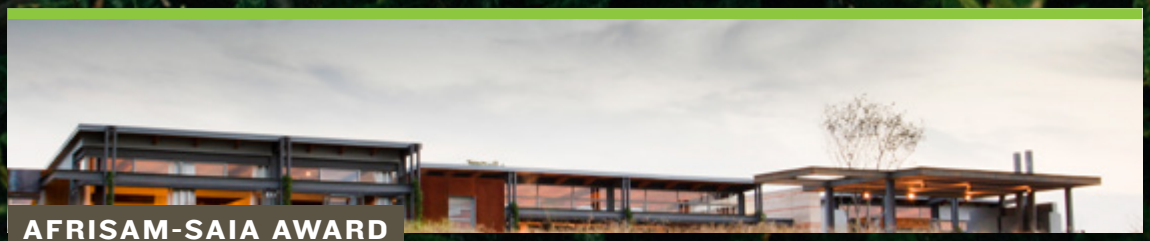

AFRISAM-SAIA AWARD

4 SUSTAINABLE ARCHITECTURE + INNOVATION

GLOSSARY

Beneficial Occupation

Beneficial occupation and beneficial occupancy are terms used to describe the stage of construction of a building or facility, before final completion, at which its owner can occupy it for the purpose it was constructed. (For the purpose of Category A: Sustainable Architecture Award the building has to be beneficially occupied for at least 12 months.)

Building Life Cycle

Considers the entire lifespan of a building from design to construction, operation, alteration, demolition and waste treatment.

Built Environment

Refers to surroundings modified by people that provide the setting for human activity. This ranges in scale from personal shelter and buildings to neighbourhoods and cities that includes their supporting infrastructure, such as transportation, water supply or energy networks. In the social sciences it is viewed as a material, spatial and cultural product of human labour that combines physical elements and energy in establishing forms for living, working and leisure activities. Public health research has expanded the definition of built environment to include aspects like healthy food access, community gardens, "walkability" and "bikability.

Built Structure

Buildings and infrastructure constructed by humans.

Climate Neutral

The notion of creating a 'neutral' impact on global warming for an individual, business, country, etc. by reducing or offsetting any greenhouse gases produced by said entity.

Cultural Adequacy

Meeting and respecting the socio-cultural needs and rights of a community in context of local environment and natural resources.

Ecosystem

A system, or a group of interconnected elements, formed by the interaction of a community of organisms within their environment.

Eco-Innovation (see also: Sustainable Innovation)

The development and design of processes and products that contribute to sustainable development through the commercial application of knowledge to elicit direct or indirect ecological improvements. This includes a range of related ideas, from environmentally friendly technological advances to socially acceptable innovative paths towards sustainability.

Ecological Design

An integrative ecologically responsible design discipline that connects diverse efforts in green architecture, sustainable agriculture, ecological engineering, ecological restoration and other fields. Broadly defined as any form of design that minimizes environmentally destructive impacts by integrating itself with living processes.

Embodied Energy

The energy expended over the entire lifecycle of a product, building or service.

Evolutionary Paradigm

An evolutionary paradigm is one in which design and related processes contribute towards and develop an ongoing regenerative future.

Green Architecture

Green architecture uses a conscious approach to energy and ecological conservation in the design of the built environment. It practices building design that moves towards self-sufficiency and sustainability by adopting circular metabolism that minimizes the negative environmental impact of buildings by efficiency and moderation in the use of materials, energy, and development space.

Greenwashing (also: Green Sheen)

The practice of making misleading or unsubstantiated claims about a product, service, technology or company practice in order to promote the perception that it is environmentally friendly.

Green Design

A general term implying a direction of improvement in design i.e. continual improvement towards a whole and healthy integration of human activities with natural systems.

Harmonisation

Designs and related processes that harmonise the use of resources with the conservation and strengthening of ecosystems (natural, social, human, financial, infrastructure).

High Performance Design

Design that realises high efficiency and reduced impact in the building structure, operations, and site activities. By focusing on technical efficiency, this design approach may limit embracing the larger natural system benefits.

Historic District

A group of buildings, structures, objects, and sites that have been designated or determined to be eligible as historically and architecturally significant.

Historically Sensitive Sites

Structures or locations, built or natural, having significance for, or being representative of, human activities or beliefs, especially as they relate to the past or traditional cultural practices.

Lifecycle

All stages of a product, service or building's development, from raw materials, manufacturing through to consumption and ultimate disposal and waste management.

Living Buildings

Living buildings are either:

1. Autonomous and not reliant upon the electrical grid or other utility systems to operate. Mimicking natural processes, it obtains all necessary resources for operation from the natural environment (rainwater, wind, sunlight), which achieves a net-zero impact on the environment.
2. In accordance with the concept of net-zero, they take in resources (from the electrical grid, public water supply, etc.) at levels equal to or less than what they return to the community and the environment (in renewable energy, recyclables, etc).

Living buildings are designed, operated, and managed to have no negative health impacts upon occupants.

Living Environment/Systems

The sum total of all surroundings of a living organism, including natural forces and other living things, which provide conditions for development and growth (including factors such as danger and damage). The science of living systems is revealing a world that is not random but purposeful. According to biologist Elisabet Sahtouris, living systems implies "...an understanding of nature as alive, self-organizing, intelligent, conscious or sentient and participatory at all levels."

Natural Systems

Systems existing in nature or created by the forces of nature, in contrast to production by humans.

Net-Zero

Zero net energy consumption implies that the total amount of energy used by the building on an annual basis is roughly equal to the amount of renewable energy created on the site. Such buildings may at times consume non-renewable energy and produce greenhouse gases, but at other times reduce energy consumption and greenhouse gas production elsewhere by the same amount, meaning that they consequently do not increase the amount of greenhouse gases in the atmosphere.

People Upliftment

A holistic approach to design and related processes that address the dignity of people through the creation of a socio-economic environment that is inclusionary, humane, self-sustaining, maximises the financial viability and impact, and acknowledges lifecycle cost efficiency during and post the implementation process. People upliftment ensures that all the needs of individuals are addressed - mentally, physically, emotionally and spiritually.

Placemaking

Placemaking is an inclusive multi-faceted approach to the planning, design and management of public spaces. It embodies the connection between people and the places they share and the collaborative process by which we can shape our public realm in order to maximize shared value. Both a process and a philosophy, it capitalises on a local community's assets, inspiration, and potential, with the intention of creating public spaces that promote people's health, happiness, and well being. It includes processes that enhance the architectural landscape and contextual urban environment, including the infusion of delight.

"More than just promoting better urban design, placemaking facilitates creative patterns of use, paying particular attention to the physical, cultural, and social identities that define a place and support its ongoing evolution" - Project for Public Spaces.

Regenerative Design

Regenerative Design introduces into Ecological Design at least two additional streams - Art of Place, and the science of living systems. The term regenerative describes processes that restore, renew or revitalize their own sources of energy and materials, creating sustainable systems that integrate the needs of society with the integrity of nature. According to Pamela Mang "...the Regenerative Designer asks not just how do we harvest wood sustainably, but how do we live with the forest in a way that enables the forest to evolve. Regenerative Design is thus reframing the purpose of our role as designers and even what it means to be human".

Restorative Design

This approach thinks about design in terms of using the activities of design and building to restore the capability of local natural systems to a healthy state of self organization.

Self-Sustaining

A system is self-sustaining when it can maintain itself by independent effort. A system's self-sustainability is both the degree at which the system can sustain itself without external support and the fraction of time in which the system is self-sustaining.

Sense of Place

Sense of place involves the human experience in a landscape, the local knowledge and folklore that provides the basis for an individual or a group's understanding of, and relation to their environment. Sense of place grows from identifying oneself in relation to a particular piece of land or locality and the symbolic relationship formed by people giving culturally shared emotional affective meanings to a particular space. It embodies those characteristics that make a place special or unique in people's minds, thus fostering a sense of authentic human attachment and belonging. It is however more than an emotional and cognitive experience, and includes cultural beliefs and practices that link people to place.

Social Impact Assessment

Social impact assessment (SIA) is a methodology to analyse, manage and review the social effects of infrastructure projects and other development interventions with the intention of bringing about a more sustainable and equitable biophysical and human environment.

Social Environment

Social environment refers to the immediate physical and social setting in which people live or human activity takes place. It includes people's social and cultural contexts and institutions with which they interact.

Social Programmes

Programs designed to give assistance to citizens outside of what the market provides.

Social Innovation

Provides a relevant solution to a social problem that is more effective, efficient, sustainable, or just than current solutions. Social innovation focuses attention on the ideas and solutions that create social value, as well as the processes through which they are generated. The value created by such innovation benefits not just on individuals and organizations, but rather society at large.

Sustainability

The use of resources, in an environmentally responsible, socially fair and economically viable manner, whereby its use by future generations is not compromised by meeting current needs. Sustainability promotes the health and vitality of both man and natural environment by improving the quality of human life while living within the carrying capacity of supporting eco-systems.

Sustainable Architecture

A form of architecture that is energy efficient and does not require expensive maintenance. It utilises sustainable energy sources, the reuse and safety of building materials, and considers the structure's impact on both the natural and social environment.

Sustainable Design

In general the term refers to the process of developing products, services, and organisations that comply with the principles of economic, social, and ecological sustainability. In architecture it refers to design that reduces resource and utility consumption, uses environmentally innocuous materials, and is in aesthetic, environmental, and cultural harmony with the surroundings.

Sustainable Habitat

The term often refers to sustainable human habitats, which typically involve some form of green building or environmental planning. A sustainable habitat is one that produces food and shelter for people and other organisms, without resource depletion, and in such a way that no external waste is produced. Everything within the system is connected to a complex array of organisms, physical resources and functions.

Sustainable Innovation

A process for developing products, services, technologies, and also business and organization models, whereby sustainability considerations (environmental, social, financial) are integrated into company systems from the point of idea generation, through to research and development and commercialisation.