

Name

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Subject

Date

### **Technology**

Technology is a process in which outputs are converted from inputs like a computer, labour and electricity combined to produce something. This terminology is relatively new to contemporary design literature (Vellinga and Asquith, 26). Regardless of its widespread and high significance, their great inconsistency and ambiguity in the use of technology. Most scientists have defined technology as a scientific and systematic process operation in connection with industrial activities which can have been categorised generally to non-industrial groups. Others have defined technology as tools of study, approaches and methods that can be exploited in different industrial fields. In summation, technology is a key factor for transforming resources, natural, into services and work.

Technology can be defined as a technique and method of manufacturing technical tools and machines to achieve convenience and facilitate task accomplishment. Art, on the other hand, is considered to be an imagination and skill of creating beautiful and unique objects (Rashid, 42). Technological and art industry is essential in modern life and their exploitation is guaranteed. Different scholars have defined technology in relation to architecture differently. Some argue that architecture and technology are human life activities. Others claim that both architecture and technology are ways if fulfilling a task while others debate that architecture and technology are used for identifying and depicting realities (Rashid, 65).

Technology forms a huge part of our society and near future. There is no room for people that oppose technology. I believe that technological advantage has a disadvantage at the same time. Modern technology helps us stay in touch, regardless of distance. They are reliable and their safety is quite relative (Jones et al., 98). Though this connection is important, it is disadvantageous in that people will no longer crave face to face communication, interpersonal relationships will be strained since people are communicating through devices. Smartphones are used semi-continuously by their owners even in public places where they mingle and interact with current and new friends.

Technology is a great thing. It definitely has got some advantages. However, with each technological advancement and tool, we discover advantages as well as disadvantages. More than often, technological shortcomings are overlooked by its users. Other users use technology to enjoy bullying, shaming, stalking and user users.

### **The Importance of Technology in Contemporary Design.**

Scholars argue that the manifestation of the world is a Supreme Being. Therefore, the testimonial nature is an expression and reflection of all Godly virtues and qualities. I am of the opinion that the creations and achievements of man are also a manifestation of God. Technology is significant and a useful tool of the innovativeness and creativeness of humankind (Rashid, 73). It is, therefore, arguable that technology is a key aspect in human kind essence and manifestation. Like art, technology develops and reaches maturity. It also acquires position and significance of contemporary design. In such a case, technology is not a threat to human life but rather a tool and opportunity for the facilitation and advancement of human life.

Similar to a broken glass which can be collected and attached, a human being, traditional, can use technology to organise and categorise artefacts and phenomena. Using

technology in processes is a supreme and sublime achievement; case in point, technology use is in line with a unique purpose to achieve perfection (Jones et al., 102). God is the greatest creator of the world and human being is a mere representation of God in the earth. Mankind can organise existence elements to create order and harmony. Technology is considered as a supplement of accomplishments and achievements by traditional architects. Traditional architects do not have direct credit claim to their great contributions and values to architecture.

There is a noticeable contrast between Asian architects and current architects. This difference is so huge regardless of the fact that current researchers and architects have the advantage of new technology. Most current buildings have serious construction defects such as lots of dismal, dark, non-functional, useless and unneeded spaces. The not so perfect constructions a summation result of disorganised and non-systematic designing with no identifiable compatibility and connection between two or more different parts. The globalisation process has realised time density and space (Ching, Mark and Vikramaditya, 35).

In traditional Asian architecture, the architect would be able to exploit both technology and expertise to create compatibility and consistency between different building parts thus technology and art were integrated well (Rashid and Dilshad, 23). Permanence, stability and compatibility are the key characteristics of Asian architecture. These characteristics were meaningfully and finely embedded in the architectural constructions framework of the past. It can, therefore, be contended that technology and science should be exploited with outstanding regard to peculiarities and features of specific and local areas.

Currently, the undesirable city conditions and the often human being social crisis have greatly impacted in the identification and eradication of authentic residential and human

being areas. Originality and identity have become challenging in the modern world (Jones et al., 49). Since the identity notion originates from historical consistency and progress, the conservative human has attempted to adopt a standardised Asian approach in retaining his true identity while connecting to the Supreme Being. This attempt has produced both abstract and ethical effects and physical and concrete manifestations (Yin, 63). Urban constructions and architecture are a product of society and human being interactions. With this in mind, history has a unique impact and effect on architecture therefore, it can be contended that architecture exceeds simple building meaning limits by reflecting the resident identity (Rashid and Dilshad, 39).

Just like the past, architecture has exploited specific types of technology; traditional and modern technology. Traditional technology is rarely documented but modern technology is consistently written and documented (Asquith and Marcel, 75). Various traditional architecture methods are describable but the basic underlying theory is defined by the need of traditional technology. Expert skill and knowledge were for service for industrial experts in traditional technology, unlike modern technology where new expertise and knowledge are in service for scholars. Conventions and local culture devised the basis for traditional technology whereas modern technology is motivated from society viewpoints and new outlooks.

Apprenticeship was the mode of instruction in the traditional technology, unlike new technology which is developed and conveyed by educational and industrial institutes. To add on to the mentioned contrasts, the two technology types differ in application and implementation manner in architecture (Dawson and John, 71). Modern technology plays a huge role in identity eradication and space importance and elements of architecture. As per traditional architecture, for instance, a fireplace presence in residential living room building offered a socializing and gathering tool for family members promoting and/or developing an

intimacy sense however, the modern architecture has eliminated fireplace presence resulting in the placement of modern and new equipment which lack to meet or fulfil spiritual and social roles.

Modern technology application has created discrete and independent space elements and has led to industrialisation and mechanisation of architecture. These circumstances have made it almost impossible for architecture to play a transformative role in technology conception towards special humanistic ideas in values relating to space. The architecture nature as a result as given way a technological event and this technological event will, in turn, be changed into a humanistic phenomenon (Dawson and John, 85).

Pillar fewer buildings and thick walls with huge outfalls and flexible and amusing spaces can be adjusted to fit specific individual needs. This is one of the positive impacts of technology on architecture. House is a life machine. Some architects believe that technology has led to the advancement of architecture. The merit and value of technology are in the beauty and innovation of architecture (Engel, 39). Unforeseen and unprecedented developments have been reached by technology. Any form of audacious and innovative design is possible with technology. Technology developments should not be constricted to construction structures rather the technology effect on architecture is noticeable in most if not all industrial production aspects which are applied and exploited in architecture (Asquith and Marcel, 81).

The Beyond the two-dimensional notion in human beings minds has been realised by computer utilisation in architecture. Photo production from computer related software like 3Dmax, AutoCAD and Photoshop are able to show and simulate any space designs of structures before construction.

There is a universal acceptance to modern architecture which facilitates flexible designs that result from structural complexities like those in beams and posts as contrasted by element portability, load bearing building, prefabrication and standardisation. Technology has facilitated removable and movable walls that do not bear loads.

Smart architecture is being emphasised increasingly by researchers that is, as an architecture that is able to grow in relation to user needs which constantly change and prefer the presence of organic elements. The incremental growth of this process defines the traditional architecture, with some complex and rigorous designs than modern architecture models which are generic and has been marginalised (Engel, 43).

### **Smart City**

Smart cities are products of intelligent and smart solutions and technology which facilitate the adoption of a minimum of five of eight smart city parameters. These characteristics are smart energy, smart technology, smart infrastructure, smart buildings, smart governance, smart mobility, smart security, smart citizen and smart healthcare (Bourdier and Trinh, 56).

Smart security and smart governance entail issuing of digital services and policies by the government to aid and enable the implementation and adoption of intelligent and green solutions by way of subsidies and incentives. Citizens should be able to access government services by digital means at a hundred percent rate (Bourdier and Trinh, 61). Virtual classrooms, computer-based training and distance learning will be key in education. There should be a reduction to below fifty percent in the crime rate. Urban security systems will be in place with identification management, cyber security and critical infrastructure protection.

There will be limited or no digital divide. There will be a considerable decrease in the informational gap between the haves and have-nots in smart cities unlike the current trend

where cloud computing usage has increased tremendously, their cyber warfare, ongoing deployment of 4G, mesh networking and cyber warfare.

Currently, there is significant use of bio-enhanced fuels and inductive charges. In a smart city, homes, cities and offices will be powered by kinetic energy which will be collected from cycling and walking. There are projections that by the year 2020 multi-segmented grids, the photovoltaic glass will arrive.

Smart homes will be available in smart cities. These smart homes will be characterised by movable walls which have close and relatively high-performance modern housing (Forster, 59). The applications that will be used to control home security and lighting will be wireless devices with high prevalence. Currently, there is a wide usage of smart appliances like next generation microwave ovens, refrigerators and air conditioners that are internet enabled.

Unlike the current healthcare where doctors prescribe medicine to the patient, the smart city healthcare will have merged health and social network records creating a sharing and effective medical society with access to all relevant information.

### **Tsunami(R) house**

Most governments affected by tsunami came up with policies for population resettlement and construction along the coastline. The models shown facilitate wall pressure with minimal restraint (Waterson, 14). Horizontal deformations from the plane movement for a wall indicating that the head wall movement on the tsunami house is gradually less in comparison to the currently built houses. The small-headed wall deformations imply that the threshold for collapsing is at high pressure since masonry collapse is often initiated by the overturning wall due to plane instability. Withstanding the circumstances, the new design can resist a wave of quadruple intensity, unlike traditional designs.

The roof cover for a tsunami house should consist of tiles or tins to provide protection, economic, against sun and rain. The roof structure should be made of artless elements that correspond to traditional construction skills. There should be a raised platform to enable water drainage below and provide a healthy ground. A tsunami safe house should have heavy collapsible bamboo partitions to form a ventilated and porous skin which is upgradable (Waterson, 25). The core elements of the construction of a tsunami safe house should be made blocks, concrete, to offer high resistance without preventing flowage of water in case of tsunami occurrence.

### **Chi She Art Gallery, Xuhui, Shanghai, China**

This gallery exhibits altitude in favour of realism; attempting to achieve special appeal, harmonious integration with the environment and creating a formal representation which corresponds with the mission, artistic, embedded inside. The building will be looked at for a provision a unique and abundant art space containing varied artistic occasions like creative workshops, unforeseen communication and oddities (Young and Michiko, 43).

The initial walls, exterior, were retained which was followed by basic performance advancement and structure reinforcement. This was done to offer maximum space for exhibition. To maintain the space sensitivity of the Chi She Art Gallery, the roof has been partially elevated to create space between where people can view the sky. Additionally, the structure of the roof has been replaced by lightweight tensioning string wood like structure which in partly efficient in obtaining skylight and show climate changes offering a sense of order and harmony (Young and Michiko, 49).

Furthermore, the greenish grey bricks coordinate with the monumental building on the exterior part at the main park interface. The entrance wall is curled up generating a wrinkled like wall texture forming the best form of part manipulation. This manipulation

shows architectural expressions which are a profile embodying the existing cultural trends that are tradition reliant.

To complete the masonry process which cannot be articulated by traditional technology, a robotic masonry fabrication tactic was applied in an attempt to accomplish the premier task of using advanced digital fabrication technology constructed on the site. The gallery's external walls were constructed by recycled greenish green bricks from the traditional building and constructed with the aid of mechanical arm technology generating a polished morphological surface indicating the vitality (Forster, 67).

The coordinated facilities of robotic masonry fabrication and the elaborately built mortar bricks by craftsmen making the brick ancient material thereby meeting the new era requirements and achieving the exceptionally designed model presentation. The old brick decay integrated, seamlessly, with the display, stretch, of walls curving thus narrating the relationship between bricks and people, construction and machines, culture and design which will permanently spread under the sun from the walls, external.

### **Conclusion**

The societal population has increased greatly. This has changed both the specific and general people needs, hence, construction methods and styles together with building materials should be re-examined and changed accordingly. In this article, I have emphasised the employment of consistent technologies with cultural, local, practical and economic factors in the society. Therefore, relevant and appropriate technologies should be utilised by the architect to avail him/her with best tools and resolution. The arrival of the industrial revolution in westernised societies and use of better building materials, construction technologies have been improved and materials like concrete and steel began to be used in the construction of buildings.

In the modern architectural debate, the tendency of placing contemporary designs in a hermetic class where both modern and traditional examples are displaced from each other, therefore undermining any transmission possibility of lessons and notions between the two irrespective of findings, emerging, from research studies where environmental perception and technological advancements and knowledge are uniquely modern. This tendencies limits slows and limits the development promise of a sustainable architecture.

Local contemporary designs offer a unique rich repertoire of knowledge, architectural, in the design field, sustainable tactics, innovations and theoretical fields. Solutions, local, are honed by social and culture logic (Oliver, 2003) therefore adding a special meaning to designs. Most criteria for defining modernist design have been occasionally implied to be radical innovations, are inspired by traditional designs where cultural, special, social, technological, aesthetic and physical factors combine to form a challenging definition.



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