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INFORMATION TECHNOLOGY AND ARCHITECTURAL DESIGN AN OVERVIEW

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"Read not to contradict and confute, nor to believe and take for granted, nor to find talk and discourse, but to weigh and consider."

Francis Bacon

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ABSTRACT

" Architecture is not the product of materials and purposes - nor by the way of social conditions - but of the changing spirits of changing ages" 1

Over time, people, conditions, aspirations and technologies change. Man has always strived for a better world, improving life's conditions by innovation. His home, his city... the built environment around him has subsequently developed to its present day conditions.

Science, technology and the development process are interwoven with each other. They also indicate the wealth of social, political, and religious ideas that generate buildings and designs and how these ideas affect economic growth and development.

Evidence of the phenomenal works of architecture which have lasted through the ages indeed are proof of a supreme design and technological excellence of our predecessors. This architectural excellence which has been manifested in the great remains of the Egyptian Pyramids of Geza, the great cathedrals of the Renaissance etc., is undoubted and universally acknowledged. But is it only the architectural design ability which brings forth such wonders ?

It is difficult to know whether architecture is the recipient and the user of new technologies or the generator of them. In truth, architecture has probably acted throughout history as a kind of propagator where technological seeds, which have been germinated elsewhere, are nurtured and reared , eventually to be transplanted in and consumed by society in diverse ways. Thus the tools or the technology are major carriers of change. Throughout history tools have changed the user and subsequently dominated the designer. The ultimatum occurs when the tool becomes the driving force... could this be so with information technology ?

Whenever technology produces a tool that provides a change in order of magnitude of a previous ability, a profound change in society will be in the offing in a more or less rapid fashion. A classic example of this is the steam engine which multiplied man's muscle by a factor of ten - a simple change of one order of magnitude. The basic change in our society following this development - a change historians call the Industrial Revolution - has been unique in man's history.

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Similarly, the remarkable force with which the computer is entering our society is aptly illustrated by the above. With the introduction of new graphics software, the possibilities of creating or building virtual reality images of buildings and cities is made possible. The boring process of production and documentation of drawings is handled by the computer thereby leaving more time for creativity.

On the one hand this new ability could bring about supreme innovation and on the other hand it could inhibit creativity. It may change the user or the designer, thus dominate the design. The fact is, of course, that technology should be serving us, not making demands on us, let alone competing demands. If it gets to the point where we think of technology as anything other than our servant, then the building design - any design - beholds a bad beginning. The consequences of letting technology in, without having it under control, are dire. Unfortunately that is exactly what happens more often than not.

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references

1 Nikolaus Pevsner, Outline of European Architecture, Quoted in De Architecture, p24

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