:
Registration Begins. 15 Mar, 2018

International Architecture Awards 2018

After the huge success of previous International Architecture Awards, Architecture Podium is announcing IAA 2018. Architecture Podium created one of the largest awards in architecture and design with some of the esteemed studios as winners like Aedas, TerreformOne, Rockwell Group, Pepe Gascon Arquitectura, Morphogenesis, Dada & Partners, Nadaaa, XTEN Architecture, Mecanoo, ABIBOO Architecture and many more from across the globe making IAA one of the most successful awards.

The GQUAL Campaign, the International Disability Alliance and the International Disability and Development Consortium call upon States Parties to promote gender balance as well as quality and independence among the experts within the elections for the Committee on the Rights of Persons with Disabilities (CRPD Committee). On June 12th, 2018, during the XI Conference of States Parties (COSP) to the Convention on the Rights of Persons with Disabilities, States Parties will elect 9 experts to the CRPD Committee.

2018
Breakthrough and Innovation
臺灣國際學生創意設計大賽
Taiwan International Student Design Competition

May.15 — July.16

CALLING ALL DESIGN STUDENTS - ENTER TISDC TODAY!

Free to Enter | Registrations Close 16 July 2018 | Cash Prizes

We invite you to participate in the 2018 Taiwan International Student Design Competition (TISDC), the most participated International Student Design Competition in the world!

Te Ao Tangata
Inclusive by Design

Universal Design Conference
6-7 September 2018
Victory Convention Centre, Auckland

Expo **PDi**

http://www.dsource.idc.iitb.ac.in/events/idc-events/expo-pd-in-2018.html
3 Day Workshop:
Exposure to Product Design and Innovation

23rd - 25th August 2018 from 9.30am - 5.30 at IDC School of Design

Job Opening

Job Openings

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Feedback@designforall.in

Dear Friends,
We need your feedback on our publication and your support for popularizing the concept of our social movement of Design For All/ Universal/ Barrier free/ Inclusive Design. It is our further request kindly submit your latest articles, research findings , news and events with us for publication in our newsletter.
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