

The Bridge

Indigenous Knowledge as a Bridge to Sustainable Design

Adital Ela
Designer and Post-Graduate Researcher
Allenby 73/15
Tel Aviv 65134
Israel
Phone: +972 3 6204932, +972 54 6900165
Fax: +972 3 5605347
E-mail: aditala@hotmail.com, aditala@netvision.net.il

Adital Ela is a trained product designer working as a creative director at a design firm in Israel. Adital holds a master of design from the 'Man and Humanity' master program at the Design Academy Eindhoven, and is working to promote sustainable design education in Israel. Adital functions as a board member of O2 Global Network and is a member of "Bimkom- planners for planning rights" an NGO focusing on sustainable urban development.

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Abstract

This study started with the motivation to explore the meaning of sustainability as it was depicted through indigenous living patterns. It started with the hypothesis that this form of knowledge can potentially transform and become a new focal point enabling us to elaborate the way we practice sustainable design. Indigenous knowledge originating from India was chosen as a case study for this research.

Through the attempt to understand the essence and deep meaning behind this knowledge, a translation process took place with the aim of exploring ways to assimilate it within the current context of living.

The practical outcomes of this process are five design strategies, offering an invitation to a holistic, yet applicable, view of sustainability. Based on these strategies an educational tool named 'The Bridge' was constructed. 'The Bridge' acts as the first step of a collaborative effort aiming to elaborate the proposed strategies into practical outcomes.

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This work began some five years ago during a year of travel in India. Through the process of traveling and getting acquainted with the people and the lifestyle of indigenous communities, a self-motivated research regarding sustainability was initiated.

India being a place of extremes, offers evidence of traditional ways of living existing side to side with a growing influence of western culture.

The encounter with people living in harmony with nature, living a life based on the resources of their surroundings with great sensitivity and minimal waste bestowed in me a much deeper meaning and understanding of the term sustainability that in some cases literally spoke through their habits.

Years later, upon taking on board the academic discourse regarding sustainability, this "Indian encounter" revealed a gap between the informative and educative academic dialogue revolving around the term sustainability and the vibrant life consistency offered through traditional ways of living.

Upon outlining this gap it became evident that additional perspectives to the way we conceive sustainable design could be embraced. This study is an attempt to propose such a viewpoint.

This research started with the intention of exploring the meaning of sustainability as it was depicted through the life of indigenous people in India. It aimed to go beyond the western mindset which tends to dictate design acts, and adopt a broader perspective by observing a society which evolved and functioned while striding with a lighter footprint on this planet.

The exploration of indigenous living patterns that evolved through the process of living in symbiosis with nature taps into a body of knowledge that has been accumulated and refined through thousands of years, which can potentially become a new focal point enabling us to elaborate the way we practice sustainable design. This knowledge was to be translated into design processes that capture some of the qualities of these patterns.

The main question that the study evolves around is: How can indigenous ways of living transcend to become relevant, influential and inspiring to our life in modern society?

Research Process

While making an attempt to address the initial research question, it became apparent that the process of defining what 'indigenous knowledge' (IK) could mean in the context of this research and how to find evidence for it was not a trivial one. Therefore, the initial phases of the study focused on exploring various paths on the road to grasping the elusive threads that were referred to in this context as indigenous knowledge.

Through the first phase mentioned above three main routes of research were defined:

- The search through various publications of different organizations that aim to collect and document IK examples.
- Exploring various reports about Indian science and technology before the British colonial period
- Studying the approach of ancient Hindu scriptures and tradition to ecology

As the research evolved it became apparent that studying the approach of ancient Hindu scriptures to ecology guided the work towards the realms of knowledge it was aspiring to. The literature enclosing

this knowledge revealed a society aspiring to live in a holistic way which is embedded in nature. It exposed the Hindu culture's view that an environmental approach to life is an inherent part of spiritual culture and human identity, and to the ways this basic view influenced every level of society and daily life.

While observing this realm of knowledge in the context of the research question, it can be stated that the most promising way identified for IK to become relevant to our lives today, was through attempting to understand its essence and deep meaning, and using this understanding as a foundation for a process of translating and applying these qualities within our current context of living.

The Key Words

As this type of knowledge revolved mainly around broader views of society a choice was made to identify main trends that could be illustrated as complimentary tendencies that represent what was identified through the research as the essence of this body of knowledge.

These trends were represented in three key words that later on became a guideline to designing according to their essence.

The three key words that were chosen are:

PARTICIPATION, ABUNDANCE & REINCARNATION

1st Key Word

PARTICIPATION

"We should go about in the manner of a bee collecting nectar from a flower: The bee harms neither the fragrance nor the beauty of the flower, but gathers nectar and turns it into sweet honey." Arahnt, a Buddhist saint

The most important aspect of the word participation, in this paper's context, is the perception of the human world as an inherent part of the natural environment. The concept of participation is derived from this view; the concept of action that is one with the activities of nature. Participation withholds an invitation to explore ways for human activities to become flowing processes that react and interact with the laws of nature.

Participation relates not only to the human and the natural but also to the mutual participation of humans amongst themselves. This might relate to issues of collaborative efforts for a common goal, or to fellow humans partaking in deciphering their interrelations with the natural environment.

An additional aspect of participation, in the context of design, could be the integration of the user into the design process, i.e. the participation of the user in one or more steps of the implementation process.

2nd Key Word

ABUNDANCE

"Not what we have but what we enjoy constitutes our abundance." John Petit-Senn

The word abundance alludes to the spiritual principle of viewing the full half of the glass. It replaces the word lack and invites us to focus on the "is" of the world instead of the "isn't".

Many times in the field of ecodesign or environmental concern the general approach is "we need to use less of the world." The notion of ABUNDANCE invites us to explore new ways of dialogue and collaboration with the natural environment that tune into the abundance that is its essence. It is an invitation to abandon the word 'lack' and encompass a fresh view to "potential".

A view of the world that sees in every apple seed a fruit bearing apple tree is a view that connects to the overflowing fullness of abundance.

3rd key word
REINCARNATION

"The golden rule of ancient economics has always been: what you take from nature must be returned, and whatever you return shall again come back to you." (Prime, 1994)

This notion refers to the perception of nature as dynamic. Changeability is one of the basic principles of nature; there are no static and stable things, but rather continuously changing ever-moving processes. The concept of reincarnation, in this context, invites us to explore change as the basic essence of nature and to integrate it within our artifacts; rather than trying to create things that 'stop' or try to last forever by attempting to overrule the cycle.

The view of every element in the world as part of an ongoing cycle that nourishes itself endlessly captures the essence of reincarnation as related to in this context.

Participation, Abundance and Reincarnation

The key words participation, abundance and reincarnation invite us to rethink the way we perceive our interactions with the world surrounding us, thus challenging us to question the way we act in this world. The key words withhold an invitation to look deeper and with a fresh eye at the term 'sustainability' in the attempt to understand the role of human action as a mediator between our current state of existence and our growing need for sustainability.

Participation, abundance and reincarnation are the guidelines proposed by this research to explore this role.

From Key Words to Design Strategies

Through an elaborated process that made use of design research tools, a translation process took place with the aim of identifying potential application channels for the three key words within the current context of living.

Through this process it became apparent that the tendencies that kept reappearing as 'design clues' on different layers of exploration are continuing to re-emerge. In reaction to this naturally evolving tendency, these main trends were captured and elaborated into five design strategies that are the practical conclusion of this study.

The five strategies were designed with the intention of addressing the individual, communal and environmental scopes, offering an invitation to a holistic view of sustainability by exposing of its various layers and interdependencies.

The five design strategies proposed are:

Strategy no. 1 Tai Chi with Nature

The design strategy 'Tai Chi with Nature' invites us to explore ways in which humans can participate in nature as partners in a Tai Chi dialogue (Tai Chi is a 'soft style' martial art that is also considered an art of moving meditation. Here, the notion of a Tai Chi dialogue refers to the transcending of energy initiated by one partner and its transformation through his co-partner to the next cycle.)

This strategy invites us to investigate opportunities where human activities have the potential to become another one of the natural chains of reaction.

This strategy promotes activities that enhance the natural process rather than oppose it. We are encouraged to locate spaces in which we can react within our surrounding environment, allowing the movement to enrich us, while letting it transform forward to the next cycle.

Strategy no. 2 Objects Enter the Living Realm

The strategy 'Objects Enter the Living Realm' invites us to explore ways in which our artifacts participate within the changeability of nature. It is an invitation to let go of attempting to make things that 'stop', but rather things that grow change and react through their life span, illustrating the potential

of continuously changing ever-moving processes. A practical view of this strategy could result in a number of possible actions:

The first is by exploring ways to engage renewable resources into every aspect of human life. The second possible action is to explore ways to embody the concept of 'waste equals food' (McDonough, Braungart in 'Cradle to Cradle') which promotes the notion of every product or material becoming part of a never-ending cycle that nourishes itself endlessly. There could be two cycles of nourishment: the organic cycle and the technical cycle. Biological nutrients would be designed to return to the organic cycle and the technical nutrients would continually circulate within closed-loop industrial cycles.

Strategy no. 3 Design as a Mediator

The strategy 'Design as a Mediator' alludes to creating spaces within an over-configured world enabling people to reconnect to their playful creative side, the kind that revives on a castle building day on the beach.

The core of this strategy relates to regaining the capacity to take part in designing your own environment. It promotes empowering people to take back responsibility through connecting to their source of creativity which is their unique source of abundance.

This notion could be explored through the design of various concepts of products that incorporate the user in the product's manifestation. Such incorporation can take the form of either creative kits enabling the users to create the artifact they need, or tools that mediate between an individual and what he might find in his surrounding environment, thus enabling him to locate and use the existing potential.

Strategy no. 4 Transforming the 'In-Betweens'

The strategy 'Transforming the In-Betweens', invites us to participate in the way things are right now, through connecting to the already occurring situations that can create surprises. The core of this strategy is connecting to the unseen sources of abundance.

The term 'in-between spaces' could be referred to on different layers; An example of one such layer could be locating existing objects/situations in public space that hold an additional hidden potential. Observing the way homeless people use the city can teach us a great deal about this strategy.

On the infrastructure layer, a suggested strategy could be designing a system in which shops or apartment for rent could become temporary exhibition spaces in the inner city.

Another possible layer that this strategy withholds is addressing a social group like elderly people or the unemployed, who could potentially fill a new role in society as, for example, the new civil servants of the non-profit sector.

Strategy no. 5 Creating through Sharing

The strategy 'Creating through Sharing' refers to the participation of humans amongst themselves. It alludes to the interrelation between an individual and a community.

The core of this strategy is the understanding of the term 'interdependence'. As described by the Buddhist philosophers, everything in the universe is literally dependent upon everything else, nothing stands alone, and everything is linked together through time and space. This acknowledgement is a starting point that enables a different participation within our community on its broadest sense. Such participation could encourage our mutual participation as humans, through touching our commonalities.

This strategy invites us to explore ways to generate experiences that would initiate shared common moments. These experiences have the potential to reveal the beauty of acting together with a stranger based on our commonalities while serving a common goal. The goals could be both mutual spontaneous existential moment and long term lasting outcomes.

The Bridge

In order to enable the five design strategies to bridge the gap between the theoretical realm and tangible design concepts an applicative tool named 'The Bridge' was constructed.

'The Bridge' aims to introduce designers to the key words and strategies designed through this work, while enabling the participants a first hand experience in conceiving designs along the suggested guidelines.

'The Bridge' is an educational tool in the form of a workshop, derived from the strategy 'creating through sharing.' It acts as the first step of a collaborative effort aiming to elaborate the proposed strategies into practical outcomes.

In line with this strategy the process undertaken in 'The Bridge' supports a communal dialogue in the form of a 'design brainstorming'. By addressing the common goal of conceiving far-reaching sustainable design concepts through a collaborative effort, 'The Bridge' transcends this strategy into practice.

Through the experience generated in the workshop, designers are introduced to an alternative approach to design practice while being encouraged to reflect upon the role design and designers might play in our world today.

The workshop takes place in three meetings in which designers (preferably together with other relevant professionals) get acquainted through a first hand experience with the basic concepts of 'The Bridge'. The workshop enables designers to create both quick associative design concepts and engage in an ongoing development of design concepts through the three meetings.

'The Bridge' is offered to design schools and other relevant institutions and is designed to enable the participants to attain its ground concepts on both cognitive and intuitive levels thus aiming at generating a substantial experience which could enrich their perception of design.

'The Bridge' is an invitation to participate in the abundance of ideas and thoughts likely to flow through an honest attempt at embracing a new viewpoint that could potentially support the (re)incarnation of our society into a sustainable state of being.

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