THE EVOLUTION FROM BIOPHILIA TO TECHNOBIOPHILIA

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Abstract

Struck by COVID, Biophilia has gained momentum both at the individual and societal level. Human attraction for Nature must serve as the foundation for building a positive and life-affirming relationship with the environment, thus creating a human-planet-environment continuum. Technobiophilia is the harmonious integration of the natural with the virtual world through dual love of nature and technology and technobiophilic practices integrate nature with technology, maintain harmony and stability through a tech-nature balance and support future pro-environment practices bridging nature and technology.

Keywords**:** sustainability, pro-environment, climate change, landscape design, nature-tech balance

The Rise of Biophilia

The concept of nature as restorative is central to the study of 'ecopsychology' which the American Psychological Association terms 'environmentally focused psychologies'. This novel paradigm called 'ecopsychology' was coined by eminent historian Theodore Roszak in 1992 and consists of a transdisciplinary field with the aim to focus on human-environment reciprocity in terms of development and behaviour. The human-planet-environment continuum is key to Ecopsychology.

Erich Fromm, a renowned psychologist was the first to use the term 'biophilia' to describe human inclination towards everything with life and living. His system of thought originated at the peak of the environmental movements of the 1970s. Fromm opined that human attraction for Nature must serve as the foundation for building a positive and life-affirming relationship with the environment.

E.O. Wilson, the acclaimed biologist proposed that Biophilia or human affinity for environment is not only at the level of psychology, but is rooted in our genetic make-up, that is in our very biology. **E.O. Wilson defined biophilia as "the innate attraction to life and lifelike processes"**. Wilson's pathbreaking book on Biophilia is the source of schools of thought in conservation ethics.

Biophilia in the Contemporary World

Four decades later struck by COVID, there is a massive ecological awakening and consciousness across the globe. Biophilia has gained momentum both at the individual and societal level. But the doubt remains that with prolonged lockdown and confinement and increasing 'screen time' whether Biophilia would still be as effective. Sue Thomas in her book 'Technobiophilia: Nature and Cyberspace'(2013) observes virtual exposure to nature could be stimulating and rejuvenating.

Technobiophilia is the harmonious integration of the natural with the virtual world through dual love of nature and technology. An animated cascading waterfall in a screensaver or 'liking' a photograph of a sunset or a forest trail on social media can urge us to connect with nature restoring energy and vigour, alleviating fatigue and stress. Technobiophilic practices integrate nature with technology, maintain harmony and stability through a tech-nature balance and support future pro-environment practices bridging nature and technology.

During the lockdown and physical distancing period of Covid 19, there were considerable impositions and restrictions on travel and tourism and Technobiophilia played an important role in our lives. To relieve the stress and monotony, people frequently appreciated nature and natural landscapes, wildlife, biodiversity (Sen, 2010a, b) etc on virtual media which helped them cope better with the real or physical world by relieving stress and anxiety.

Applications of Technobiophilia

Beatley (2020) provided significant suggestions for improvement of urban environment, as a city has moral obligations and must evaluate its impact beyond its defined boundaries. City governments need to reconsider the lives and well-being of future citizens as a move towards sustainability. Cities must be specifically oriented to fulfill their ethical commitment to local flora and fauna, and for all this access to nature is a pre-requisite. The importance of technobiophilia lies in its vast power in the field of social sciences in encouraging and promoting pro-environmental behaviour.

Technobiophilia in action for climate change could be excellently utilized to experience nature and its fierceness in a fictional setting in cyberspace to fully gauge the magnitude of disaster and impending doom of the climate change impact. A new circular economy model was proposed by Stefanakis *et al.* (2021) for adaptation to climate change. The concept of Technobiophilia through raising awareness and change of behaviour will seek support and participation of institutions to address challenges at global levels (Jacobs, 2021).

The Way Forward

Realizing the positive relationship between natural environment and health, there have been suggestions of immersive virtual nature experiences (Williams *et al.* 2021). The tremendous

potential of immersive virtual nature art is yet to fully explored. It is expected to contribute substantially to design strategies for social well-being through advanced augmented reality.

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