

# TIME FOR ARCHITECTURE

On Modernity,  
Memory and Time  
in Architecture  
and Urban Design

Robert  
Adam

# Time for Architecture



# Time for Architecture:

## *On Modernity, Memory and Time in Architecture and Urban Design*

By

Robert Adam

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Time for Architecture: On Modernity, Memory and  
Time in Architecture and Urban Design

By Robert Adam

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For Sarah  
without whose support  
none of this would have been possible



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# FOREWORD

## TIME, ARCHITECTURE AND URBAN DESIGN

We are born and we die. The passage from birth to death moves us through stages in life that take us unavoidably to our demise.

This fact lies at the core of our existence and our awareness of it is the foundation of our understanding of time. We see time in our everyday experience. All life shares our mortality, some for less time and some for more. We experience events that reliably repeat themselves: the sun marks out the days, the moon the months and the seasons the years. Light and darkness determine our activity. Seasons and tides have guided us as hunters, farmers and seafarers. Time regulates our lives, from the cosmos to the cells in our bodies.

Our journey through our surroundings takes place in time. Where we start will be in the past and where we are going will be in the future. As we move forward, we look back for guidance to past events. Our judgements are founded on the understanding that every event or movement has a cause that precedes it. From this we predict the likely outcome of changes in our surroundings and decide what our future actions should be.

Although it is in the essence of our being and understanding, time cannot be grasped independently of its effects. It can be seen only when something changes or



moves. And the pace of change can vary: lightning can strike in an instant; crops grow in a season and trees in decades; landscape changes almost imperceptibly; heavenly bodies move across the sky but seem never to change. Civilisation has brought us the means of managing these variations by dividing time into equal measurable parts: from the hour, to the minute, to the second and eventually to a unit of Planck Time (the speed of light across a Planck length - about  $10^{-20}$  times the diameter of a proton).

However we divide it, the arrow of our time on earth flies in only one direction. Our lifetime may be finite, but our vision of the world is not. We know that the lives of our ancestors have come before us and we live with their inheritance. Our descendants will take our memory beyond our death, but still we seek immortality in deeds and religion. As the future becomes the past and relentlessly takes us to our grave, that knowledge leads us to the denial of time. In our imaginations, and fearful of the finality of death, we have created places without time where some hope that a spiritual essence of ourselves may live forever.

Science has taken us to measurements of space and time beyond anything we can experience and has led us to question time itself. As Albert Einstein demonstrated that time is relative to the speed and location of the observer, it followed that our present can be someone else's future and another's past. Perhaps then time has no direction, only relationships between different moments. As we theorise on the origin of the universe we come to a moment, the singularity, when not only the universe but all laws of physics, including time, seem to have come into existence.

\*\*\*\*\*

Buildings are created, decay and eventually perish. Villages, towns and cities are founded, flourish, decline and sometime will disappear. This same mortal passage defines all life and perhaps all things in the universe. It lies at the centre, not only of biology, but also physics. As it is the fate of all human beings, it shapes our perception of life and the organisation of society and becomes a primary subject of philosophy, anthropology and sociology. Architecture and urban design not only share their mortality with the rest of the universe, they serve societies that are shaped by their understanding of time. A better understanding of the impact of time on architecture and urban design can be achieved with an understanding of time as revealed in science, ideas and social behaviour.

In contemporary architecture, a vision of the future lies at the centre of design theory. An ideal future is put forward that turns away from our past and gives us our concept of modernity. At its heart, this is a proposition for the adoption of a particular intellectual and social relationship between the past, present and future and so is a theory of how we should behave in relation to the passage of time. This idea of modernity is only one aspect of our experience of the present, how it is informed by the past and where it will take us in the future. This is such a fundamental feature of our negotiation with our surroundings that it has been widely explored in philosophy, sociology and anthropology, all of which can enrich our understanding and response to modernity.

As the future is only ever speculation, it must be based on our experience of the past. The past no longer exists, except as personal memory or the survival of past objects and practices. The buildings and places we experience,

individually and as a community, are physical reminders of the past and our understanding of them creates memories that are both personal and shared. These shared memories are how a community collectively identifies with a particular place. The design of new buildings and places affects this identity and affects how a community takes its past into the future. The way we remember, and the relationship between memory and identity, have widespread implications and are the subject of sociological, anthropological and perceptual analysis. These studies can help us manage the relationship between new buildings and existing places and respond to the memories and identities of those who will live with them.

As buildings and towns come into existence, change and pass away, we can measure the passage from creation to extinction with hours, years and centuries. As places change with the passage of time they do not do so at the same rate or evenly. Parts of buildings and places change rapidly and others survive for long periods of time. Seen as the measure of change, time moves at different speeds with different phenomena. This is well-recognised in geology and biology and has now been identified as a feature of historical change. Urban geographers see variable change as an essential part of the urban condition and more recently it has been recognised as a key aspect of sustainability. We see long-lasting phenomena in a different light to ephemeral events and an understanding of the unevenness of time and how it affects the ways we use and understand buildings and places can make design more relevant, flexible and enduring.

Most architects and urban designers understand that movement through a place takes time and is a progressive experience. As people enter and pass through a building or place, they will see their surroundings in a sequence and

that will be part of the way the place is designed. As this is repeated time after time, the perception of the place will change. It will change from newness to familiarity, and possibly from enthusiasm to apathy and even to dislike. This change in the way an identical object is regarded can take place over years or generations. While some things that go out of fashion are simply discarded, buildings and places often survive long after enthusiasm for them fades. Time changes our use and understanding of the things around us.

The way a building or place can, without any significant physical change, move from being admired to being despised is often so disconcerting to designers that it barely impinges on how they make these places. It is as if our buildings and places spring into an eternal present where decay, transformation and decline are banished in favour of a perpetually benign future. In common with the reassuring imagination of places where our souls can reside forever, there are propositions that some principles of design and beauty are perpetual and timeless. These share a very wide range of theories of the unreality of time from philosophy and cosmology to anthropology and myth.

Before any discussion of how to manage time in relation to the design of buildings and places can proceed, the first task must be to examine the idea that their design can be, in any respect, free from time itself.

# TIMELESS

... it is remarkable that mortals, once they had developed a passion for nobler things, grew concerned to construct buildings that would be permanent, and as far as possible immortal.

Leon Battista Alberti,  
*On the Art of Building in Ten Books*, 1450<sup>1</sup>

## 1. Timeless Architecture

The idea that architecture can be timeless has a widespread appeal. There are several books that present architecture and urban design as potentially timeless phenomena. Timelessness, as something that overcomes the transience of time, suggests the kind of permanence implied by the repetition of historic themes in traditional and classical architecture. This is clearly articulated in the title of the book, *Traditional Architecture: Timeless Building for the Twenty-First Century*.<sup>2</sup> The publication, *Timeless Architecture*, also charts the first ten years of the Driehaus Prize, which is awarded for ‘traditional, classical and sustainable architecture and urbanism’.<sup>3</sup> Christopher Alexander’s influential book, *The Timeless Way of Building*, in print since 1980,<sup>4</sup> is a hymn to a romantic ideal of traditional architecture and urban design.

From a quite different standpoint, winners of the Pritzker Prize, which has a record of giving awards to radical designers, are consistently described as timeless: in 2009,

Peter Zumthor's buildings were said to 'have a strong, timeless presence';<sup>5</sup> in 2012, Wang Shu is described in his citation as 'producing an architecture that is timeless';<sup>6</sup> in 2013, Toyo Ito is called 'a creator of timeless buildings'.<sup>7</sup> In the USA there is even a 'Timeless Architecture Award' given by the American Institute of Architects, although only to members from Pittsburgh.<sup>8</sup>



1. *Denver Public Library, Michael Graves, 1990. Built by one of the winners of the Driehaus Prize whose work is described as timeless.*





2. *Porta Fira Hotel, Barcelona. Toyo Ito, 2010. Built by one of the winners of the Pritzker Prize described as 'a creator of timeless buildings'.*



Architectural practices often simply claim that their work is timeless. There is a practice called ‘Timeless Architecture’ in California<sup>9</sup> and another in Massachusetts,<sup>10</sup> and there is an ‘Estudio Atemporal’ in Mexico City.<sup>11</sup> ‘Timeless’ can also be expressed as a subtitle to the firm’s name: Ascot Design in the UK describes its work as ‘timeless architecture’;<sup>12</sup> the Belgian practice ‘Architecture Responsable’ refers to its designs as ‘Une architecture intemporelle’;<sup>13</sup> and ‘Architekturbüro Hornstein’ in Nuremburg presents its work as ‘Zeitlose Architektur’.<sup>14</sup>

The suggestion of a lack of change over time does not sit easily with some architects concerned with overt modernity, but the appeal of timelessness remains strong nonetheless. These architects sometimes try to resolve this by resorting to an apparent contradiction in terms, linking modernity or innovation with timelessness. The British firm, MacCreanor Lavington, claims to ‘make architecture that is both contemporary and timeless’;<sup>15</sup> on the website of the Hamburg practice, Mollwitz Massivbau GmbH, its architecture is labelled as ‘Zukunftsweisend und zeitlos’ (trendsetting and timeless);<sup>16</sup> and Estudio Carbajal, from Seville, say that ‘perseguimos una arquitectura contemporánea ... una arquitectura atemporal’ (we pursue a contemporary architecture ... a timeless architecture).<sup>17</sup> The Danish architect, Bjarke Ingels, tells us that, ‘the only way to be timeless is to be of your time’.<sup>18</sup> The star architect, Frank Gehry, seeming to recognise the contradiction while maintaining an aspiration for timelessness, stated that ‘architecture should speak of its time and place, but yearn for timelessness’.<sup>19</sup> An *e-architect* discussion by Roland Wahlroos-Ritter,<sup>20</sup> gives a typical resolution to the problem, drawing together all sides by reducing the issue to one abstract feature: ‘associated with Classicism as well as Modernism, *white* has the allure of timelessness.’ (my emphasis).

The desire to, in some way, stand aside from the physically and culturally destructive passage of time is clearly powerful. The microbiologist and philosopher, Darryl Reanny, saw this as a prime motivating force for creativity. 'From this yearning for forever, this aching sense of passing time, springs most of humanity's greatest achievements in art, music, literature and science. Paradoxically, it is the very awareness that life is fleeting on the wings of time that directs human activity towards the creation of artefacts that possess the durability their creators' lack, images in carved stone and marble, words written in books, beauty woven from sound, ideas captured on film. Most of civilisation is a by-product of the quest for immortality.'<sup>21</sup> The German philosopher and commentator on architecture, Karsten Harries, identifies this urge in architecture in his paper, 'Building and the Terror of Time', saying that, 'Architecture is ... a deep defence against the terror of time. The language of beauty is essentially the language of timeless reality.'<sup>22</sup>

This terror of time - of decay, mortality and oblivion - is a fundamental neurosis in the human condition on which is built religion and myth. As the designers of long-lasting structures, it is not surprising that architects seek to find ways to overcome this phobia with their work.

If architects are pursuing a piece of the same timelessness as religion and myth, can these help us to understand or advance the architectural objective?

## **2. Timelessness in Anthropology and Religion**

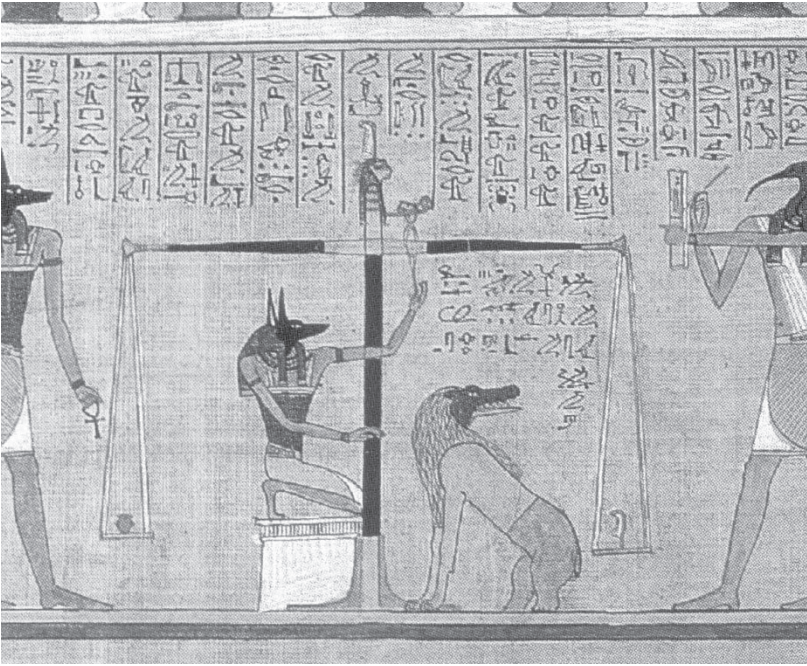
A window to our earliest perception of time may be found in the studies of tribal societies. The French anthropologist, Claude Levi-Strauss, observed that rituals make ancestors a present reality and that myths are 'machines for the

suppression of time'<sup>23</sup>. The British anthropologist, Sir Edward Evans-Pritchard, in his study of the southern Sudanese Nuer, notes that, 'the distance between the beginning of the world and the present day remains unalterable. Time is thus not a continuum but a constant structural relationship between two points.' Aboriginal tribes in Australia see in the landscape, and the ritual objects found there, the constant presence of their ancestors; the past and present live side by side.<sup>24</sup> The New Zealand Maori describe the past as 'the time in front of us'.<sup>25</sup> We should not assume that these views of time are a deliberate attempt to overcome chronological time; our modern sense of time was simply absent. Members of some Amazonian tribes do not count beyond ten and have no knowledge of their age. When converted to Christianity, the Arctic Circle Inuit were perplexed by the need to count days in order to observe the Sabbath.<sup>26</sup>

Marking out the repetition of ritual can be joined with the everyday experience of cyclical time. Solar, lunar and celestial cycles, tides, seasons and the migration of herds reliably repeat themselves. The beginning and end of these cycles are locked into a perpetual repetition that links the present with an endless series of past events. Cycles could be seen to sit within other cycles: the solar with the seasonal; the tidal with the lunar. As societies became more complex, new cycles were added to those that had been observed. The Mayan civilisation had a series that stretched to 63,081,429 years. Hindus also believe in interlocking cycles, the longest of more than eight trillion years and the smallest of 4,320,000 years. Greek and Roman Stoic philosophers saw history as an ever-repeating series of ages, each of which ended in conflagration and a new beginning. For the Stoics, God was an eternal presence above this perpetual duplication of history. For Hindus and

Buddhists, eternity was the release of the soul from this endless repetition and entry into a state of timelessness.

In ancient Greek mythology, the soul was immortal and on death went to the underworld or Hades, which had its own pantheon of gods and a complex hierarchy. Greek philosophers went beyond the traditional pantheon of gods and for Plato there was 'the Father that ... set about making this Universe, ... an eternal image, moving according to number, even that which we have named Time.'<sup>27</sup> Aristotle believed that, in a universe characterised by movement, there must be a supreme God who is the eternal unmoved mover.<sup>28</sup> Religion in ancient Egypt was founded on preparation for life after death and the belief that the soul would be judged by the god Anubis and, if it had been virtuous, would share 'an everlasting heaven' with the combined gods, Osiris and Ra. The Judaic tradition had a solitary creator-God but he was made into a paternal figure that watched over the Jewish people and judged souls for entry to a timeless afterlife, be it heaven or hell: 'Multitudes who sleep in the dust of earth will awake: some to everlasting life, others to everlasting contempt.'<sup>29</sup> This tradition was passed down to Christianity: 'And this is the eternal life, they that know the only true God, and Jesus Christ whom you have sent.'<sup>30</sup> Muslims share the vision of a single God and an eternal afterlife in Jannah: 'gardens, with rivers flowing beneath,'<sup>31</sup> which is reserved for, 'those who have faith and work righteousness, they are companions of the garden. Therein shall they abide forever.'<sup>32</sup>



3. *The Egyptian god Anubis weighing the heart of the deceased for admission to heaven. Many religions promise a life after death free from the corruption of time.*

Most organised religions share the promise of a life beyond that of mortal existence in a place or condition that is eternal, free of time and its path to decay, degeneration and death. This is part of the recent and, for some, the contemporary culture of modern societies. Any reference to timelessness, as a contrary to more prosaic qualities such as 'endurance', 'longevity' or 'permanence', will make, deliberately or inadvertently, some allusion to the metaphysical concept of a place or condition where time no longer exists.

### 3. Timeless Architecture and Religion

In most modern western societies, religion is predominantly a matter of personal faith and is rarely used as stand-alone justification in debate on practical matters. And yet, as we have seen, timelessness, a supernatural concept, is consistently cited as an architectural objective.



Catholic town in 1440.

1. St Michael on the Hill, 2. Queen's Croft, 3. St Thomas's Chapel, 4. St Martin's Abbey, 5. All Saints, 6. St John, 7. St Peter, 8. St Albinus, 9. St Maria, 10. St Edmund, 11. Grey Friars, 12. St Catherine, 13. Guild hall, 14. Prison, 15. St Olave, 16. St Botolph.

4. *The ideal Gothic city, illustrated by Augustus Welby Pugin in Contrasts, 1813. Pugin saw Gothic architecture as perfect and incapable of improvement.*

In the past, the connection was made between divine timelessness and architecture. In the twelfth century, Abbot Suger of St Denis, considered to be the first patron of Gothic architecture, would describe those who engaged in the project as, ‘focusing the undivided vision of their mind upon the hope of eternal reward, they zealously seek only that which is eternal.’<sup>33</sup> In the late fifteenth century, Pope Sixtus IV, patron of the early Renaissance in Rome,



was quoted by his contemporary biographer, Giannozzo Manetti, as referring on his deathbed to, 'the grandiosity of monuments and buildings that are ... eternal'.<sup>34</sup> In the nineteenth century, Augustus Welby Pugin, promoting the revival of Gothic architecture in *The True Principles of Pointed Architecture*, could see that no improvement could be made over time, 'Indeed, if we view pointed architecture in the true light as Christian art, as the faith itself is perfect so are the principles on which it is founded.'<sup>35</sup>

Such explicit connections between architecture and the eternity of religious faith are virtually unknown today. There has been one notable exception. In 1982, the British classical architect, Quinlan Terry, wondering 'who was the genius who invented such a timeless universal recipe for architecture', declared his belief that the classical Orders were derived from the Temple of Solomon.<sup>36</sup> Terry is a devout Christian and was following a long tradition, which largely died out in the mid eighteenth century, of associating the Greek and Roman Orders with an underlying Judaic tradition, so justifying them for Christian use. Although Terry was historian enough to know that the proportions and details of the Orders have changed over time, this presumed Biblical endorsement gave them a particular legitimacy. There were a few enthusiastic supporters, such as the Norwegian architect, Piotr Choynowski, who wrote in the *Sacred Architecture Journal*, under the title 'Change and Eternity' in 1998: 'But, not everything changes. The Classical Orders, for instance, do not change, and neither do beautiful proportions. These unchanging elements remind us of Eternity. That is what Mr. Terry's story catches in a nutshell. Orders with their elements and proportions are, we believe, reflection of the divine aesthetic will, not unlike the laws of ethics and logic. (sic) After all, the ultimate proportional reference is the



human body, created in the image of God.<sup>137</sup> Generally, however, Terry's views were regarded with incredulity by the architectural community and even embarrassment by his fellow classicists and must be regarded as an isolated curiosity.

The idea that there is something timeless in a more abstract idea of proportion has a much more widespread following. This too has a long history.

#### 4. Proportion and Religion

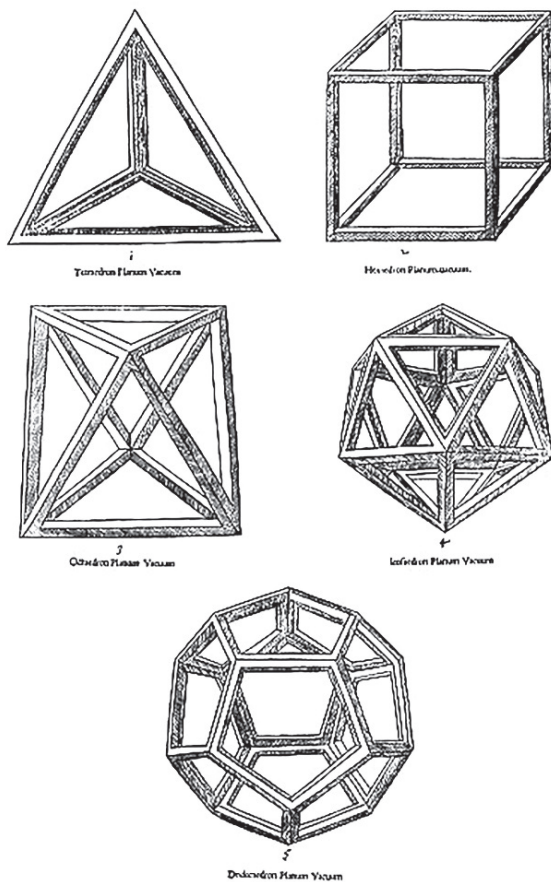
Any two dimensions are proportional to one another, be it 1:1 or 1:1.414, and their relationship can be so described without dimensions. In times when there was no universal system of measurement, the most effective way to make one shape in one locality the same as another in another locality was with proportions. And the purpose of transmitting that information would most likely be to make the second thing like the first thing because the first thing was successful or desirable. In this way, the re-use of specific proportions would naturally become associated with positive qualities, such that the idea could arise that the desirability resided in the proportions more than the things which they described.

Some measurement would be required to obtain the proportions and reproduce them, and measurements, until the advent of the metric system (with the metre based on the division of an inaccurate calculation of the diameter of the earth), were derived from parts of the human body, sometimes a monarch or just a formalised convention. In many ancient religions, men and women were also created in the image of gods or the gods were represented with human images. In ancient Greek and then Roman myth,

'Prometheus ... made man in the likeness of the blessed ones ... for there is nothing more excellent than men, apart from the gods.'<sup>38</sup> Although it is now interpreted allegorically in Judaic and Christian theology, the Genesis story that 'God created man in His own image',<sup>39</sup> probably had ancient literal origins. Even without literal metamorphism, men and women were divine creations. It would follow that idealised proportional relationships, found by measuring the human body, could be those given by the gods or be those of the gods themselves. This would give timeless authority to any relationship between these and the same proportions when applied to other objects.

Proportion and measurement are two of the mathematical abstractions that can be used to describe the world. The first evidence of a complex method of abstracting reality and the combination of those abstractions in different ways - such as addition, subtraction and multiplication - to obtain consistent predictive results, is found in about the third millennium BCE. This was used primarily for the purposes of trade and, significantly for this discussion, to predict astral events, considered to be divine. In the sixth century BCE, the Greek mathematician and mystic, Pythagoras, explored the consistency of mathematical calculations and geometric forms and related them to the movement of the heavens and the proportions of the scale of plucked strings that produced musical harmony. He assembled these observations into a mystical cult based on the principle that, 'number is the ruler of forms and ideas, and the cause of gods and demons'.<sup>40</sup> In the fourth century BCE, the philosopher, Plato, believed that everyday reality was an illusion and that all that we experience is a lesser impression of ideal 'Forms' in the mind of 'divine intelligence ... which abides in the real eternal absolute'.<sup>41</sup> At the heart of these ideal Forms were five geometric

volumes, called Platonic Solids, which, ‘when the work of setting in order this Universe was being undertaken ... God began by first marking out [the elements] into shapes by means of forms and numbers ...[with] numerical proportions which govern their masses and motions and their other qualities ... and thus ordered all in harmonious proportion’.<sup>42</sup>



5. *The Platonic solids. A series of geometrical shapes proposed by the ancient Greek philosopher, Plato, as created by a divine intelligence and so eternal.*

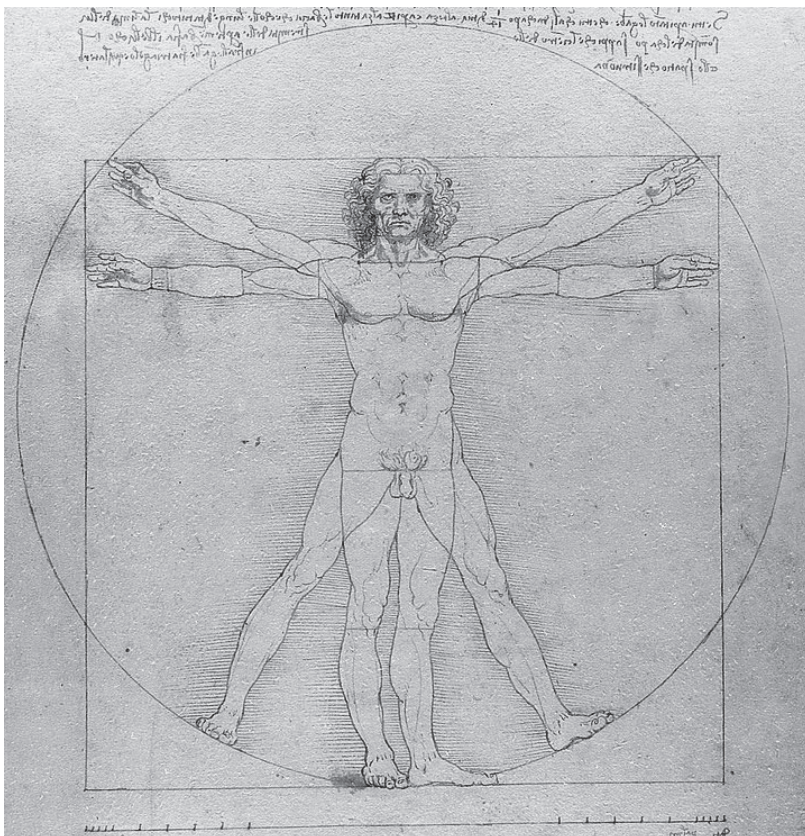
Plato's idea of a divine vision of ideal Forms, physical as well as moral, and their mathematical counterparts, remained influential for centuries to follow and had a profound impact on Christian theology. St Augustine's route to his Christian conversion in the fourth century CE was through Platonism. The Renaissance philosopher, Marsilio Ficino, published *Theologica Platonica* in 1482 in which he sought to 'paint a portrait of Plato as close as possible to the Christian truth,'<sup>43</sup> stating that, 'The human mind ... proceeds from particular forms to universal and absolute forms.... by way of mathematical forms'.<sup>44</sup> In Britain in the seventeenth century, a group of philosophers called the 'Cambridge Platonists' took Plato's idea that 'intelligible forms' lay beyond human perception<sup>45</sup> into Protestantism.

## 5. Proportion and Metaphysics in Architecture

For architects, the use of proportions was practical and aesthetic. In the pre-modern world, practicality was not seen as distinct from the spiritual or the symbolic. Proportions were often seen as more than a means of setting out and were also a reference to their metaphysical origins.

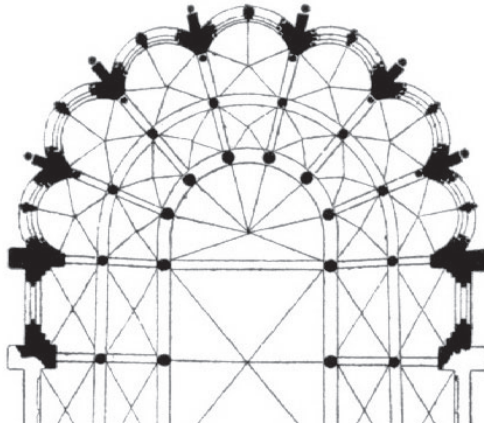
The only complete treatise on architecture that came down to us from the ancient world is the *Ten Books on Architecture* by Marcus Pollio Vitruvius, written in the late first century BCE. His books may not have been as significant in their day as they became through their survival, but Vitruvius mentions his debt to lost Greek treatises, 'the Ancients', and he most likely follows a long tradition of literature on architectural practice. He makes specific reference to the mathematical legacy of Pythagoras and Plato and he seeks to achieve 'symmetria', which 'derives from proportion'.<sup>46</sup> Almost all his architectural descriptions are based on proportions, which are related to

those of the human body and 'drawn from the true customs of nature.'<sup>47</sup> In doing so, Vitruvius is following the Ancients who 'were handing down proportional sequences for every type of work ... especially for the sacred dwellings of the gods.'<sup>48</sup>



6. *The Vitruvian Man by Leonardo da Vinci, 1490. Part of a commentary on the ancient Roman book on architecture by Marcus Pollio Vitruvius. In common with many ancient sources, Vitruvius believed that the proportions of man were God-given and eternal.*

In the Middle Ages, specific numbers were imbued with divine meaning. For example, in the twelfth century Abbot Suger had his new choir of St Denis, 'raised aloft by twelve columns representing the number of the Twelve Apostles and, secondarily, by as many columns in the side-aisles signifying the number of the [minor] Prophets, according to the Apostle who builds spiritually.'<sup>49</sup> A century later, the Franciscan, St Bonaventure, made clear the relationship between divine number and proportion, 'there is no beauty and pleasure without proportion, and proportion is to be found primarily in numbers; all things must have numerical proportion. Consequently, number is the principal exemplar in the mind of the Creator and as such it is the principal vehicle that, in things, leads to wisdom.'<sup>50</sup>



*7. Plan of the choir of St Denis, France, 1144. The design of the choir is recognised as the first gothic building. The numerical setting out of the building had divine significance.*

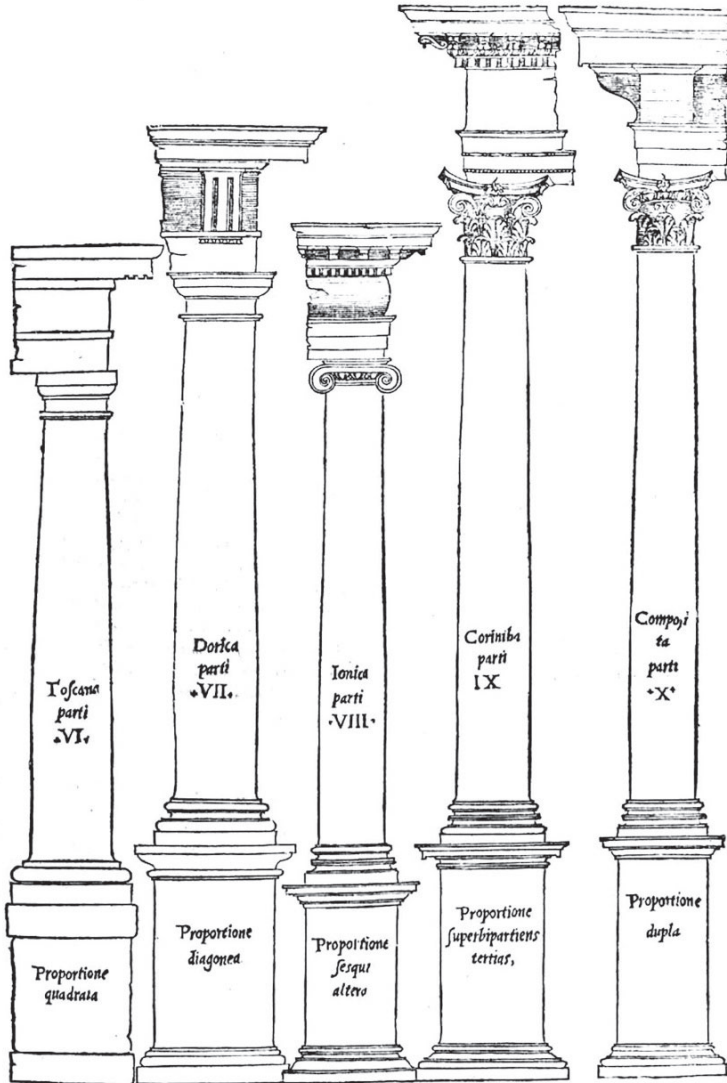
Although Vitruvius' books were known to clerical scholars in the Middle Ages,<sup>51</sup> his rediscovery in the Renaissance, when antiquity became the model for all the arts, made it into the template for a new series of treaties on



architecture. The first of these, Leon Battista Alberti's *On the Art of Building in Four Books* of circa 1450, is clearly modelled on, 'Vitruvius, an author of unprecedented experience'.<sup>52</sup> Alberti seeks a 'refined variety, in accordance with the demands of proportion and harmony.'<sup>53</sup> In the manner of the Renaissance, the significance of numbers is assigned both to pagan gods (Mercury for five) and to the Christian God (seven)<sup>54</sup> and the proportion of 'the primary cube ... is consecrated to the Godhead, because the cube of one remains one.'<sup>55</sup>

Most famous of these treatises is Andrea Palladio's *Four Books of Architecture* of 1570, where Vitruvius is his 'master and guide'. Palladio, following the by now established Vitruvian method of describing architecture by its proportions, describes beauty in terms of proportion, which, 'will result from the form and correspondence of the whole, with respect to the various parts, of the parts with regard to one each other, and there again to the whole.'<sup>56</sup> For Palladio, architecture for 'the almighty and supreme God...ought to resemble this very great one ... in such a manner, and with such proportion ... to make them in the best and most noble form our condition will permit.'<sup>57</sup>

By the seventeenth century, the classical tradition was universal in the western world and, from Vitruvius and the Renaissance treatises, had a fully established proportional descriptive methodology. The foundation of classical architecture was acknowledged to be the classical Orders, described by the proportion of the parts to the diameter of the lower part of the column. When Sir Christopher Wren made his famous declaration that 'Architecture aims at Eternity' he qualified this with the much less quoted, 'and therefore the only Thing incapable of Modes and Fashions in its Principals, the Orders.'<sup>58</sup>



8. The five classical Orders of architecture from, *Complete Works on Architecture and Perspective*, Sebastiano Serlio, 1537–75. In the Renaissance the ancient proportions of columns and their associated details were considered to be perfect and beyond improvement.



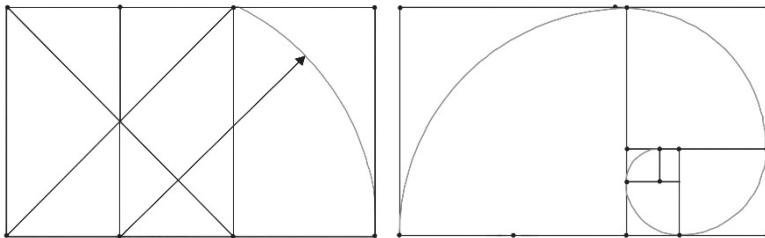
This method of describing classical architecture survives to this day and the more general idea, often repeated, that beauty in architecture depends on proportion, is a legacy of this history. Christopher Wren, however, lay at the end of the period when timeless divine authority could be given for particular proportions. The scientific revolution of the Enlightenment, combined with an archaeological outlook on ancient architecture, took away the recourse to divinity, called into question the authority of the ancients, and revealed a wide variety of proportions in the classical architecture of antiquity. While proportion would remain an effective aesthetic device to balance and coordinate design, it was no longer generally accepted that there were timeless ancient proportions, that there were timeless divine mathematical ideals, or that proportions were a reflection of those ideals. Individual designers or schools of designers could choose proportional systems, but this would be a personal choice, or a choice to associate with another school of past designers. It would not be timeless.

Maintaining the memory of the ideal of timeless proportion, and uncomfortable with the recourse to the subjectivity of aesthetic judgement that results from the arbitrary choices of design methodology now available, many designers still seek some higher authority for their work by recourse to some proportional system. This system is the Golden Section, which is the last recourse to a genuine concept of timelessness in architecture.

## **6. The Golden Section**

The Golden Section is a proportional system derived from a numerical series discovered in Europe<sup>59</sup> by Leonardo Bonacci, a mathematician known as Fibonacci, at the end of the twelfth century. The ratio between the numbers in

the sequence, as it gets larger, comes closer and closer to 1.6180339887..., an irrational number usually summarised as 1.618 and given the Greek letter phi,  $\phi$ . This can be made into a rectangle with the ratio of 1:1.618 which can be constructed geometrically by taking a radius with its centre off half a square to one of the opposite corners and projecting it down to the line of the centre at the base of the square. The numerical sequence and the rectangle have some remarkable qualities. In the nineteenth century these were given the epithet 'golden' which enhanced their popular lustre. To this has been added, confusingly, the term 'Golden Mean', which in philosophy and ethics means a middle way or moderation, which is something quite different. (It is a misapplication of the ancient Greek mathematicians' early description of the ratio as the 'extreme and mean ratio'.) It is also often confused with the  $1:\sqrt{2}$  or 1:1.41421356237 rectangle which is the proportion of A-sized paper.



9. *The setting out of the Golden Rectangle with the proportions of the mathematical Fibonacci series (a). This can be developed to set out a spiral (b).*

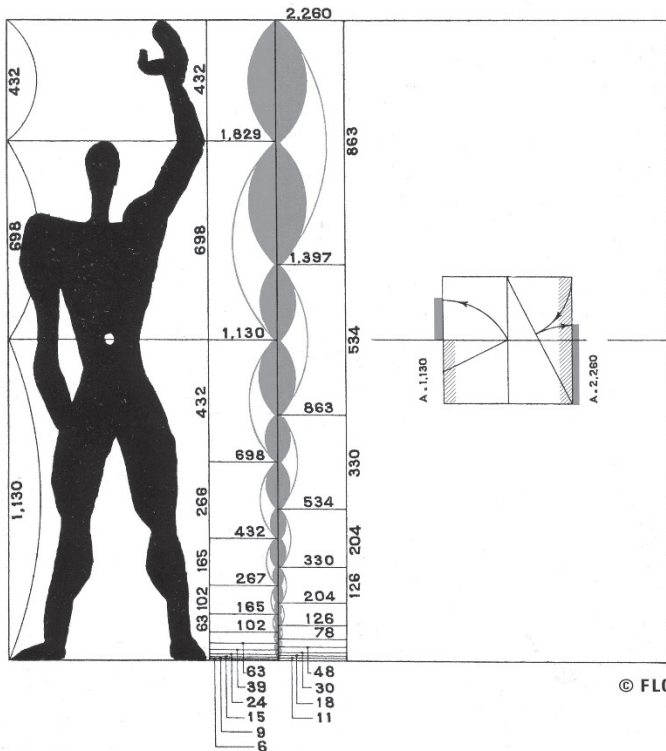
Fibonacci's numerical series was originally calculated from the theoretical expansion of an isolated rabbit population from a pair of mating rabbits. The series starts with one pair mating which creates one other pair, a month later one more pair is born, making two pairs, and the next another,

making three. In the fourth month, the first progeny of the original pair has reached reproductive age and give birth to another pair, as well as their mother producing her fourth litter, making five, and the sequence increases accordingly. The sequence this produces is 1:1:2:3:5:8:13:21:34 and so on, the sum of each pair making the next in the sequence. The geometry derived from this numerical sequence is also the most efficient spatial arrangement for certain patterns of growth in plants and can produce spirals apparent to the human eye.<sup>60</sup> The 1:1.618 golden rectangle can be divided into two halves, one of which is a square and the other a smaller golden rectangle. This can be done progressively and, by joining the radii of the squares, a spiral can be formed. The ratio is also found in a number of other rational geometric forms, most notably the pentagon and the star pentagon.

This combination of attributes has led to a level of interest and enthusiasm that has come to resemble a cult. The belief that the Golden Section or Ratio is a phenomenon that underlies a great deal more than a set of interesting mathematical principles has led to a search for evidence of its concealed presence in nature and human perception that often goes beyond any reasonable standards of scientific proof or historical evidence.

'The Timeless Wisdom Project' has a section on the 'Golden Mean' where it is presented as 'one of those mysterious natural numbers, like e or pi, that seem to arise out of the basic structure of our cosmos.'<sup>61</sup> There is a collection of books on the subject ranging, *inter alia*, from *The Golden Section: An Ancient Egyptian and Grecian Proportion*, to *The Divine Proportion* or *The Secret Code*. Many of these make extravagant claims for the ubiquity of these proportions in nature, art and archaeology. In the

simply-titled *Golden Section* by Scott Olsen,<sup>62</sup> there are claims that it was used in Egyptian, Babylonian, Indian and Chinese cultures, stone circles and Neolithic tombs. These claims are usually based on *ex post facto* measurements without contemporary documentary evidence. If this creates some doubt, Scott Olsen answers with the question, ‘Why were they forbidden to reveal it?’



10. A representation of the Modular Man as illustrated by the modernist architect, Le Corbusier, and based on the Golden Rectangle.

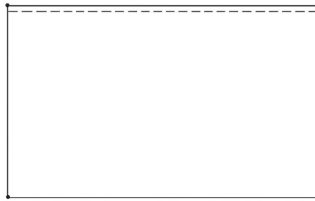
Putting aside some of the more questionable assertions, from reading these works and a plethora of papers and websites, one might at least be led to believe that all

spirals are based on the Golden Section, that all flowers have petals numbered in the Fibonacci sequence, or that the branching of all plants is based on Golden Section proportions, however none of these things is true.

‘Golden’ proportions have been adopted by some architects as a timeless system and is one of the few ideas that unifies traditionalists and modernists. For traditionalists, the belief, as claimed by an organisation called ‘Timeless by Design’,<sup>63</sup> that, ‘Greek architects used the Golden Section ... to design everything from the Parthenon to oil vases,’ gives the Fibonacci series the sanctity of antiquity. For modernists, the leading practitioner and theorist, Le Corbusier, presented the Golden Ratio as ‘A Harmonious Measure to the Human Scale Universally Applicable to Architecture and Mechanics’, in the subtitle of his book, *Le Modulor*, in 1950.<sup>64</sup>

The evidence for the use of the Golden Ratio in architecture at any time before the nineteenth century is very tenuous indeed. All the evidence for its historical use is based on the ‘discovery’ of proportions on significant buildings. This is supported by similar ‘discoveries’ on paintings and other objects and these are collectively given as evidence that it is the fugitive concept of beauty itself that is represented by the Golden Ratio. There is even a claim to research that proves that the beauty of the human face is based cross-culturally on the same proportions. These discoveries are often of a very general nature. The precision of the 1:1.618 proportions are not matched by precision in the scale of any of the following phenomena to which they are applied: the likely accuracy of ancient construction processes, the rationale for the choice of the key points or lines from which the proportions are taken, or the discovery of underlying abstracted representations of the proportions. Furthermore, the discoveries have none of

the rigour of academic research: they lack breadth of sample, the testing of alternative models and the ability to disprove them. There is only a 3% difference between the more rational use of the whole-number proportions 3:5 or 1:1.666 and 1:1.618. With the imprecise, small-scale plans or the selective choice of key points used in these discoveries, similar outcomes become plausible. It is clear that the proportions have been discovered because it is *believed* they will be found, not as the outcome of critical analysis or because their use is evident.



#### 11. Golden Section and 3:5 rectangle.

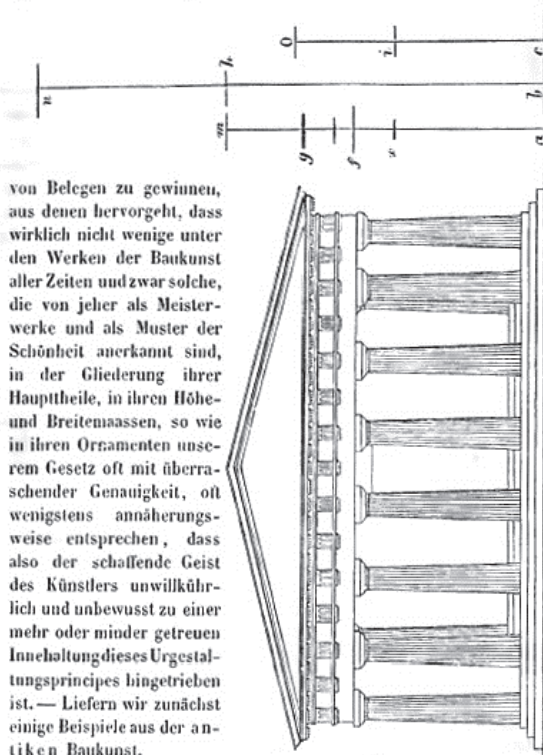
Notwithstanding centuries of architectural theses with practical advice on proportion from various nations, the Golden Section is not mentioned in relation to architecture until 1854. The use of whole number proportions are, however, consistently recommended in earlier theses. The only exception is the  $\sqrt{2}$  rectangle, or 1:1.414, which is formed by taking a radius off the diagonal of a square to the base of the square.

In the early years of the sixteenth century, the Italian Franciscan friar and mathematician, Luca Pacioli, wrote about the Golden Section calling it the *Divina Proportione* and was acquainted with Renaissance architects. Much is made of this relationship by promoters of the Golden Section with claims that he influenced Leonardo da Vinci, accompanied by further 'discoveries' of Golden Section

proportions in Leonardo's work. Pacioli did, indeed, write about the use of mathematics in architecture, but he maintained the principles set out by Vitruvius and recommended only whole number proportions.<sup>65</sup>

BEDEUTUNG DES PROPORTIONALGESETZES FÜR DIE BAUKUNST. 393

Fig. 157.



von Belegen zu gewinnen, aus denen hervorgeht, dass wirklich nicht wenige unter den Werken der Baukunst aller Zeiten und zwar solche, die von jeher als Meisterwerke und als Muster der Schönheit anerkannt sind, in der Gliederung ihrer Haupttheile, in ihren Höhe- und Breitemaassen, so wie in ihren Ornamenten unserem Gesetz oft mit überraschender Genauigkeit, oft wenigstens annäherungsweise entsprechen, dass also der schaffende Geist des Künstlers unwillkürlich und unbewusst zu einer mehr oder minder getreuen Innehaltung dieses Urgestaltungsprincipes hingetrieben ist. — Liefern wir zunächst einige Beispiele aus der antiken Baukunst.

An dem schönsten und vollendetsten Werke der griechischen Architektur, dem Parthenon zu Athen (s. Fig. 157) verhält sich

12. *Illustration of the Parthenon by Adolf Zeising in A New Theory of the proportions of the human body, developed from a basic morphological law which stayed hitherto unknown, and which permeates the whole nature and art, accompanied by a complete summary of the prevailing systems, 1854. Zeising was the first to propose that buildings were designed in accordance with the Golden Rectangle and the Fibonacci series.*

When in 1854 the retired German schoolteacher, Adolf Zeising, for the first time proposed the use of the Golden Section in architecture, the long title of his publication set the framework for all subsequent theories: *A New Theory of the proportions of the human body, developed from a basic morphological law which stayed hitherto unknown, and which permeates the whole nature and art, accompanied by a complete summary of the prevailing systems.*<sup>66</sup> Zeising was also the first to apply these proportions to paintings, the Parthenon and Gothic buildings, calling them ‘the fundamental principle of all formation striving to beauty and totality in the realm of nature and in the field of the pictorial arts’. After this date we could say with confidence that the Golden Section was a proportional system employed deliberately by architects and this is attested in their own statements.<sup>67</sup>

The earlier absence of any mention of the Golden Section cannot be accidental and it is stretching credibility too far to assume that centuries of architect-authors from different countries would have kept their use of it secret. Once any metaphysical rationale is removed, there is no sound basis for describing the Golden Section as timeless. Even if it were to be an underlying factor in the appreciation of beauty, it could only be so for human perception and, in the timespan of life on earth, the existence of *homo sapiens* is no more than the twinkling of an eye. As the Brazilian philosopher, Roberto Unger, tells us: ‘There is an infinite difference between an indefinitely long history and eternity. The invocation of an eternal universe is no more defensible than the appeal to an infinite initial singularity at the beginning of our present universe. In both instances, a mathematical idea, with no counterpart in physical nature, is made to do service for a missing insight.’<sup>68</sup>



Without religious, supernatural and metaphysical meaning, all reference to architecture and urban design is thrown back to a world where time moves forward, change happens, old ideas are replaced with new, what people like today they may not like tomorrow, and appreciation of beauty can be transformed by social conditions. It does not matter if these changes take a long time or an instant, it makes no difference if old ideas come back, these are still changes and they take place in time. In architecture and urban design there is no such thing as timelessness.

## 7. Tradition and the Integration of Time

While we can dismiss the use of the term 'timeless', if we set aside specious attempts to gain credibility by an allusion to some unnamed higher secular truth, it must be that those who use the expression wish to refer to some quality that in *some* way transcends some aspect of time.

If we turn for guidance to Christopher Alexander, perhaps the most prominent exponent of the idea of timelessness in traditional architectural and urban design, his meaning appears to be confused. His promotion of the 'timeless way' is circular: 'the timeless way is, in the end, a timeless one', and 'To seek the timeless way we must first know the quality without a name.'<sup>69</sup> The confusion becomes apparent when he mixes coming into being with timelessness: 'the same morphology, underlying all things, will always arise in the end – that the timeless way of building is a truly timeless one.'<sup>70</sup> But it becomes clear that Alexander does not really mean timeless as something outside time when he admits that, 'although it is true that nothing is perfectly stable, and true that everything changes in the end, there are still great differences of degree.'<sup>71</sup> So for Alexander, 'timelessness'

might be more accurately called 'relatively long-lasting' - a much less beguiling and more prosaic expression.

If we understand that the use of the word 'timelessness' does not mean something that stands outside time, but something that engages with time in a particular way, there is some sense in its connection with the use of tradition in design. The deliberate replication of an action or ritual can be seen as a means of negating the changes that have taken place between the repetition and the original event. This kind of repetition lies at the heart of tradition. Mircea Eliade, the philosopher and historian of religion, identifies this as the link our ancestors made with their founding ancestral and religious myths: 'through such imitation, man is projected into the mythical epoch in which the archetypes were first revealed. ... insofar as an act (or an object) acquires a certain reality through the repetition of certain paradigmatic gestures, and acquires it through that alone, there is an implicit abolition of profane time, of duration, of "history"; and he who reproduces the exemplary gesture thus finds himself transported into the mythical epoch in which its revelation took place.'<sup>72</sup>

Traditions are not just ancient phenomena. We are all aware of traditions in our everyday lives, from family and national ceremonies to dietary practice and formal clothing. The sociologist, Michael Young, sees custom or tradition, which he regards as identical phenomena, as a pervasive aspect of modern society, 'Custom is both architect and policeman of society, immobilizing time in a myriad characteristic ways, consigning itself to the collective unconscious so as to allow relatively effortless and cyclical reproduction of past behaviour in the present.'<sup>73</sup> He believes that everyday modern traditions also overcome time and, in doing so, lead to the surrender

of individual judgement. This is not revelation and myth, but the effect is much the same: 'Largely automatic habits [of tradition] take us out of time and into timelessness. The habit is not placed in a duration, and without duration there can be no chain of cause and effect into which one's will can be inserted.'<sup>74</sup>

Eliade finds in the use of traditions in architecture the same connection with mythical origins that he identifies in ritual: 'For traditional man, the imitation of an archetypal model is a reactualization of the mythical moment when the archetype was revealed for the first time. ... A "new era" opens with the building of every house. Every construction is an absolute beginning; that is, tends to restore the initial instant, the plenitude of a present that contains no trace of history.'<sup>75</sup> When the German philosopher, Hans-Georg Gadamer, defines the classical, the great tradition, as it is found in the human sciences today (contrasting them with the natural sciences) we can find echoes of Eliade's description of the archetypal model: 'The classical is what resists historical criticism because its historical dominion, the binding power of its validity that is preserved and handed down, precedes all historical reflection and continues through it... It is independent of all the circumstances of time, in which we call something 'classical' – a kind of timeless present that is contemporaneous with every other age.'<sup>76</sup>

Traditional architecture and urban design, by entering into the process of repetition from a venerated past, in some way and to some degree are seeking to make the past into the present. Every new use of traditional form makes a linear connection with an original and, together with all intervening references to that original, is an attempt to unify some aspect or aspects of the past with life in the

present. In doing so, it seeks to counteract the passage of time. While this may seem to be a quest for timelessness, it is not an activity without time or outside the passage of time, it is an active engagement with time and might more properly be described as the integration of the past with the present.



*13. Chiesa del Santo Sepolcro, Pisa twelfth century. Various medieval interpretations of the Church of the Holy Sepulchre in Jerusalem were intended to bridge the centuries to the time of Christ.*

## **8. Modernism and the Science of Timelessness**

It is unlikely that architects and urban designers who adhere to the principles of Modernism or its offshoots would see their definition of timelessness as bringing the past to life in the present. As the philosopher, Jürgen Habermas, says, 'Modernity can and will no longer borrow

the criteria by which it takes its orientation from the models supplied by another epoch.<sup>77</sup>

Modernist thinking is based on the principle that ‘architects have always been at the cutting edge of technology’,<sup>78</sup> and that ‘science opens up the tools of the future’.<sup>79</sup> We should, therefore, look into recent, associated developments in physics and philosophy that have redefined our understanding of time to understand the idea of timelessness in architecture. Indeed, as we will see, for any discussion of the idea of timelessness to be complete, such an examination must be essential.



14. *Renault Centre, Swindon, England, Norman Foster, 1982. Architecture based on the principle that the latest developments in science and technology should represent the modern era.*

The idea of a constant, universal and measurable time against which to measure all change and movement lies at the foundation of the scientific discipline established by Isaac Newton in the seventeenth century. This concept of time persisted until it was overturned in the early twentieth century by the theory of relativity.

In 1905, Albert Einstein published his theory of special relativity which demonstrated that time was relative to the position, direction and speed of travel of the observer. There was no constant universal time: clocks moved at different speeds according to the relative velocity of different observers; what was seen by the first observer as the present could be seen by a second observer as the past; for a third observer it was the future. Once Einstein had established that, 'There is no audible tick-tock everywhere in the world that can be considered time,'<sup>80</sup> it would lead to the conclusion that, if one person's present is another's past and yet another's future, there is no passage of time in the sense that we understand it. When Einstein consoled the widow of his friend Michele Besso, he wrote: 'People like us, who believe in physics, know that the distinction between past, present, and future is only a stubbornly persistent illusion.'<sup>81</sup>

From this came the idea that there could be only a timeless 'Block Universe',<sup>82</sup> Change would only be the movement from one part of it to another. The physicist, Julian Barbour, developed this into a concept of a universe that only consists of a series of 'Nows' which is 'timeless and created by perfect mathematical rules.' There is no past moment that flows into a future moment. There is only the physics of a static series of 'Nows'. All the different possible configurations of the universe, every possible location of every atom throughout all of creation, exist

simultaneously. According to Barbour, our perception of time is just an illusion as we move from one 'Now' to another. 'People are sure time is there, but they can't get hold of it. My feeling is that they can't get hold of it because it isn't there at all.'<sup>83</sup>

This revolution in the concept of time in physics is paralleled in philosophy. Whether time exists has been a persistent question since Aristotle, who began his discussion on the subject by suggesting that it, 'does not exist at all or barely, and in an obscure way'.<sup>84</sup> But the question of the reality of time came into sharper focus in the twentieth century with 'McTaggart's Paradox'.

In 1908, the Cambridge philosopher, John M. E. McTaggart, identified a logical problem with the description of events in time.<sup>85</sup> Any event would be in the future, then in the present and eventually in the past. But if one is describing an event that *would* be in the future, *is* in the present, and *was* in the past, it cannot be all these things, but it is still the same event. This is a logical contradiction. This description of time, which involves the present, past and future tenses, he called A-series time. There is another way of describing time that avoids the contradiction: when an event is only described as having taken place at a particular time, it never changes as it is always correct that it took place at that time. This description of time he called B-series time. But McTaggart dismissed the B-series as a description of time as it could not change and time involves change. This led him to claim that, 'Nothing is really present, past, or future. Nothing is really earlier or later than anything else or temporally simultaneous with it. Nothing really changes. And nothing is really in time. Whenever we perceive anything in time - which is the only way in which,

in our present experience, we do perceive things - we are perceiving it more or less as it really is not.<sup>86</sup>

The contemporaneity and correspondence of the argument for the unreality of time in physics and philosophy is remarkable as neither relies on the other for support; they are argued entirely within their relative disciplines. This is not, however, the whole story. Time has not disappeared with relativity theory or the Block Universe, it is still an essential aspect of physics.

Einstein, in common with other physicists, sought universal laws or calculations which would work under all circumstances, including a universe where time was relative. As with all scientific proof, these laws or calculations would have to deliver the same results whenever or wherever they were performed. In this sense, by being capable of being applied at all times, they would not be dependent on time. Two plus two would always be four,  $E$  would always equal  $mc^2$ . This remains a common view of what is timeless.

However, Einstein's other theory of relativity, general relativity, led eventually to the idea that there was a moment when there was no time. General relativity established that massive objects in space distort space-time and the passage of light and this now underpins our understanding of the universe. It led others<sup>87</sup> to the discovery that the universe is expanding and the proposal that, if the universe is expanding, it must have done so from a first moment, the singularity, which was followed by the Big Bang. It is supposed that all the laws of the universe, including time itself, came into being at this moment.



The problem of the creation of the universe - if this is indeed the only universe, whether there are other identical universes, or other universes where all the laws of nature differ, and whether we can move from our universe to other supposed universes through wormholes, (theoretical shortcuts through space-time predicted by the mathematics of general relativity) - are all active questions in modern physics. They are, however, incapable of verification and remain theories posed by the extrapolation of mathematical formulae that apply to the existing universe.

This creates a paradox: mathematical calculations, which are presented as the definitive and constant description of reality, eventually point to a condition when this reality, and so the calculations that describe them, no longer pertains.

This has recently been answered by the theoretical physicist, Lee Smolin, and the philosopher, Roberto Ungers. They question the assumption that the mathematics that take us to this paradox are a fundamental truth as, 'no mathematical object is a perfect match for nature. ... the effectiveness of mathematics in physics is limited to what is reasonable,'<sup>88</sup> and assert that time is the only constant in the universe: 'Time is real, and everything that exists, or has ever existed, or will ever exist, takes place in time.'<sup>89</sup>

These are significant issues in modern science and philosophy and they include at least two conditions where it would be possible for modernist architects and urban designers to align a claim of timelessness with current scientific thinking (putting aside the work of Smolin and Ungers). There is, however, little evidence of any such claim. The issue is either too removed from the everyday reality of architecture and urban design, or practitioners are simply unaware of these theories. One critic and

designer, Charles Jencks, has tried to relate architecture to the latest developments in cosmology but admits that, 'Translating this story into architecture presents some problems' and must rely on 'interpretative metaphor'.<sup>90</sup> He makes no mention of timelessness or the unreality of time and, indeed, it is hard to see how timelessness could be represented metaphorically.

When modernists claim timelessness in their work it is not based on any substantial evidence or theory. Any such claims are essentially the same as Christopher Alexander's timelessness, which translates as the more prosaic 'relatively long-lasting', and has the same implied, but empty, hint of something more fundamental.

## 9. Presentism and Modernity

The Block Universe and McTaggart's Paradox, where time is reduced to Julian Barbour's 'Nows', are part of the philosophical and artistic outlook that comes under the name of 'Presentism'. This does have its counterpart in modernist architecture.

Presentism, or the idea that only the present is relevant or real, has a long history. In the fourth century, St Augustine made the observation that, 'Perhaps it might be said rightly that there are three times: a time present of things past; a time present of things present; and a time present of things future.'<sup>91</sup> This has been repeated many times and in many forms since. One version makes all history solely a function of present interpretation, as the modernist philosopher, Walter Benjamin, said: 'For every image of the past that is not recognised by the present as one of its own concerns threatens to disappear irretrievably.'<sup>92</sup>

This was described by the British historian, Herbert Butterfield, in 1931 as the 'Whig Interpretation of History,' which will, 'emphasize certain principles of progress in the past ... to produce a story which is the ratification if not the glorification of the present.'<sup>93</sup> It is a common feature of modernist architectural history and began with Nikolaus Pevsner's seminal *Pioneers of the Modern Movement* in 1936,<sup>94</sup> where he joins architects such as C. F. A. Voysey in an historical process that he presents as the path that will lead to Modernism, whereas Voysey himself denied any such association.<sup>95</sup> This view of the early twentieth century has distorted all architectural history of the period, such that a minority phenomenon becomes the majority of historical study.

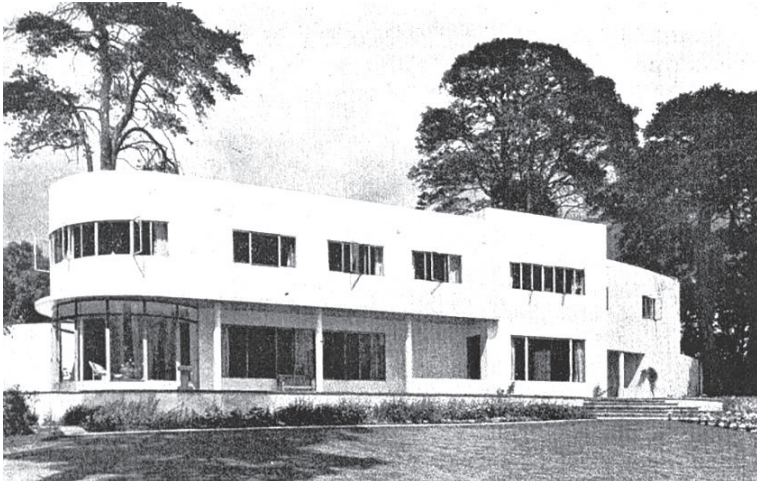
At times, statements proposing Presentism in architecture and the arts seem to come close to those of the philosophers and physicists. When Picasso said in 1923, 'there is no past or future in art. If a work of art cannot live in the present it must not be considered at all';<sup>96</sup> when in the same year the pioneering modernist architect, Mies van der Rohe, said, 'Not yesterday, not tomorrow, only today can be given form';<sup>97</sup> or when the Post-Modern architect, Peter Eisenman, said in 1984, 'Architecture in the present is seen as a process of inventing an artificial past and a futureless present',<sup>98</sup> there are echoes of McTaggart and Barbour. These are not, however, claims for timelessness. There is no claim that the past and future do not exist, but just that they should be ignored, which is not the same thing as the physicists' or philosophers' version of Presentism. They are statements about the significance of present time as against, in particular, the past. They are statements about modernity.



"MOORCRAG," WINDERMERE

C. F. A. VOYSEY, ARCHITECT

15. Moorcrag, Windermere, Cumbria, England, C.F.A Voysey, 1899.



16. Cherrylands, Wentworth, England, Oliver Hill, 1935.

Claims that early Modernism was a development of the work of Arts and Crafts architects were vigorously denied.

## 10. From Timeless to Time

The role of time in the universe remains unresolved. But architecture, only ever the product of humanity, a minute part of the history of one planet, itself only a minute part of the history of the universe, cannot claim anything more than the timespan of the history of mankind, and probably very much less. Human perception, the only means of understanding architecture, is a product only of humanity and is intimately tied to the passage of time. Without recourse to metaphysics, there is no timeless architecture. Much as all experience takes place in time, so time remains a vital part of how we see, make and use architecture. Before we can discuss the various ways that time interacts with architecture, we need to understand time itself.



17. *Ray and Maria Stata Center, Cambridge, Massachusetts, USA, Peter Eisenman, 2004. Modernist architects often claim that their work is only an expression of the present.*

## Endnotes

- 1 Leon Battista Alberti, *On the Art of Building in Ten Books*, trans. Joseph Rykwert, Neil Leach, Robert Tavenor, MIT press, 1988, Book 1, 10, 25
- 2 Alireza Sagharchi and Lucien Steil (eds.), *Traditional Architecture: Timeless Building for the Twenty-First Century*, New York, Rizzoli International Publications, 2014
- 3 Richard Driehaus and Paul Goldberger (eds.), *Timeless Architecture: A Decade of the Richard H. Driehaus Prize at the University of Notre Dame*, London, Papadakis Dist A C, 2013
- 4 Christopher Alexander, *The Timeless Way of Building (Center for Environmental Structure Series)*, London, Oxford University Press, 1980
- 5 <http://www.archdaily.com/19389/peter-zumthor-pritzker-2009-laureate>
- 6 <http://www.pritzkerprize.com/2012/jury-citation>
- 7 <http://www.pritzkerprize.com/2013/jury-citation>
- 8 <http://aiapgh.org/aia-programs-events/design-pittsburgh-2/online-exhibit-vote-peoples-choice-award/timeless-architecture>
- 9 <http://www.tmlsarc.com>
- 10 <http://timearch.com>
- 11 <http://estudioatemporal.com>
- 12 <http://ascotdesign.com>
- 13 <http://rya.be>
- 14 <http://www.architekt-hornstein.de>
- 15 <http://www.maccreeanorlavington.com/website>
- 16 <http://www.mollwitz.de>
- 17 <http://www.estudiocarbal.com/>
- 18 'We're here to try to push the boundaries', *The Daily Telegraph, Review*, London, September 7<sup>th</sup>, 2019, 13
- 19 Kim Johnson Gross, Jeff Stone, Julie V. Iovine, *Home*, New York, A.A. Knopf, 1993, 43
- 20 <https://www.e-architect.co.uk/articles/white-architecture>
- 21 Darryl Reaney, *The Death of Forever: New Future for Human Consciousness*, London, Souvenir Press, 1995, xxi
- 22 'Building and the Terror of Time', *Perspectia: The Yale Architectural Journal*, 19, New Haven, 1982, 59-69
- 23 C. Levi-Stauss, *Le Cru at le Cuit*, Plon, Paris, 1964, 24
- 24 Kristen Lippincott (ed.), *The Story of Time*, London, Merrell Holberton, 2000, 264-5; Penelope J Corfield; *Time and the Shape of History*, Yale University Press, 2007, 186-7



- 25 Lippincott, op cit, p 27
- 26 Idem, p 94
- 27 Plato, *Timaeus*, 37c-d, *Plato in Twelve Volumes*, Vol. 9 trans. W.R.M. Lamb Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1925.
- 28 Aristotle, *Metaphysics*, Book 12 (Lambda) chapters 6-10
- 29 Daniel 12:2, *The Bible*, New International Version
- 30 John 17:3 Idem
- 31 *Qur'an*, 5:119
- 32 Idem, 2:82
- 33 On The Consecration of the Church of St.-Denis, V  
[http://www.learn.columbia.edu/ma/html/ms/ma\\_ms\\_gloss\\_abbot\\_sugar.htm](http://www.learn.columbia.edu/ma/html/ms/ma_ms_gloss_abbot_sugar.htm)
- 34 Quoted by Leonardo Benevolo, *Architecture of the Renaissance, Vol 1*, trans. J. Landry, London, Routledge, 1973, 140
- 35 Augustus Welby Pugin, *The True Principles of Pointed Architecture*, 1861, Academy Editions facsimile, 1973, footnote, 9-10
- 36 RIBA lecture published in the *Architectural Review*, February 1984
- 37 Piotr Choynowski, 'Change and Eternity', *Sacred Architecture Journal*, 1998
- 38 'Oppian, Halieutica 5. 4', *Oppian, Colluthus, Tryphiodorus. Oppian, Colluthus, and Tryphiodorus* trans. A. W. Mair. Loeb Classical Library, Harvard University Press, 1928
- 39 Genesis 1:12, *The Bible*, New International Version
- 40 Iamblichus of Chalcis, *Life of Pythagoras* (c. 300), as trans. Thomas Taylor, 1818
- 41 Plato, *Phaedrus*, 247-e, *Plato in Twelve Volumes*, Vol. 9 trans. Harold N. Fowler, Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1925
- 42 Plato, *Timaeus*, op cit 53a-56c,
- 43 *Platonic Theology*, Marsillio Ficino; English trans.by Michael J.B. Allen with John Warden; Harvard University Press, 2001, 11
- 44 Idem, 37
- 45 Ralph Cudworth, *Treatise Concerning Eternal and Immutable Morality*, 1731, Book 1, ch iii, para7
- 46 Vitruvius, *Ten Books on Architecture*, Bk3, Ch 1, 1, trans. Ingrid D. Rowland Ingrid D. Rowland, Thomas Noble Howe (eds.), Cambridge, Cambridge University Press, 1999
- 47 Idem, Bk4, Ch2, 6
- 48 Idem, Bk3, Ch1, 4
- 49 On The Consecration of the Church of St.-Denis, V

- [http://www.learn.columbia.edu/ma/htm/ms/ma\\_ms\\_gloss\\_abbot\\_sugar.htm](http://www.learn.columbia.edu/ma/htm/ms/ma_ms_gloss_abbot_sugar.htm)
- 50 St Bonaventura *Itinerarium mentis in Deum Bonaventura*, van Winden, J. C. M. *Itinerarium: De weg die de geest naar God voert. Assen: Van Gorcum 1996, 91-2*
- 51 Vincent of Beauvais 1190-1264, quotes verbatim from Vitruvius in *Speculum Majus*
- 52 Leon Battista Alberti, op cit, Bk 6, 1, 154
- 53 Idem, Bk2, 1, 35
- 54 Idem, Bk9, 5, 304
- 55 Idem, Bk9, 9, 307
- 56 Andrea Palladio, *The Four Books of Architecture*, trans. Isaac Ware, 1738, Dover edition, 1955, Bk1, Ch1, p1
- 57 Idem, Bk4, preface, 79
- 58 'Of Architecture', *Parentalia; or Memoirs of the Family of the Wrens*, comp. by his son Christopher (1750, reprinted 1965), Appendix, 351
- 59 There is evidence that the Fibonacci series was known to the Indian mathematician Virahānka in the seventh century CE, see Subhash Kak, 'The Golden Mean and the Physics of Aesthetics', *Archive of Physics* 0411195, 2004
- 60 Ian Stewart, *Nature's Numbers*, Weidenfeld and Nicholson, 1995, 135-143
- 61 <http://timelesswisdomproject.com/golden-mean/>
- 62 Scott Olsen, *Golden Section: Nature's Greatest Secret*, Glastonbury, Wooden Books, 2006
- 63 <http://www.timelessbydesign.org>
- 64 Le Corbusier, *Le Modulor*, Paris, Éd. L'Architecture d'Aujourd'hui, 1950
- 65 Luca Pacioli, *De Divina Proportione*, Chapter LIV, trans. J. Tennenbaum: 'And by it is these true architects who delight in our mathematical disciplines, imitating the true guide of all builders in the work of Vitruvius. When these principles are not followed, we find the condition of our modern buildings, both religious and profane, crooked and twisted.'
- 66 Adolf Zeising, *A New Theory of the proportions of the human body, developed from a basic morphological law which stayed hitherto unknown, and which permeates the whole nature and art, accompanied by a complete summary of the prevailing systems*, Leipzig, Rudolph Weigel, 1854
- 67 For example:



- [http://www.richardmeier.com/?page\\_id=8642](http://www.richardmeier.com/?page_id=8642),  
<http://www.xrysitomi.gr/en/architects-golden-ratio.asp>
- 68 Roberto Mangabeira Unger and Lee Smolin, *The Singular Universe and the Reality of Time*, Cambridge, Cambridge University Press, 2015, 102
- 69 Christopher Alexander, *The Timeless Way of Building*, Oxford University Press, 1979, 13&17
- 70 Idem, 527-8
- 71 Idem, 188-9
- 72 Mircea Eliade, *Cosmos and History*, New York, Harper Torchbooks, 1959, 35
- 73 Michael Young, *The Metronomic Society*, Thames and Hudson, 1988, 99
- 74 Idem, 81-2
- 75 Eliade, op cit, 76
- 76 Hans-Georg Gadamer, *Truth and Method*, London, Sheed and Ward, 1979, 255-6
- 79 Jürgen Habermas, 'Modernity's Consciousness of Time and its Need for Self-Reassurance', *The Philosophical Discourse of Modernity*, trans. F.G Lawrence Cambridge, MA, MIT Press, 1990, 7
- 80 Norman Foster, *BBC Radio* interview May 4<sup>th</sup> 1999
- 81 Richard Rogers, Frank Russell (ed.), *Architectural Monographs: Richard Rogers + Architects*, London, Academy Editions, 1985, 16
- 82 Albert Einstein 'The Principal Ideas of the Theory of Relativity', 'Die hauptsächlichen Gedanken der Relativitätstheorie' Vol. 6, Doc. 44a, in Vol. 7, 3-7 [2-069] Vol. 6, Doc. 44a. after 1916
- 83 Quoted in Freeman Dyson, *Disturbing the Universe*, New York, Harper and Row, 1979, 193
- 84 The term 'block universe' originated with F.H. Bradley, *Principles of Logic*, London, Oxford University Press, 1883
- 85 John Brockman 'The End of Time: A Talk With Julian Barbour' Edge Foundation,  
<https://www.edge.org/conversation/the-end-of-time>,  
August 15, 1999
- 86 Aristotle, *Physics*, (Book IV, part 10-13)
- 87 J.M.E McTaggart, 'The Unreality of Time', *Mind* 17, 1908, 457-73
- 88 J.M.E McTaggart, 'The Nature of Existence', ii, Chapter 33, *Time*, Cambridge, Cambridge University Press, 1927, 34
- 89 The discovery of the expanding universe was made by the American astronomer Edwin Hubble in 1929

- 90 Robert Mangabeira Unger, Lee Smolin, *The Singular Universe and the Reality of Time*, Cambridge, Cambridge University Press, 2015, 428
- 91 Idem, 162
- 92 Charles Jencks, *The Architecture of the Jumping Universe*, Academy Editions, 1997, 128-9
- 93 St Augustine, *Confessions*, Chapter XX: 26
- 94 Walter Benjamin, *Illuminations*, trans. Harry Zorn, London, Pimlico, 1999, 247
- 95 Herbert Butterfield. *The Whig Interpretation of History*, (1931). New York, AMS P, 1978, 45-6 (preface)
- 96 Nikolaus Pevsner, *Pioneers of the Modern Movement*, London, Faber and Faber, 1936
- 97 See C.F.A. Voysey's letter to the *Architects' Journal*, Vol 81, March 14<sup>th</sup>, 1935, 408: 'It has been more than once stated that and printed that I was in a measure instigator, pioneer or original cause of the modern movement in architecture; in some way responsible for the square box, roofless buildings we now see, unfortunately, not only in our own country. I am sure that those who express those views have no intention of libelling me. I make no claim to anything new. Like many others, I followed some old traditions and avoided others.'
- 98 Interview with Marius de Zayas, translation approved by Picasso. 'Picasso Speaks', *The Arts*, New York, May 1923, 315-326
- 99 Ulrich Conrads, *Programmes and Manifestos of 20<sup>th</sup>-Century Architecture*, trans. Michael Bullock, Lund Humphries, London, 1970, [G, 1923] 74
- 100 *Perspecta: the Yale Architectural Journal*, vol 21, 1984

## II

# RECOGNISING TIME

Time is not something objective. It is neither substance nor accident nor relation, but a subjective condition, necessary owing to the nature of the human mind.

Immanuel Kant, *Inaugural Dissertation of 1770*,  
sec. 3.14<sup>1</sup>

### 1. Time, Space and Architecture

In common with all human endeavour, architects and urban designers work within the passage of time. Indeed, this is so unremarkable that it rarely raises any comment. The detail of time is, nonetheless, an important subject in normal working life: buildings and places take time to construct; the process of designing them takes months and years; professionals usually measure and sell the labour required for design by the hour; the programmes or schedules for design and regulation are usually strictly time-managed; the period required for the construction process and the issue of information is tightly defined; development expenditure is related to the interest on capital up to the time the intended function is achieved; the lifespan of buildings or the long-term cost of maintenance is related to the longevity of materials specified, their time-limited guarantees and construction methods employed. All this is the very stuff of design practice.



*1. Architecture and urban design are, by their nature, slow processes.*

At another level, all design is a product of its moment in history. Notwithstanding the common desire by architects and urban designers to take themselves out of the advancing shadow of taste and declare their work timeless, which we examined in the last chapter, work today will become the work of yesterday and will most likely fall out of fashion until, just possibly many years hence, it survives and might become fashionable again as some kind of emerging heritage.

As young designers tend to cleave to the foremost theories, aesthetics or principles they were taught at the youthful peak of their creative development, they will often as not carry those ideas forward, largely unaltered, in succeeding decades. Ideas and construction move slowly in the built environment. The complexities and capital involved in construction mean that, except in rare cases, it is a decade or more until designers are entrusted with the leadership of

major projects. Additionally, even small projects measure their timespan from inception to completion in years, major construction projects can be measured by the decade, and urban design by numbers of decades. A completed urban design will tend to reflect some of the ideas current thirty or more years previously, even a small project by a young designer is often an expression of ideas emerging ten years previously.

All this work is pushed into a world of people who must see and use it. They will see these buildings and places as new and, by this fact, exciting, agreeable, disturbing or intrusive. They will eventually become ordinary, but at a pace relative to their design, rate of decay, subsequent development and cultural context. The way the same public, owners of buildings or managers use, change their use or undertake maintenance will affect the way buildings and places will change. All of which is in turn affected by the social, political and economic setting and how attitudes to buildings and places change.

No part of the world of architecture and urban design is untouched by the various forms and paces of change that are the markers of time. The routine nature of the passage of time lets its broad and profound impact fall into the background for most designers. Some architects and urban designers do, however, recognise its significance.

The significance of history as the record of time past has always been recognised - as a model, an influence and as something to reject. Histories are so familiar and have such a pedigree that it is not worth repeating or listing them here. Sigfried Giedion in his influential book, *Space, Time and Architecture*, did attempt to transfer history into a discussion of time more generally, but it is in reality no

more than an attempt to turn architectural history into a model for radical modernity through abstraction: 'Today, we consciously examine the past from the point of view of the present to place the present in a wider dimension of time, so that it can still be enriched by those aspects of the past that are still vital. This is a matter concerning continuity but not imitation.'<sup>2</sup> This is not, however, the same as seeing the passage of time as a phenomenon of significance beyond history.

At a more fundamental level, the principle that space and time are related seems obvious: space can only be experienced in relation to the time taken to observe or interact with it. This creates a clear link between the creation of space that will be experienced – the key activity of architecture and urban design – and the time in which it will be experienced. Isaac Newton, however, in his *Philosophiae Naturalis Principia Mathematica* of 1687, presented time as a phenomenon which was not in any way subjective, but was a constant against which all other actions could be measured. Although this was challenged soon afterwards by the German philosopher, Gottfried Leibniz, who believed that time and space were both subjective, the scientific effectiveness of Newton's physics made his view of time the accepted position for the next two centuries.

Albert Einstein's Special Theory of Relativity, published in 1905, whereby observation and time were not constant but determined by the situation and physical context of the observer relative to what was observed, forever replaced the Newtonian fixed concept of time with 'space-time'. This new outlook was summarised in the German mathematician, Hermann Minkowski's, much quoted statement of 1908: 'Henceforth space by itself; and time by itself, are doomed

to fade away into mere shadows, and only a kind of union of the two will preserve an independent reality.’<sup>3</sup>

Space-time became a term that appeared to have some scientific veracity and began to be used in architectural theoretical writing but did not, in reality, relate to the physics of Einstein’s theories of relativity. Minkowski is quoted by Giedion, but more as a scholarship signal than the basis for any analysis. In *Modulor* in 1948, the Swiss architect, Le Corbusier, gives a well-considered synopsis of the experiential nature of space experienced through time: ‘Architecture is judged by eyes that see, by the head that turns, and the legs that walk. Architecture is not a synchronic phenomenon but a successive one, made up of pictures adding themselves to one another following each other in time and space, like music.’<sup>4</sup> More recently, the Finnish architect, academic and author, Juhani Pallasmaa, expressed this more comprehensively: ‘we dwell in time as much as in space, and architecture mediates equally our relationship with this mysterious dimension, giving it its human measure. We cannot live in chaos, but we cannot live outside time either.’<sup>5</sup> The Japanese architect, Kengo Kuma, makes the point more lyrically: ‘Creating a link between man, earth and sky, we sought to restore a state where individuals join together inside space time. My dream is built on this.’<sup>6</sup>

## 2. Cosmology, Physics and Time

There can be little doubt of the significance of the consideration of time in architecture and urban design. There must be some value in a better understanding of time in general and how this can be applied in these disciplines, and this will be the subject of the rest of this book. Dealing with time as a physical and perceptual

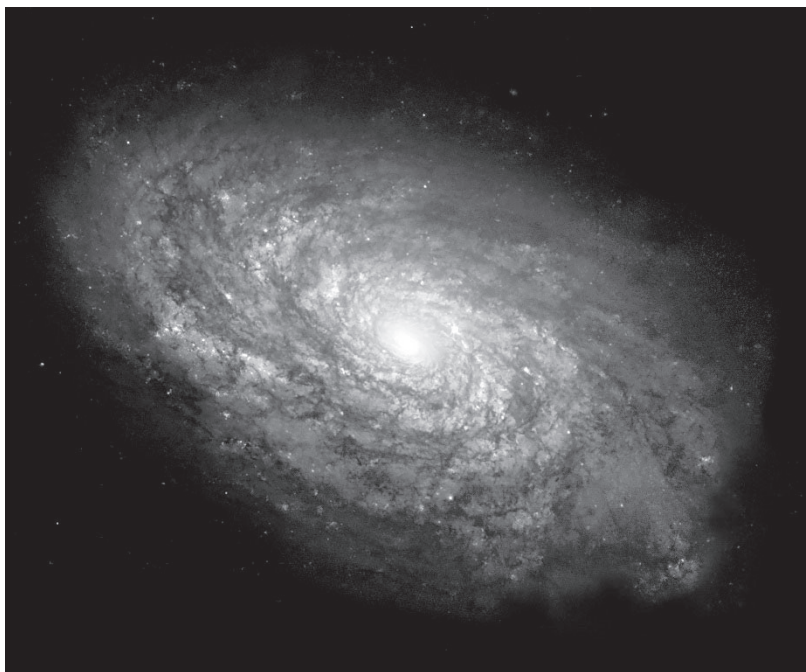
phenomenon is, however, to enter into an extremely complex and far-ranging subject, some of which was explored in the last chapter.

Time as a phenomenon takes us to the origins of the universe and possibly the beginning of time itself. We encounter spatial and chronological realms far beyond our everyday understanding: the diameter of the *observable* universe is estimated at 27.5 billion light years<sup>7</sup> (I will not confuse the issue with the huge figure this delivers when translated into kilometres) and the age of that universe since the Big Bang (its expansion from ‘the singularity’, a theoretical infinite density containing all mass and space-time) is estimated at 13.8 billion years, plus or minus 21 million.<sup>8</sup> According to some physicists, the Big Bang was the beginning of time as we know it. Stephen Hawking tells us that any discussion of time before the Big Bang is pointless, ‘because there is no notion of time available to refer to. The concept of time only exists within our universe’.<sup>9</sup> Others, most notably Lee Smolin from the Perimeter Institute for Theoretical Physics in Ontario, believes that our universe is only one of a cycle of universes and that, ‘time did not begin at the Big Bang but existed before it’,<sup>10</sup> and according to his co-author and philosopher, Roberto Unger, ‘Time ... derives from nothing else and thus ... represents the most fundamental aspect of natural reality.’<sup>11</sup>

There is also a problem with time at the sub-atomic level of quantum physics, where measurement is replaced with probability. In quantum physics, all matter, which is composed of particles (which make up the visible universe), has a counterpart in anti-matter or anti-particles (which cannot be seen but are an essential component in understanding the behaviour of matter and of the mass of



the universe). The laws of physics at this level are the same for particles and their mirror-image counterparts, anti-particles, and, consequently, are reversible in time. Put another way, they are symmetrical which 'means that if you reverse the direction of motion of all particles and anti-particles, the system should go back to what it was at earlier times; in other words, the laws are the same in the forward and backward directions of time'.<sup>12</sup> In 1964, two physicists, Cronin and Fitch, discovered that one type of quantum particle, kaons, do not behave symmetrically with their anti-particle, anti-kaons, so introducing at least the principle of the passage of time, albeit tentatively, into quantum physics.



*2. The universe and physics reveal a scale of time that has no meaning in everyday life.*

There *are* phenomena in cosmology and physics that deliver a clear and positive direction in time, tenses, or the ‘arrow of time’. The Big Bang had in ‘the singularity’ a beginning, and the continuous expansion of the universe has a past, present and future. Concomitant with this is the second law of thermodynamics, entropy, where in a closed system (from an engine to the universe) energy always moves from a differentiated condition – low entropy – to an undifferentiated condition – high entropy. Put hot water in a cold cup where heat is differentiated between water and cup and in time both will have the same temperature because the heat has become equal or undifferentiated; they move from low entropy to high entropy. In this way, in time everything moves from ordered or differentiated states to a less ordered or undifferentiated state. This applies to all energy, albeit in ways that may not be immediately apparent and may seem to be counter-intuitive; creative thought requires (differentiated) calorific energy for the brain and by undertaking that activity, energy is dissipated (loses differentiation) into the universe. Nonetheless, in the sciences the idea of the past, present and future continues to be viewed with suspicion, as the physicist Paul Davies says, ‘The very division of time into past, present and future seems to be physically meaningless’.<sup>13</sup>

With the possible exception of the concept of entropy in its broadest senses, for architecture and urban design all of this physicists’ denial of the passage of time is a dead end. As this study aims to be comprehensive, the above discussion of the physics of time must be included in the interests of completeness. If for no other reason, it also needs to be revealed to deny its applicability as there is a lingering idea in the design professions that their legitimacy lies in an association with the latest scientific thinking. Putting aside the wish for some sort of aesthetic

timelessness, examined in the last chapter, we have to look elsewhere to study time in relation to the design of the buildings and places.

### 3. Time and Experience

Notwithstanding the reservations of physicists about the reality of time, they are often personally uncomfortable with the relationship between human perception and their mathematical conclusions. Rudolph Carnap tells us of Einstein's misgivings: 'He explained that the experience of the Now means something special for man, something essentially different from the past and the future, but that this important difference does not and cannot occur within physics. That this experience cannot be grasped by science seemed to him a matter of painful but inevitable resignation.'<sup>14</sup> Paul Davies says that, 'I find it impossible to relinquish the sensation of a flowing time and a moving present moment. It is something so basic to my experience of the world that I am repelled by the claim that it is only an illusion or misperception.'<sup>15</sup> Any discussion of time in architecture and urban design must look to the human experience rather than the abstractions of the mathematics that underlie the theories of physics. As Smolin says, 'Logic and mathematics capture aspects of nature, but never the whole of nature. There are aspects of the real universe that will never be representable in mathematics.'<sup>16</sup> The danger of following mathematical models that claim the sum of the whole of existence is summarised by the philosopher Raymond Tallis: 'Abstraction continues to the point where the eye that looks round the world is replaced by a summarizing gaze made of purely mathematical relations between variables .... This colourless, odourless, weightless, equation whose instantiations are seen from no angle or distance, is a gaze upon a world exsanguinated of

phenomenal appearance.’<sup>17</sup> This abstraction takes us to timescales, aspects of observation or physical conditions which, while interesting in themselves, have no part in the way buildings and places are designed, respond to the rest of the physical environment at a visible scale, or are experienced. Designers may wish to use these aspects of physics as some kind of abstracted inspiration, but they have no value in advancing or understanding the relevance or quality of buildings or places. Nonetheless, as we have seen, time remains fundamental to all aspects of the built environment and to take account of this in a practical way we need to relate time to how we *experience* the built environment – how we understand our relationship with the phenomena around us and how we perceive these phenomena. The philosophical school of phenomenology offers us this understanding and leads us to the life sciences of sociology, psychology, biology and anthropology.

Phenomenology as a philosophical discipline was established by the German philosopher, Edmund Husserl, in the early twentieth century. He defined phenomenology as ‘the science of pure consciousness,’<sup>18</sup> and said that, ‘The method of phenomenology is to go back to things themselves.’<sup>19</sup> It is the study of the relationship between human understanding and the world of objects in which the human being exists. This seems to be a proper framework within which to study architecture and urban design.

Husserl’s pupil, and possibly the most influential exponent of phenomenology, was Martin Heidegger, who discussed the phenomenology of time in his major work, *Being and Time*, published in 1927. Heidegger centres his philosophy on a concept he calls ‘Dasein’. In German the word means ‘being-there’ or ‘being-in-the-world’, but for Heidegger it had a more extended meaning. It is human existence or the human

condition, 'Dasein is not only close to us – even that which is closest: we are it, each of us, we ourselves'.<sup>20</sup> In Heidegger's notoriously obscure language, 'Dasein has been thrown into existence'<sup>21</sup> – 'thrown' being helplessly cast into the state of affairs that constitutes the world we live in - and 'Being-in-the-world is a basic state of Dasein',<sup>22</sup> where 'Dasein is "in" the world in the sense that it deals with entities encountered within-the-world'.<sup>23</sup> The essential human condition is, then, being in the world and interacting with what is encountered in that world. In phenomenology, we need only to consider this state of affairs as, 'Before there was any Dasein, there was no truth; nor will there be any after Dasein is no more'.<sup>24</sup> This limited framework for 'truth' in the geologically minute timescale of mankind's existence frees us from further consideration of cosmology, miniscule time differential in relative observation and particle physics, and limits any discussion of the human condition and how people understand and experience time in their daily interaction with their surroundings and other people.

According to Heidegger, time is fundamental to human existence: 'All Dasein's behaviour is to be Interpreted in terms of its Being – that is, in terms of temporality',<sup>25</sup> and 'temporality as the primordial structure of Dasein's totality of Being'.<sup>26</sup> He believes that this essential relationship between human existence and time leads us to our understanding of physical space: 'The temporality of Being-in-the-world thus emerges, and it turns out, at the same time, to be the foundation for that spatiality which is specific for Dasein'.<sup>27</sup> The human condition is, then, at its core concerned with both time and space: 'spatiality seems to make up another basic attribute of Dasein corresponding to temporality. Thus with Dasein's spatiality, existential-temporal analysis seems to come to a limit, so that this

entity which we call "Dasein", must be considered as "temporal" and also as spatial coordinately.<sup>28</sup>

There are, then, two fundamental and related aspects of our existence: time and how time is related to our understanding of space. This provides the essential link between time, as a universal aspect of our relationship with the world, and the way we relate to our surroundings - and so, as designers, how our built surroundings are created. This is not abstract time, it is time as our everyday experience and, for Heidegger, 'Everydayness is precisely that Being which is "between" birth and death,'<sup>29</sup>and, 'we mean by the word "everydayness" nothing other than temporality, while temporality is made possible by Dasein's *Being*,'<sup>30</sup> (emphasis in original). The everyday is all that we experience as individuals through our own lifespan (between birth and death) and through that time how we experience space. Architecture and urban design make and change the space we experience; there can be no more fundamental basis for the study of architecture and urban design than time itself.

#### 4. Perceiving Time

In our everyday lives we interact with space and objects through our perception of the world. As space and time are intimately linked in a phenomenological sense, our perception of space and time must also be linked. We only ever experience the world in time and so *how* we perceive time must be an important part of how we perceive space.

By moving from the physics of time to the perception of time, we need to understand how the world is perceived in time.

The foundation of our understanding of time in the world around us has always been based on our appreciation of relatively regular events: night and day; the seasons; moon phases. Our lives, and indeed our survival, have required the anticipation of future events based on the repetition of these phenomena, from the migration of herds to the planting of crops. While they are not entirely regular in a scientific sense, they are regular enough to be named and remain generally functional. One aspect of the advancement of science has been the ever more accurate divisions of these divisions of time into regular and equal intervals, to a level of minutiae well beyond any normal understanding. Our everyday perception of time is, however, quite different from these mathematical divisions. As the American philosopher of physics and metaphysics, Jenann Ismael, reminds us:

The reconciliation of time as conceived in physics with time as encountered in experience is the central problem in the metaphysics of time. A big part of that problem is the reconciliation of time as represented in invariant terms with time as presented to consciousness from different perceptual perspectives.... Time as conceived by physics is one dimension of a four-dimensional manifold of events. ... the parts of time exist together, eternally in a fixed configuration. Time as encountered in experience, by contrast, exhibits a cluster of well-known past/future asymmetries; change and movement are the rule rather than the exception; the world is in the process of becoming, new facts are constantly coming into existence; the past is fixed, but the future remains to be decided.<sup>31</sup>

While our experience may give us a rudimentary form of everyday measurement - what we call 'chronology' - there is another way of understanding how we perceive time as part of our everyday lives. This has been given the name

'chronography' by the Polish philosopher, Krzysztof Pomian.

In the background of the 'time' measured by clocks and of that with which we determine our position using calendars, there is the lived 'time' filled by the succession of events, of changes in the state of our own body or of our environment, perceived through internal or external senses. This 'time' seems to us in some circumstances very intense, hectic, when events jostle with each other; in other circumstances, it seems very slow, monotonous, when nothing or almost nothing happens. These events affect us to a very variable extent and they have different durations. Some are related to events that occurred earlier; others seem to herald those which will arrive later. We therefore distinguish in lived 'time' between a present moment corresponding to events we are actually perceiving, a past composed of events preserved in memory, and a future containing events which await us. And we register events that we wish to preserve in memory in our calendars or private diaries; this is the lowest level of chronography. As a description of events, be they those of an individual's life or the life of a collectivity, chronography may do without the 'time' of clocks and calendars ... As determined by a succession of events, the 'time' of chronography is neither the same everywhere nor uniform.<sup>32</sup>

While in design practice, as discussed at the start of this chapter, precise divisions of time are important; practice exists only to provide built form to interact with people and such interaction can only take place through people's perception of built form. In understanding how people perceive buildings and places in time, and indeed understand space at all, we need to give priority to perceived time over mathematically measured time – to *chronography* over *chronology*. It may be that chronology,



in a broad sense, corresponds to chronography, but chronography will always take precedence. This will be discussed in more detail in the next chapter.

## 5. Perceiving Now

If our appreciation of time is different from 'clock time' or that of physics, how do we perceive time and how do we perceive things in time?

As with all lived time, we operate on the principle that there is a past, a present and a future. We have seen, however, that the reality of this everyday experience is not supported by all physicists, nor is it seen as a simple proposition by philosophers. The dilemma was summed up by St Augustine as early as the end of the fourth century, which can be quoted here in full (a part was quoted in Chapter I):

... it is not properly said that there are three times, past, present, and future. Perhaps it might be said rightly that there are three times: a time present of things past; a time present of things present; and a time present of things future. ... The time present of things past is memory; the time present of things present is direct experience; the time present of things future is expectation.<sup>33</sup>

While we acknowledge the passage of time, our perception of the world always takes place in the present, however, to quote Augustine again, 'time present has no length, since it passes away in a moment.'<sup>34</sup> As this present perception moves forward as an infinitesimal moment between the past and future, it can only be made up of our memories of the past and how we speculate a future based on these memories. The French philosopher, Henri Bergson, expressed this metaphorically, '*Practically, we perceive only the past,*

the pure present being the invisible progress of the past gnawing into the future.’<sup>35</sup> (emphasis in original).

These memories of the past are not recalled chronologically, but in accordance with experience of time that, as quoted above, Pomian calls ‘chronographic’. The mental process behind this is described by the experimental psychologist, Daniel Schacter: ‘we do not record our experiences the way a camera records them. Our memories work differently. We extract key elements from our experiences and store them. We then recreate or reconstruct our experiences rather than retrieve copies of them. Sometimes, in the process of reconstructing, we add on feelings, beliefs, or even knowledge we obtained after the experience. In other words, we bias our memories of the past by attributing to them emotions or knowledge we acquired after the event.’<sup>36</sup> It is this process of recall that we bring to our perception of the world, to quote Bergson again, ‘there is no perception which is not full of memories. With the immediate and present data of our senses, we mingle a thousand details out of our past experience.’<sup>37</sup>

From this we can see that our perception of things takes place only in the present moment. That perception of things does not impinge upon an empty mind, it is an experience that progressively adds to the experiences of the past that have become memory. It is through that memory or these memories that sense is made of what we perceive. That memory is not an historical document, it is a jumble of all that we choose to recall as a part of the experience of perception. It will include recent memories, not so recent memories and distant memories, all brought together by consciousness at that moment. Nothing we see is history, all that we see is the present through the lens of the past: nothing is irrelevant, all is contemporary, all is now. As the film director Federico

Fellini put it, 'We are constructed in memory; we are simultaneously childhood, adolescence, old and maturity.'<sup>38</sup>

The confusion of memory and history can lead us to claim that when we recognise something from the past what we recognise is, in fact, the past and so has no place in the present. This is, of course, logically impossible but, more than this, it is a denial of the way we perceive what we experience. The present-ness of memory as a contrast to the analytic objectives of history is confirmed by the American historian and critic of historical method, Peter Novick: 'while history focuses on the historicity of past events, memory, by contrast, is seen as not having a sense of the passage of time; it denies the "pastness" of its objects and insists on their continuing presence.'<sup>39</sup> The consequences of the primacy of memory in our perception of the world will be discussed in more detail in Chapter V.

These are matters of great significance in architecture and urban design as their practice should be concerned *only* with how those who must live with what is designed will experience and perceive it. Although, as we have seen, all perception can only be through the experience of the past, many designers believe that, to quote L. P. Hartley's famous maxim, 'the past is a foreign country, they do things differently there,'<sup>40</sup> that is, a series of distinct places of diminishing relevance to a present that *must* be given its own unique character. These are followers of 'historicism', a philosophical view of history established by the German philosophers, Georg Hegel and Friedrich Schlegel, in the early nineteenth century, which stressed the particularity of historical context (not to be confused with the other meaning of 'historicism' as the emulation of the past). They first coined the idea of a unique *Zeitgeist*, or spirit of the age, with Hegel saying, 'no man can surpass his own time, for the spirit of his

time is also his own spirit'.<sup>41</sup> The Italian literary critic, Renato Poggioli, provides a definition: 'historicism means not only an enlarging and deepening of the historical vision of the world, or the capacity for comprehending the infinite metamorphoses of the *Zeitgeist*, but also an idolizing of history, the history not only of the past, but of the present and future, made into a divinity.'<sup>42</sup> This places history in an orderly chronology where the near past is more relevant than the more distant past, where certain phenomena and actions belong together in a specifically determined temporal location and, if they stray out of their allocated chronological place, they betray Marx's 'great law of motion of history'.<sup>43</sup>

History is always a theory about the relevance of phenomena and actions to a particular time. Confidence in the historicist categorisation of past events can lead from the pre-eminent eighteenth-century German philosopher, Immanuel Kant's, belief that, 'the history of mankind viewed as a whole, can be regarded as the realisation of a hidden plan of nature',<sup>44</sup> to, at its extremes, the propositions such as that of the nineteenth century American historian, Henry Adams, to 'fix with mathematical certainty the path which human society has *got* to follow',<sup>45</sup> (my emphasis). These certainties of historical categorisation, however, confuse history with experience and are often an uncomfortable partner with the way that, even those who try to apply historical theory to their own actions, perceive the world as they find it.

Most designers who adhere to the idea of a historicist categorisation of the past, themselves recognise and follow some selective association with the past, for example cleaving to the ideas of early twentieth century Modernism while overlooking more prevalent subsequent traditional design. However, much they would wish it otherwise, these designers share with the public (for whom their work is

intended) a process whereby all that is remembered will be equal in its present recollection, and so will be relevant to the present moment. The memory that is conjured up in the moment of perception is that of a particular and personal series of memories that are formed out of a miscellany of recollected experiences, combined with prejudices and emotions. This is not at all the same as historicist thinking. In memory, things do not necessarily have allocated historical moments or exclusive association with one another. The French sociologist, Maurice Halbwachs, sums it up: 'we can go up and down the course of time from one recollection to another.'<sup>46</sup>



*3. Street view, Bruges, Belgium. Relationships between things taken from different periods in history are reflections of how everything is present at the same time in memory.*

In the memory, and so in the perception of things - be they buildings, places or objects - everything belongs in the present and is judged by the selective recall of those who engage with them at that moment. For each of us, this present is a relentlessly advancing instant, creating new memories in its train and dragging along a motley, ever-changing collection of remembered and half remembered experiences, ideas and preferences. How these recollections can be organised in a way common to groups will be discussed in Chapter V, but, for now, the unavoidable and complete dependence on the immediate memories of a multi-temporal past for the perception of the world in a forward-moving present should be clear.

The unease of designers at the use of themes and features of the past as phenomena alien to the current moment in history, as well as the insistence that any such themes and features should only appear with their historical contemporaries, are subscribing to an historicist theory of history, *not* the usual process of perception. Many others with an aesthetic interest, their memories coloured by a visual education similarly taught on the basis of historical categories, may share this unease. Adherents to this idea should not be surprised, however, when they come across commonly-found jarring juxtapositions of architectural or urban forms and details from different periods, which seem to deny the unique particularity that is assumed to belong to this (or any other) age, but which are widely experienced and accepted. Indeed, any deliberate juxtaposition of different elements would be a reflection of the complex recollections and associations that people bring to their perception of buildings and places. Such juxtapositions are everyday: playing music composed in the seventeenth century on a mobile phone; wearing a suit that would have been recognisable a hundred years ago while in an

aeroplane that could not have been imagined; traditional dishes heated in a microwave oven. These things have their architectural and urban equivalents: the latest car design outside the new classical house; triple-glazing on the mullioned window; brickwork fixed to a steel frame. These are a common cause for unease in the design professions, but the historical theories that set up this unease will be of no concern to the vast majority of the people who do not share a visual education based on historicist principles of a series of unique and exclusive historical contexts. The historicist education of designers separates them from the perceptual understanding of the generality of the population.



*4. New development in Bruges, Belgium. In places where surroundings have a consistent character the memories of the population will be similarly consistent and disruptive features will be particularly disturbing.*

These recollections and associations are, of course, based on past experience and are by no means random. If someone has lived all their life in a region where customs, forms and appearances have a certain consistency, then the memories that are brought to perception will share this consistency. In such circumstances, incongruities experienced in perception will be those that are outside this reservoir of memory. As all memories are limited by experience, individuals will share these memories with others with similar experiences and, as new things present themselves as they must, the response to these new things will add to memory. It is the latter that we must now address.

## 6. Now and the Future

We may bring all our past experience to the present moment, but the purpose of doing so is to take us into the future. There is no real past here and now, there is only how we navigate the world as we find it and apply our intentions and wishes into the future. As the philosopher, Daniel Dennett, tells us, 'all brains are in essence anticipation machines'<sup>47</sup> and their 'fundamental purpose is to produce the future'.<sup>48</sup> Martin Heidegger, in his own inimitable language, sets the future as the principal phenomenon in our relationship with time, '*the primary phenomenon of primordial and authentic temporality is the future*'<sup>49</sup> (original emphasis).

Anticipation of the future is a fundamental aspect of survival shared by all sentient beings. In human perception we may call this imagining the future, and we do not know if other creatures imagine as we do, but all active life forms must anticipate likely future outcomes in order to live in the world successfully. Memories for the purpose of future action move from the observation of repetition to the calculation of cause and effect.



Much as a pigeon observes and recalls the inactivity of a scarecrow, so humans observe the regularity of the seasons and both species take anticipatory action in accordance with an accumulative calculation based on the repetition of these phenomena: to carry on eating the crops in the belief that it is safe; to planting crops in the belief that the weather will facilitate their growth. Both can be wrong: the scarecrow might be substituted with an armed person; the seasonal climate might fail. But the memory of the repetition of the event over longer periods of time will balance out the occasional anomaly sufficient for a greater chance of survival in the long run.

At a more sophisticated level, memory and intelligence allow us to do more than simply observe that spring follows winter and that most crops planted in the spring grow, whereas ones that are planted in winter do not. We are able to work out that the growth of crops in warm weather is based on a cause and effect relationship with the germination of the seeds. It is the development of this simple cause-and-effect intelligence that takes us eventually to our most advanced sciences and has led to some of the imaginative causal chains behind the origin of many religions. Indeed, the observation of cause and effect - that one event follows another and the second event would not happen if the first did not - is one of the key proofs of the arrow of time. It is also a memory-and-intelligence-based method for both imagining and taking action in the future that has made mankind the dominant world species. As the psychologists, Thomas Suddendorf of the University of Queensland in Australia, and Michael Corballis of the University of Auckland in New Zealand point out, 'foresight has played a major role in human survival, providing us with unparalleled flexibility in adaptive and proactive behavior.'<sup>50</sup>

## 7. Architecture and the Future

While we may use cause and effect to assess the future, it is open to change and our navigation of the world, our intentions and our wishes, all lie in a future we can, to some extent, control. The unpredictability of the future, the challenge of prediction and our ability to modify the outcome - to sometimes great effect - have a powerful attraction and a seductive excitement. In 1872, Friedrich Nietzsche elevated the consideration of the future over the past by claiming that, 'only those who build the future have a right to sit in judgement of the past.'<sup>51</sup> The German philosopher and essayist on modern culture, Walter Benjamin, writing in 1935, believed that, 'Each epoch not only dreams the next, but also, in dreaming, strives towards the moment of awakening.'<sup>52</sup>

In the recent past, this enthusiasm for what was to come led intellectuals and artists to deny any relevance for the past for a vision of the future. This idea dates from the Enlightenment and there are many subsequent architectural examples: Filippo Marinetti's 1909 Futurist Manifesto proclaimed that, 'we want no part of it, the past, we the young and strong Futurists! So let them come, the gay incendiaries with charred fingers!'<sup>53</sup> Russian constructivists told the world in the 1920s that they were 'leaving the past behind as carrion'.<sup>54</sup>

These rejections of the past have to be seen in the light of the technological, social and political upheavals of the nineteenth century and, in particular, the first half of the twentieth century. Today, architects, however radical they may wish to be, usually lay claim to an interest in the past. Norman Foster tells us that, 'you could characterize my approach as deeply respectful of history and also in part inspired by it.'<sup>55</sup> Daniel Libeskind believes that, 'Architecture

that doesn't deal with the history may produce nice things but they are not things that are going to touch our hearts.'<sup>56</sup> But the future is frequently and explicitly claimed as an objective and an inspiration.

Libeskind can also say that his 'architecture has the notion of a future,'<sup>57</sup> and Foster can say that one must 'try to anticipate the future'.<sup>58</sup> They follow a widespread desire amongst architects to explicitly associate their work with the future. One of the best-known firms in Britain was called 'Future Systems'; in Chicago there is the 'Future Firm'; 'FAT - Future Architecture Thinking' is a Lisbon-based architectural firm with an English name and acronym.

Declarations about a future orientation are also common: the US star architect, Richard Meier, declares, 'I believe in the future';<sup>59</sup> the Dutch-American architect, Winka Dubbeldam, likes to 'project things into the future';<sup>60</sup> the Korean architect, Minsuk Cho, founder of the firm Mass Studies, uses it to define the profession, 'For architects, the future is their present. We live a few years earlier than others';<sup>61</sup> the Japanese architect, Sou Fujimoto, quoted in the publicity for his exhibition in London, 'Futures of the Future', says, 'Creating architecture is like planting seeds of the future';<sup>62</sup> the leading Chinese architect, Ma Yansong, in an interview in Britain said, 'When we talk about a city, we need to talk about what the future is.'<sup>63</sup>

However, as the late German architect, Frei Otto, said in an interview, 'what sort of architect doesn't have an appetite for the future? As designers, architects are always dealing with something that isn't there yet.'<sup>64</sup> Although it was probably not his intention in the interview, he highlights how nonsensical it is for any designer to claim an exceptional association with the future. Not only architects,

but all of us can only plan anything with a view to how it will come about in the future. The tautology of these statements is, however, a well-established method of claiming a positive attribute in order to denigrate others by their implied exclusion. In current architectural thinking, this would be any architect who deliberately associates their work with the past; architects that do not set out, as the architect Bernard Tschumi does, 'to reinvent architecture, to discover a new world, a new vocabulary, a new attitude, and new programs.'<sup>65</sup>



5. *Sheraton Huzhou Hot Spring Resort, 2012, MAD Architects. Ma Yansong designs for what he believes 'the future is'.*

This attempt to divide and isolate parts of the design professions according to attitudes to the past and future has its origins in the struggle that emerging Modernism had in traditional societies in the early twentieth century,

which led, as we saw above, into an attempt to deny any relevance of the past. Learning from history is now a common claim by architects but it is often hard to see. It may be expressed with abstractions that are so removed from any representation of their inspiration that they are incomprehensible without a literary explanation. The wish to be dissociated from any *overt* representation of the past, however, remains. Without a wholesale rejection of the past, it has to be more subtly expressed. Future orientation is presented as a break with past, not its denial, as expressed by the German philosopher, Jürgen Habermas, in 1985, 'A present that understands itself from the horizon of the modern age as the actuality of the most recent period has to recapitulate the break brought about with the past as a *continuous renewal*,'<sup>66</sup> (original emphasis).



6. *Therme Vals Graubünden canton, Switzerland, Peter Zumthor, 1996. Zumthor claims an influence from Andrea Palladio but this is abstracted to a level that is not readily comprehensible.*

As a design - or indeed any proposed action - can only be directed to the future, it must be obvious that even in times of the most explicit architectural revivals, such as the Renaissance and Gothic Revival, the buildings and places that were meant to evoke a place in history considered to be more desirable, pure or attractive (an historically common phenomenon to this day), were intended for the future of the contemporary population. Leon Battista Alberti, in his pivotal book of the Italian architectural Renaissance, *On the Art of Building in Ten Books*, presented to the Pope 1450, after analysing, 'advice that our learned ancestors have handed down to us' wished to, 'go on to report things contrived through our own invention ... [and] things we consider to be of future use.'<sup>67</sup> The high-priest of gothic revival, Augustus Welby Pugin, in the last sentence of his influential *The True Principles of Pointed and Christian Architecture* of 1841, said, 'Let then the Beautiful and the True be our watchword for future exertions in the overthrow of modern paltry taste and paganism.'<sup>68</sup> The attempt to claim the impossible, that designers who literally express their lessons from the past were, in fact, designing *for* the past and that those that make the claim have a particular and exclusive access to the future, has brought in its train fallacious claims.

It is common enough, for example, and largely journalistic, to call a design 'futuristic', which in fact only means 'very unusual'. Past and present designs are also frequently described as 'ahead of their time'. Nothing can be reliably judged as ahead of its time, at the time. While we might guess that an unusual form or use of materials might be used in the future, we cannot know this. As the US scientist and author, Brian Hayes, says, 'To assume that the values of our own age embody eternal verities and virtues is foolish and arrogant'; he calls this, 'chronocolonialism, enslaving

future generations to maintain our legacy systems'.<sup>69</sup> To describe something from the past as 'ahead of its time' does not make it any the less a phenomenon particular to the time in which it was produced, it is only to say that the present has learnt from, revived or adopted something from a previous time and this was by no means inevitable.



*7. Sant'Andrea, Mantua. Leon Battista Alberti sought direct inspiration in ancient Rome but his designs were intended for the future.*



## 8. Anticipation and Surprise

The fact that the present is a fleeting moment between a past that cannot be repeated and a future that is yet to happen, remains the salient fact of all things connected with time. As we have noted above, the only way that the all-important future can be divined is with reference to our memories of the past - there is nothing else. The way we address the future with the past must, then, be a matter of some significance. We have already observed that in nature more widely, this is affected by the observation of cause and effect.

Cause and effect go to the heart, not only of how we deal with the future, but our understanding of time itself. D. H. Mellor sees this as the only means by which we can ascertain that time goes in one direction: 'a causal theory of time order, makes the flow of time seem to take us forward into the future rather than back into the past'.<sup>70</sup> The Brazilian philosopher, Roberto Unger, goes one step further, 'What we call the laws of nature are the regular and recurrent form that causal connections take in certain states of nature or for certain periods in the history of the universe. It follows that we do better to think of the laws of nature as deriving from causal connections rather than to see the latter as deriving from the former, as we are accustomed to do'.<sup>71</sup> For Unger, change and causal connection are 'equally fundamental and primitive features of nature'.<sup>72</sup> These causal chains establish both the biological path-dependence of evolution and the algorithms that dominate our digital interconnections.

So it is that from a string of causal connections -  $d$  was preceded by  $c$ , which was preceded by  $b$ , and was preceded by  $a$  - we predict, consciously or unconsciously, that if the same sequence of  $a$  to  $c$  recurs, and in particular occurs more than once,  $d$  is highly likely, or if the causal chain is long



enough and repeated enough times, is certain to happen again. If we *want* something to happen again, we will understand that if we replicate or complete a causal chain, we have previously observed the result will be the same or of the same order. Of course, our actions and predictions will most likely be much more complex than the replication of a single causal chain and may involve the complex interaction of many, with the increased intelligence that this will require and the increased uncertainty that will result. Nonetheless, all action towards the future is, and can only be, based on observation and analysis of the past.

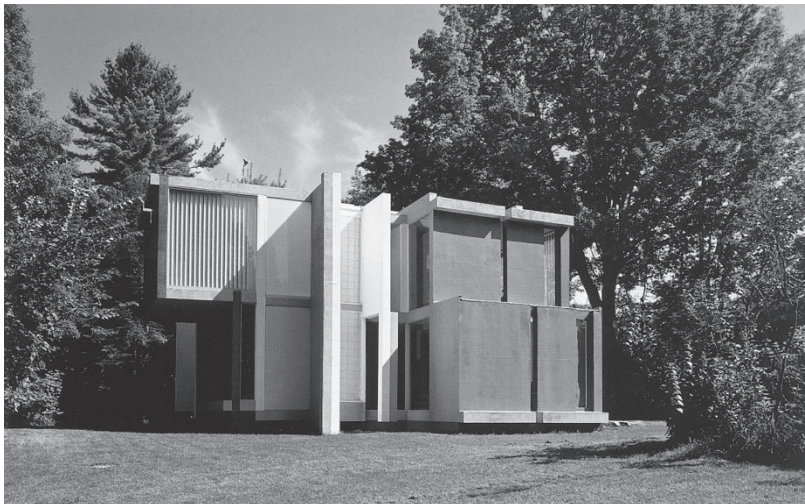


8. Marc Chagall, 'To My Betrothed', 1911. Chagall wanted his paintings to have 'a psychic shock'.

In experiencing as well as activating a causal chain, we are anticipating an outcome in the future. This anticipation also becomes a memory. Memory does not only serve the recollection of the past, it allows us to keep important objectives in mind with the purpose of ensuring that we achieve them. In the late 1970s, the Swedish brain physiologist, David Ingvar, proposed that these memories be retained to check against the future event. This has been tested by asking subjects in an fMRI scanner to imagine future events: 'you see activity in similar systems to those that are activated when they think about the past. In particular, imagining the future leads to activation in the medial temporal lobe (including the hippocampus) and the medial prefrontal cortex, areas that are well established as parts of the core memory system.'<sup>73</sup>

Management of the future, as the present advances towards it, is based on rational, conscious or unconscious, observation of causal chains and this, in turn, becomes an anticipation. The failure of this anticipation will be a shock, a contradiction of the memory that had predicted a different outcome. This does, of course, have a survival function; shock will stimulate enhanced attention and physiological fight-or-flight responses. Shock or surprise is also an artistic device, particularly in modernist artistic theory, used to draw attention to the work of art. Marc Chagall said in 1922, 'I want to introduce into my painting a psychic shock.'<sup>74</sup> The contemporary Chinese artist, Ai Weiwei, says, 'I always want people to be confused, to be shocked.'<sup>75</sup> The same sentiment is repeated in architecture, but in more restrained language. The Iraqi British architect, the late Zaha Hadid, told us, 'I don't want easy answers for everyone. I want to put forward new styles of living.'<sup>76</sup> The US avant garde architect, Peter Eisenman, is not interested in convention: 'It's the otherness, the difference, that matters to me.'<sup>77</sup> The intention is clear,

the artists and designers want to surprise and confound expectation or anticipation.



9. Peter Eisenman, *House VI*, Cornwall, Connecticut, 1975. Eisenman wants his architecture to express 'otherness'

Music is frequently used as a model for explaining the relationship between memory and anticipation, from the German philosopher, psychologist and priest, Franz Brentano, at the end of the nineteenth century,<sup>78</sup> to the French philosopher, Henri Bergson, in 1913,<sup>79</sup> and more recently by the US philosopher, Jenann Ismael.<sup>80</sup> The Irish-American philosopher, Shaun Gallagher, gives a succinct account:

If I am listening to a favourite melody, there is some sense of what is to come, a primal expectation of the notes to follow, and the best indication of this is that if someone hits the wrong note, I am surprised or disappointed. If a person fails to complete a sentence, I experience a sense of incompleteness. This kind of perceptual disappointment is

based on a lack of fulfilment of protention: what happens fails to match my anticipation.<sup>81</sup>

This surprise or disappointment has a limited life. It will become a memory of a past event and will, particularly if repeated, just become one of the parts of a new causal chain. It will henceforth simply be expected, or at least half expected. This too is a survival mechanism, an unexpected event can be dangerous as there is no anticipated response, once expected, corrective action can be taken. But it makes any shock only temporary. A single event, never to be repeated, might remain in the memory as a shock, but this is not the fate of most art; it remains to be seen or experienced again and again. In the case of architecture, it is not only seen, but occupied and used, which makes the formation of a causal chain more urgent and essential. As the US artist, Robert Longo, said, 'An artist should know art history. Shock value only lasts so long.'<sup>82</sup>



10. Denys Lasdun, *The Royal College of Physicians, London, 1964*. *The shock of the novelty that this building created was short-lived and it has now become familiar and it is protected as an historic building.*

Anticipation of the future based, as it must be, on cause and effect unavoidably draws in the past. A new thing may be a surprise in many ways, if only by its newness, and this surprise may be stimulating and pleasurable. Surprise, shock or unpredictability are, however, for anything with any degree of permanence, only temporary and as soon as they are experienced they become a thing of the past and pass into the remembered sequence of cause and effect in preparation for the next time they will be encountered. To make surprise, shock or unpredictability a design objective is futile for anything but the moment.

## 9. Architecture, Science Fiction and the Future

There is one artistic field where the unexpected future is a defining characteristic - science fiction. It is also a literary genre that has many parallels with, and influences on, the last hundred and fifty years of architecture.

Science fiction in the form that we know it, has its origins in the works of Jules Verne and his *Voyages Extraordinaires* at the end of the nineteenth century, together with H. G Wells, his principal works being published some two decades later. Other origins have been claimed for the genre, principally Mary Shelley's *Frankenstein* of 1818, really a Gothic novel with electricity. Verne and Wells relied heavily on imaginative future technical advances and this remained the mainstay, but not the sole subject matter, of science fiction. The genre was established with pulp magazines in the USA in the 1920s and 30s. In 1929, the category was first named 'science fiction' by one of the publishers, Hugo Gernsback, for his new magazine, *Science Wonder Stories*. Previously, these works had come under generic titles such as 'Romance of the Future'.<sup>83</sup> Science fiction books attracted a large audience

after the Second World War and the subject remains popular in literature and film today.

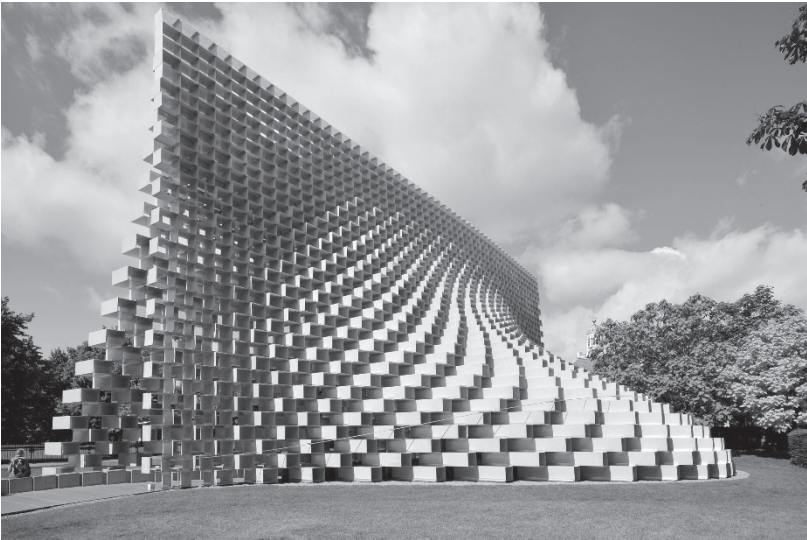
This trajectory runs very close to that of Modernism, with early stirrings in the nineteenth and early twentieth centuries, a specialist interest in the early twentieth century and a major expansion in the post-Second World War period. Modernist architects also share an interest in the future, technology and the utopias that might arise from scientific advance (although much modern science fiction also dwells on dystopias).

Furthermore, the work of contemporary architects is frequently described as, for example, ‘more sci-fi spectacular than skyscraper’ in a headline referring to Beijing’s Leeza Soho,<sup>84</sup> or Richard Rogers’ Pompidou Centre in Paris, labelled as ‘an astonishing sci-fi pile’.<sup>85</sup> Most significantly, architects often not only show an interest in science fiction, but have also been influenced by it. Zaha Hadid’s office say their work is ‘perfectly in line with *Star Wars* pop culture, science fiction, futurist style.’<sup>86</sup> Norman Foster tells us, ‘I’ve always been fascinated by science fiction.’<sup>87</sup> Ma Yansong’s studio, in designing Faraday Future’s headquarters in Northern California, claim that they designed a ‘compelling structure’ by ‘taking into account FF’s ambitious science fictional and mysterious surrealism.’<sup>88</sup> The Danish architect, Bjarke Ingels, uses Philip K. Dick’s definition of science fiction to explain his architecture.<sup>89</sup> The late British star architect, Will Alsop, known for his outlandish designs, wrote a science fiction novel for his final year project at the Architectural Association.

The science fiction literary genre has now been accepted as something more than low popular culture and has been the subject of academic analysis. The Croatian-American academic, Darko Suvin, pioneered science fiction studies and defined the genre in 1979 as extending, ‘from the



ideal extreme of exact recreation of the author's empirical environment to exclusive interest in a strange newness, a *novum*,<sup>90</sup> as well as having the quality of 'estrangement' or 'alienation', a concept he derived from the modernist playwright, Bertold Brecht, as *verfremdungseffekt*: 'A representation which ... allows us to recognize its subject, but at the same time makes it seem unfamiliar.'<sup>91</sup> This was repeated, knowingly or unknowingly, by the important science fiction author, P. K. Dick, (see Bjarke Ingels above) in 1981. For him, science fiction depicts, 'society that does not in fact exist, but is predicated on our known society; ... This world must differ from the given in at least one way, and this one way must be sufficient to give rise to events that could not occur in our society,' and there should be, 'a convulsive shock in the reader's mind, *the shock of dysrecognition*.'<sup>92</sup> (emphasis in original).



11. Bjarke Ingels, *Serpentine Pavilion*, London, 2016. Ingels sees his own work in the context of science fiction.

Taking note of P. K. Dick's science-fiction society, 'that is predicated on our own known society', it is generally recognised by commentators, such as the British author and academic, Adam Roberts, that, 'SF does not project us into the future; it relates to us stories about our present, and more importantly about the past that has led to this present.'<sup>93</sup> This is repeated by Reading University Professor of Literature, the late Simon Dentith, offering, 'a relatively straightforward but important formal point; the imaginary place can only be imagined by reference to the actual, even if this is only in inverted form,'<sup>94</sup> and is repeated in more academic language by the British Australian Professor of English and Comparative Literature, Andrew Milner, when describing 'marvellous tales' in science fiction that are, 'only ever rendered plausible, nonetheless, by the resonant.'<sup>95</sup>

This unavoidable basis in the present for projections of the future is graphically evident in past illustrations of the future of science fiction, which are instantly recognisable as a version of their own time. This is repeated in descriptions of the future, here of a shop in a future socialist utopia in the year 2000, by American author, Edward Bellamy, highly influential following the publication of his *Looking Backward, 2000-1887* at the end of the nineteenth-century:

There was no display of goods in the great windows, nor any devices to advertise wares or attract custom. Nor was there any sort of sign or legend on the front of the building to indicate the character of the business carried on there; but instead, above the portal, standing out from the front of the building, a majestic life-size group of statuary, the central figure of which was a female ideal of Plenty, with her cornucopia.<sup>96</sup>





12. H. G. Wells, *Time Machine* illustration, 1927. Images in science fiction betray their date of origin.

From this, the value of examining attitudes of architects to the future through science fiction becomes clear. The *novum*, or new thing, will be recognised from Bernard

Tschumi's quoted, 'a new vocabulary, a new attitude, and new programs.' Estrangement will be familiar from Peter Eisenman's quoted interest in 'the otherness, the difference', or from Zaha Hadid's quoted statement that she does not 'want easy answers for everyone'. We can use science fiction as a metaphor for Winka Dubbeldam's wish, quoted above, for her architecture to 'project things into the future', but even in the genre defined by its projections of the future, there is only the present, which, as we have seen, can only be the past. As Professor Penelope Corfield, of Royal Holloway College in the UK, says, 'all ... future projections are launched, however imaginatively, from the ever-changing present, which incorporates so much from the past. The history of futurology, then, is part of history — and thus part of the historic resources available for understanding the art of living in time.'<sup>97</sup>

## 10. The Future becomes the Past

Although in the present instance we can only have access to the past, the fact is that not only must we predict the future in order to survive, but that future will not be the same as the present moment or the past: things must and will change by circumstance, evolution or invention.

As things change and the expected and unexpected take place, they will, as we have seen, very quickly become the past. For a time, they will be categorised as new things in our memories and, at a variable timescale of immediate to months, become categorised as past things. At any time, these new memories will be added to all other memories from the more or less recent past.

This can be expressed diagrammatically. We can use Suvin's Latin term for all new things, the *novum*, or *nova* in

the Latin plural, and express these on a time-calibrated bar chart alongside all past things that remain relevant at any one time. The past things, as shown, are not continuous. Some things from the recent, less recent and more distant past cease to become relevant or called-upon memories and so will drop out of the bar. This is not a continuous process; the past does not disappear solely because of remoteness. Some historic events continue to remain relevant, long past wars have determined present boundaries and revolutions have created political systems; some recent events become insignificant, clothing fashions are quickly (and gratefully) dismissed and social events are often soon passed over by the importance of the next ones. Nevertheless, greater remoteness does tend to lead to the increasing irrelevance of memories. All this can be expressed as a series of bars, each one representing a new era. As this is only a conceptual diagram, there is no necessary time bracket for each era, it could be a month, a year or a decade; the principle will still apply, only the relative significance of the events will be greater or lesser. The nova are also shown as variable; some eras change less than others. The key points to notice are the passage of the new into the familiar and the fact that the new, at any one time, will be by far the smallest thing in the generality of memory. We should not be deceived by novelty into thinking it is the most important thing in any one era, or that, as the Hegelian historicists think, new things, or nova, are the definitive phenomena of any historic period. For anyone at any period, unless suffering from mental amnesia or in a moment of absolute social upheaval and destruction (not a situation any of us but the most radical revolutionaries would wish), the greater past is always much more significant than the recent past.



13. As time passes, each new thing becomes an old thing and in memory there are always many more old things than new things.

Nonetheless, things will change or there will be no time. As the diagram indicates, this change is not an even process according to a scientifically graduated calendar and this change will be the subject of the next chapter.

## Endnotes

- 1 Immanuel Kant, *Inaugural Dissertation of 1770*, trans. William J. Eckoff, 1894, [https://en.wikisource.org/wiki/Kant%27s\\_Inaugural\\_Dissertation\\_of\\_1770](https://en.wikisource.org/wiki/Kant%27s_Inaugural_Dissertation_of_1770)
- 2 Sigfried Gieddon, *Space, Time and Architecture: the growth of a new tradition*, Harvard University Press, 1967 (original edn. 1941), 7
- 3 Hermann Minkowski, 'Space and Time' in Hendrik A. Lorentz, Albert Einstein, Hermann Minkowski, and Hermann Weyl, *The Principle of Relativity: A Collection of Original Memoirs on the Special and General Theory of Relativity*, New York, Dover, 1952, 75
- 4 Le Corbusier, *The Modulor*, Basel, Birkhäuser, 2000, 73
- 5 Juhani Pallasmaa, 'Inhabiting Time', Karen. A. Franck (ed.) *Architecture Timed: designing with time in mind*, *Architectural Design*, London, 01, Vol 86, 2016, 52
- 6 Kengo Kuma, 'Architecture and Time', Isabelle Marchal et al (eds.), *Architecture et Temps*, Frac Franche-Comte, 2012, 286
- 7 The 'known' universe is 93 billion light years in diameter and expanding.
- 8 Calculated by NASA's Wilkinson Microwave Anisotropy Probe in 2012 from the cosmic microwave background.

- 9 Stephen Hawking, *Brief Answers to the Big Questions*, New York, Bantam Books, 2018, 46
- 10 Lee Smolin, *Time Reborn*, London, Allen Lane, 2013, 238
- 11 Roberto Mangabeira Unger and Lee Smolin, *The Singular Universe and the Reality of Time*, Cambridge, Cambridge University Press, 2015, 104
- 12 Stephen Hawking, *A Brief History of Time*, London, Bantam Press, 2011 (1988), 87-9
- 13 Paul Davies, *About Time, Einstein's Unfinished Revolution*, London, Penguin, Schuster, 1995, 71
- 14 Rudolf Carnap, 'Intellectual Autobiography', in P.A. Schilpp (ed.), *The Philosophy of Rudolph Carnap* La Salle, Illinois, Open Court, 1963, 37-8
- 15 Paul Davies, op cit, 275 Lee Smolin, *Time Reborn*, London, Allen Lane, 2013, 246
- 16 Raymond Tallis, *Of Time and Lamentation: reflections on transience*, Newcastle upon Tyne, Agenda Publishing, 2017, 116-7
- 17 Edmund Husserl, *Introduction to Logic and Theory of Knowledge*, trans. O.C. Hill, Dordrecht, Springer, 2008, [1906-7] 213
- 18 Edmund Husserl, *Logical Investigations*, Ed. Dermot Moran (ed), 2nd ed. 2 vols, London, Routledge, 2001 [1900/1901], 168
- 19 Martin Heidegger, *Being and Time*, trans. John Macquarrie and Edward Robinson, Hoboken, New Jersey, Blackwell Publishing, 1962 [1926], 35
- 20 Idem, 321
- 21 Idem, 86
- 22 Idem, 138
- 23 Idem, 269-270
- 24 Idem, 456-7
- 25 Idem, 486
- 26 Idem, 384
- 27 Idem, 418
- 28 Idem, 276
- 29 Idem, 423
- 30 Jenann Ismael, 'Temporal Experience', in Craig Callender (ed.), *The Oxford Handbook of Philosophy of Time*, Oxford, Oxford University Press, 2011, 480
- 31 Krzysztof Pomian, 'On Time', in *Transit*, Vienna, Institut für die Wissenschaften vom Menschen, 2013, <https://www.iwm.at/transit-online/on-time/>
- 32 St Augustine, *Confessions*, trans. R. S. Pine-Coffin, London, Penguin Books, 1962, 269

- 33 Idem, 266
- 34 Henri Bergson, *Matter and Memory*, trans. Nancy M. Paul and W. Scott Palmer, New York, Zone Books, 1991, 150
- 35 Quoted in, Charles Fernyhough, *Pieces of Light: The New Science of Memory*, London, Profile Books, 2012, 8
- 36 Henri Bergson, op cit, 33
- 37 Quoted in, Giles Deleuze, *Cinema II*, London, Athlone Press, 1989, 104
- 38 Peter Novick, *The Holocaust in American Life*, Boston, Houghton Mifflin, 1999, 3-4
- 39 Leslie Poles Hartley, *The Go-Between*, London, Hamish Hamilton, 1971 (1953), 1
- 40 Glen Alexander Magee, *The Hegel Dictionary*, London, Bloomsbury, 2011, 262
- 41 Renato Poggoli, *The Theory of the Avant-Garde*, Cambridge, Massachusetts, Harvard University Press, 1968 (1962), 66-7
- 42 Friedrich Engels, 'Preface', *Eighteenth Brumaire of Louis Bonaparte*, trans. Saul K. Padover, Moscow, Progress Publishers, 1937 (1885), on-line, <https://www.marxists.org/archive/marx/works/1885/prefaces/18th-brumaire.htm>
- 43 Immanuel Kant, *Principles of Politics, including his essay on Perpetual Peace. A Contribution to Political Science*, trans. W. Hastie, Edinburgh: T and T Clark, 1891), 21
- 44 Henry Adams, 'The Tendency of History', *Annual Report of the American Historical Association*, 1894, 20
- 45 Lewis A. Coser, (ed.) and trans., *Maurice Halbwachs on Collective Identity*, Chicago, University of Chicago Press, 1992, 182
- 46 Daniel C. Dennett, *Consciousness Explained*, Boston, Massachusetts, Little, Brown and Co, 1991, 188
- 47 Idem, 177
- 48 Martin Heidegger, op cit, 378
- 49 Thomas Suddendorf and Michael Corballis, 'The evolution of foresight: What is mental time travel, and is it unique to humans? Discussion', *Behavioural and Brain Sciences*, Cambridge University Press, 2007 Jun;30(3), 344
- 50 Friedrich Nietzsche, 'Unfashionable Observations', 1872, quoted in Paul Ricoeur, *Memory, History, Forgetting*, trans. Kathleen Blamey and David Pellauer, Chicago, University of Chicago Press, 2004, 291



- 51 Walter Benjamin, *Reflections: essays, aphorisms, autobiographical writings*, trans. Edmund Jephcott, New York, Schocken, 1986, 162
- 52 [http://www.ubu.com/papers/marinetti\\_futurist-manifesto.html](http://www.ubu.com/papers/marinetti_futurist-manifesto.html)
- 53 Manfredo Tafuri, *Theories and Histories of Architecture*, trans. Giorgio Verrecchia, New York, Harper and Row, 1980, 39
- 54 Max Tholl, 'Architecture is the Expression of Values', *The European*, 31 October, 2014
- 55 'Daniel Libeskind, Building The Unbuildable', *52 Insights*, 29th/Sep/2016, <https://www.52-insights.com/daniel-libeskind-building-the-unbuildable-interview-architecture/>
- 56 Daniel Libeskind, 'We Mustn't Forget the Emotional Impact of Buildings', *CNN* 20th July 2017, <https://edition.cnn.com/style/article/daniel-libeskind-architecture-emotions/index.html>
- 57 William Hanley, 'Seeing the Future: Why Norman Foster is the Perfect Architect for Apple and Bloomberg', *Surface*, October 30, 2017, <https://www.surfacemag.com/articles/architecture-norman-foster-foundation-bloomberg-apple/>
- 58 Vladimir Belogolovsky, *Conversations with Architects in an Age of Celebrity*, Berlin, DOM Publishers, 2015, 352
- 59 Idem, 198
- 60 'Mass Studies', UK, *Vice News*, Video, 05 June 2012. [https://www.vice.com/en\\_uk/article/5357yb/mass-studies-5899ce1670caae4f186fc1a6](https://www.vice.com/en_uk/article/5357yb/mass-studies-5899ce1670caae4f186fc1a6)
- 61 'Sou Fujimoto: Futures of the Future', Exhibition, London, Japan House, 22 June – 05 August 2018, <https://www.japanhouselondon.uk/whats-on/2018/sou-fujimoto-futures-of-the-future/>
- 62 Benedict Hobson, 'Ma Yansong: "Architects need to talk about what the future is"', Video, 1 August 2017 *Dezeen*, <https://www.dezeen.com/2017/08/01/ma-yansong-video-interview-ribe-international-conference-architects-visionary-future-ideas-movie/>
- 63 Hanno Rauterberg, *Talking Architecture: Interviews with Architects*, Munich, Prestel, 2008, 135
- 64 Vladimir Belogolovsky, op cit, 492
- 65 Jürgen Habermas, *The Philosophical Discourse of Modernity*, trans. Frederick Lawrence, Polity Press, 1987 [1985], 7

- 66 Neil Leach and Robert Tavernor, *On the Art of Building in Ten Books*, Cambridge, Massachusetts, MIT Press, 1991, 7
- 67 A. W. Pugin, *The True Principles of Pointed and Christian Architecture*, London, Academy Editions, 1973, (reprint of first edn. 1841), 76
- 68 Brian Hayes, 'Clock of Ages', *Scientific American*, Nov/Dec, 1999, 13
- 69 D.H. Mellor, *Real Time II*, London, Routledge, 1998, 123
- 70 Roberto Mangabeira Unger and Lee Smolin, op cit, 281
- 71 Idem, 243
- 72 Charles Fernyhough, *Pieces of Light: The New Science of Memory*, London, Profile Books, 2012, 146-7
- 73 Quoted in, Ingo F. Walther and Rainer Metzger, *Chagall*, Cologne, Taschen, 2000, 70
- 74 Jed Perl, 'Noble and Ignoble. Ai Weiwei: Wonderful dissident, terrible artist', *New Republic*, February 1, 2013, <https://newrepublic.com/article/112218/ai-wei-wei-wonderful-dissident-terrible-artist>
- 75 Hanno Rauterberg, op cit, 79
- 76 Idem, 37
- 77 Franz Brentano, Descriptive Psychology Research Programme, three lectures Vienna period, 1887-91
- 78 Henri Bergson, *Time and Free Will*, trans. F.L Pogson, London, George Allen and Co. 1913
- 79 Jenann Ismael, 'Temporal Experience', in Craig Callender (ed.), *The Oxford Handbook of Philosophy of Time*, Oxford, Oxford University Press, 2011
- 80 Shaun Gallagher, 'Time in Action', in Idem, 423
- 81 Robert Longo, widely quoted but original source unknown
- 82 Edward James, 'Science Fiction by Gaslight: An Introduction to English-Language Science Fiction in the Nineteenth Century,' in David Seed (ed.), *Anticipations: essays on early science fiction and its precursors*, Liverpool, Liverpool University Press, 1995, 28-9
- 83 Eleanor Peake, 'Beijing's Leeza Soho is more sci-fi spectacular than skyscraper', *Wired*, 26 November 2017, <https://www.wired.co.uk/article/a-building-with-a-twist>
- 84 Edwin Heathcote, 'In the Spotlight: Richard Rogers - Articulate defender of the city', *Financial Times*, June 1, 2007
- 85 Jenna Milliner-Waddell, 'Zaha Hadid Design Released A Table Inspired By Princess Leia's Buns: The "Star Wars" icon just got a nod from the design world', *Elle Décor*, June 20 2017,



- <https://www.elledecor.com/shopping/furniture/a10197327/zah-a-hadid-design-princess-leia/>
- 86 William Hanley, op cit
- 87 Dan Howarth, 'MAD unveils "extraterrestrial" campus for electric car brand Faraday Future', *Dezeen*, 18 July 2017, <https://www.dezeen.com/2017/07/18/mad-architects-extraterrestrial-campus-electric-cars-faraday-future-california/>
- 88 <https://www.youtube.com/watch?v=yKaG-XuCo9A>
- 89 Darko Suvin, *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre*, New Haven, Connecticut, Yale University Press, 1979, 4
- 90 Bertolt Brecht, 1949. 'A Short Organum for the Theatre', *Brecht on Theatre: The Development of an Aesthetic*, trans. John Willett (ed.), London, Methuen, 1964, 179–205. para 42
- 91 From a letter by Philip K. Dick, used as the preface to *The Collected Stories of Philip K. Dick, Vol. 1*. San Francisco, Underwood-Miller, 1987, 9-10
- 92 Adam Roberts, *Science Fiction*, London, Routledge, 2006, 28
- 93 Simon Dentith: 'Imagination and Inversion in Nineteenth-Century Utopian Writing', in David Seed, op cit, 150
- 94 Andrew Milner, *Locating Science Fiction*, Liverpool, Liverpool University Press, 2012, 20
- 95 Edward Bellamy, *Looking Backward, 2000-1887*, Chicago, Dover, 1996, 49
- 96 Penelope J Corfield, *Time and the Shape of History*, Yale University Press, 2007, 194

### III

## HOW THINGS CHANGE

My great problem, the only problem I had to resolve, was to show that time moves at different speeds.

Fernand Braudel, 1977<sup>1</sup>

### 1. Everything Changes

Architects and urban designers are primarily concerned with change. Any creative act alters something. Even the most ardent apostles of maintaining the *status quo* should do so in the knowledge that positive action is required to hold back events. As Tancredi says in Giuseppe Lampedusa's *Il Gattopardo*, 'If we want things to stay as they are, things will have to change.'<sup>2</sup> The most significant change that could be made would be no change.

This is, however, impossible. Everything changes in time. There would be no time without change. If everything remained the same, there could be no perception of time. Perception of the world can only be by a living creature and all living things are passing from birth to death. Even if nothing seems to change in the world, the creature moves closer to death, so the creature and the creature's perception have moved on.

This relationship between time and change is acknowledged from the ancients to the moderns. In the fourth century BCE, Aristotle said, 'time is either change or some aspect of change; and since it is not change, it must be some

aspect of change.<sup>3</sup> In the twenty-first century CE, the theoretical physicist, Lee Smolin, tells us, ‘Time must be a consequence of change; without alteration in the world, there can be no time.’<sup>4</sup>

As design involves change, designers can fetishize the unavoidable. In making things, the creation of the new is inescapable. There is no need to promote the inevitable. Nonetheless, the excitement of invention and creativity can lead designers to believe that change itself is as important as the consequences of change.



*1. Metropol Parasol, Seville, 2011, Jürgen Mayer. Mayer is ‘looking for architecture that would foresee changes’.*

The German architect, Jürgen Mayer, is, ‘looking for architecture that would foresee changes.’<sup>5</sup> The British-Ghanaian architect, David Adjaye, believes that,

'Architecture ... is about evolving and changing.'<sup>6</sup> Wolf Prix, co-founder of the leading German architects, Coop Himmelb(l)au, wanted, 'the most ... to change architecture,'<sup>7</sup> in 1968 and, forty years later, would 'still ... want to change architecture.'<sup>8</sup> Sotiris Tsoulos, the Dubai Director of the global architects, RMJM, believes that, 'Architecture is the only applied art to change how we perceive the world around us,' and that, 'It is the changing force in society.'<sup>9</sup> In Britain, there is an architectural organisation just called, 'Architects for Change', with a mission to 'change and challenge the way we currently design and build.'<sup>10</sup>

When the late star architect, Zaha Hadid, said, 'Everything changes, the way we work, technology and art. Why should everything stay the same in architecture, of all things?'<sup>11</sup> she unwittingly summarised the reasoning behind the obsession with change. She is correct in saying, 'everything changes', but if everything does indeed change, so does architecture. The wish to promote change for its own sake cannot logically be because architecture does not change, it can only be that it does not seem to change rapidly enough, either because architects simply wish to be different or because they believe, as Hadid implies, that the slow pace of architecture fails to keep up with the pace of change of society more generally.

## 2. How Time Changes

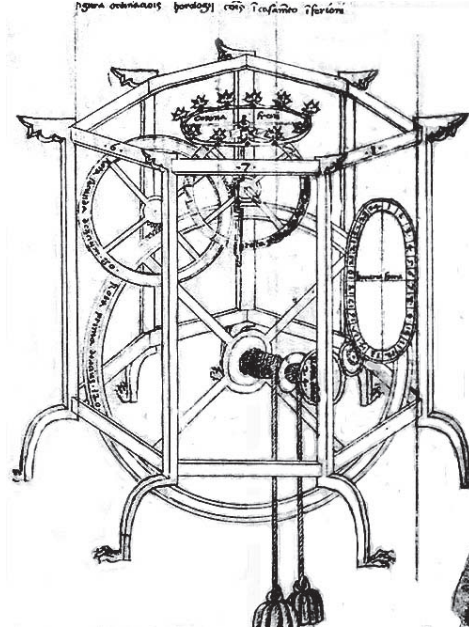
All of these references to change are based on the idea that things change over time, or should change over time. In this respect, as with the physicist and philosopher, Ernst Mach, we can examine change and time alongside one another as, 'time is an abstraction at which we arrive by the changes of things.'<sup>12</sup> We are used to the idea that time moves evenly from the past to the future. We have come

to think of time in equal segments for convenience and scientific measurement. Starting with hours that divide the day into 24 equal parts, minutes that divide each hour into 60 equal parts, down to the minimum usable level for quantum physics as divisions of Planck time, the time light takes to travel a Planck length or  $\lambda$  – about  $10^{-20}$  times the length of a proton. Hours were, however, not always even. In ancient Rome and the European Middle Ages, the day was divided into 12 hours from sunrise to sunset, meaning the length of the hour varied according to the season. A similar system was used in Japan until 1912.

While mechanical clocks and the need for a uniform measurement for scientific purposes have created even divisions, all time is based on our experience of astrological phenomena. When we move into months and years, based on the earth's relationship with the moon and sun respectively, uniform measurement becomes more difficult. Months are not the same and the year, as divided into equal days and hours, has to be corrected for astronomical time every four years.

These are all more or less accurate methods of providing some regularity of measurement, but from everyday life we know that we do not experience the passing of time evenly. When we sleep we are not aware of the hours that pass. Each of us will have occasions when time seems to go by quickly and when time seems to drag. As Rosalind says in William Shakespeare's *As You Like It*, 'Time travels in divers paces with divers persons. I'll tell you who time ambles withal, who time trots withal, who time gallops withal, and who he stands still withal.' Psychological tests have reinforced these intuitive experiences and have found that 'changing the "content" of a time period, particularly the amount of information processing required, will reliably change passage

of time judgements; a greater amount of information processing is associated with faster passage of time.’<sup>13</sup>



*2. Mechanical clocks established the convention of uniform and equal time.*

We have rationalised time to a linear process; as something that, in accordance with our convention of writing from left to right, we represent either as moving in an evenly calibrated line with the past to the left and the future to the right, or moving vertically in either direction. As our experience and measurement of time is based on astronomical phenomena that repeat themselves - days, months, seasons, years – many cultures have represented time as cyclical. Recognising that time and change are coextensive, the regularity of astronomical events has been extended to the changes in human affairs.

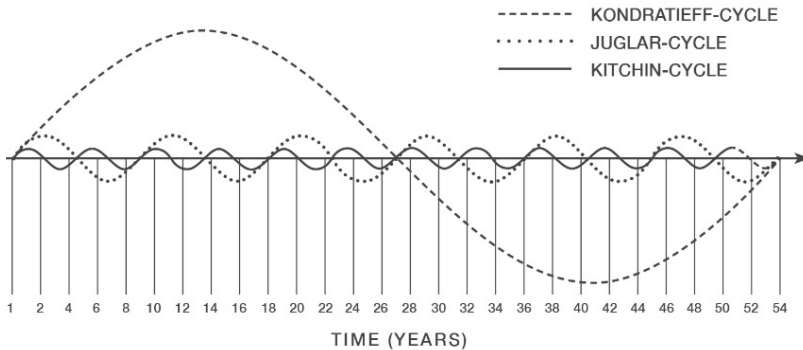
In classical antiquity, the fifth century BCE historian, Thucydides, believed that ‘what happened in the past .... will, in due course, tend to be repeated with some degree of similarity;’<sup>14</sup> in the second century CE, the Roman Emperor-philosopher, Marcus Aurelius, said that, ‘all the cycles of creation since the beginning of time exhibit the same recurring pattern.’<sup>15</sup> In eleventh century CE China, an ‘Epoch Cycle’ was 129,000 years, made up of 12 ‘Conjunction Cycles’, each possessing its own 30 cycles, each of these cycles being 12 generations long, and each generation 30 years long. The Indian calendar, adopted from the earlier Sanskrit, had a 2,850-year ‘Great Year’, composed of 150 19-year cycles calculated from lunar and solar activity.

These long cycles could never be tested in any kind of human memory, but were also alien to both the Christian view of time moving to the Apocalypse and the end of time, and the Enlightenment principle of progress through time, which is necessarily linear and directional into an improving future. The idea of prediction by the identification of repetitive patterns, however, survives in the present and is more usually expressed as waves on a linear scale. In particular, the theory of the economic waves of growth and recession persists.

### **3. Change, Economics and Innovation**

The benefits of anticipating changes in economic activity are obvious. Accurate knowledge of when prices are likely to rise or fall, or economic activity speed up or slow down, could be the route to enormous wealth and, as the science writer, Philip Ball, says, ‘Economic ups and downs are an intrinsic feature of the capitalist game ... They are a part of the natural rules of the economy.’<sup>16</sup> It is not surprising that there have been a number of attempts to use history to

provide a regular pattern to these changes by historians and economists. Among the more famous is the long, 40 to 60 year cycle put forward by the Russian economist, Nikolai Kondratieff in 1922, called the 'Kondratieff Wave'. There are many others based on different criteria and of varying lengths. In 1930, Simon Kuznets identified 'swings' of 20 to 25 years, associated with immigration patterns. In 1933, the French historian, Ernest Labrousse, proposed 'intercycles' of economic contraction of 10 to 12 years, based on monetary and technological change. One of the first exponents of business cycles was the French statistician, Clement Juglar, who, in 1862, put forward roughly 8 to 11 year cycles of prosperity, crisis, and liquidation. In the 1920s, Joseph Kitchin observed a three-to-four-year supply and demand cycle in bringing commodities to the market.<sup>17</sup>

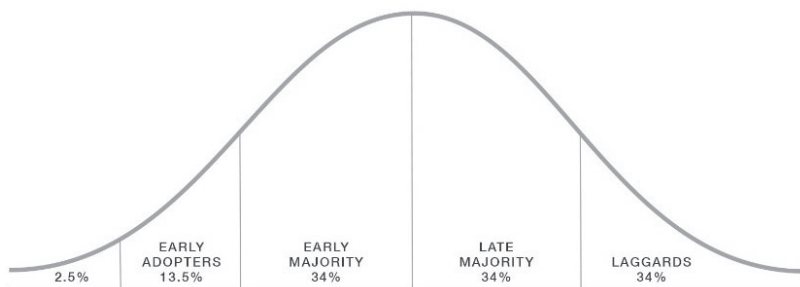


*3. The Kondratieff Wave, Juglar Cycle and Kitchin Cycle compared. A number of economists tried to establish regular patterns of changing financial markets.*

These cycles are usually represented diagrammatically in a wave format over a constant timescale moving from left to right. The upward curve of the wave is generally a version of the bell curve, also known as the normal distribution curve or Gaussian curve (after the German mathematician, Karl



Friedrich Gauss, who discovered its properties in 1809). This symmetrical curve represents the most common statistical distribution of phenomena, with the most frequent in the centre lessening gradually as plus and minus values to the left and right. It is, however, generally a static diagram that encompasses a series of lines or points. When applied over a timescale going from one side to the other, the curve takes on a different meaning. At one side it will be the slow or numerically small beginning of a change, rising to the maximum change and eventually gradually declining over time. The curve becomes an expression of variable change over a consistent measure of time, and this is intuitively how many events seem to progress. Remembering that, in the words of the Brazilian philosopher, Roberto Unger, 'time is intimately and internally connected with change,'<sup>18</sup> these curves are a way of showing that change, and therefore the pace of time, are not regular and constant for whatever phenomenon they seek to represent.



4. Everett Rogers. A bell curve describing the 'innovativeness dimension' measured by the time at which an individual adopts an innovation or innovations.

In his seminal book, *Diffusion of Innovations* in 1962, Everett M. Rogers used a diagram of a curve, similar to the normal distribution or bell curve to illustrate his

observations and analysis of a number of cases of innovations, how they started, were adopted more widely, and eventually fully taken up. He divided the bell curve along a horizontal timescale into 'five adopter categories, classifications of the members of a social system on the basis of their innovativeness: (1) innovators, (2) early adopters, (3) early majority, (4) late majority, and (5) laggards. The rate of adoption is the relative speed with which an innovation is adopted by members of a social system.'<sup>19</sup> This diagram elaborates and charts the 'slow advance in the beginning, followed by rapid and uniformly accelerated progress, followed again by progress that continues to slacken until it finally stops,' which the French social psychologist, Gabriel Tarde, identified as 'the three ages of . . . invention' in 1903.<sup>20</sup>

#### 4. Architecture and Innovation

Innovation and invention are key goals in much modern architecture and are often regarded as unalloyed virtues driving the engines of change. The degree of innovation is frequently cited as one of the principal criteria in assessing architectural awards: the Royal Architectural Institute of Canada has an 'Innovation in Architecture Award';<sup>21</sup> Architecture 2030, a non-profit organisation in Santa Fe, New Mexico, gives an 'Innovation 2030' to 10 architecture students;<sup>22</sup> and the Scottish 'Saltire Society Housing Design Awards' have been 'rewarding and advocating innovation' for 80 years.<sup>23</sup> Architecture schools make innovation an educational goal: the European University of Valencia, Spain, offers a Masters in Architecture, Design and Innovation;<sup>24</sup> and the University of Portsmouth in England advertises a course in 'Innovation through Architectural Design'.<sup>25</sup> 'Images Publishing' documents the 'the 50 best designers under 50' in a book entitled, *Fifty*

*under Fifty: Innovators of the 21st Century*. The Dutch architect, Winka Dubbeldam, when asked to describe her architecture, responded, 'innovation'.<sup>26</sup> The Swiss architect, Bernard Tschumi, describes his work as, 'placing architecture back in the realms of ideas and invention'.<sup>27</sup> An architectural firm in Pittsburgh, Pennsylvania, simply has the name, 'Architectural Innovations',<sup>28</sup> and another in London calls itself 'Innovation Imperative'.<sup>29</sup>

Architectural references to innovation generally refer to aesthetic innovation and even when technical innovation is introduced, it often has to be signalled with visual difference. There is, however, no practical benefit in aesthetic innovation, and technical innovation does not come with an aesthetic instruction manual. As the historian of technology, George Basalla, points out: 'science dictates the limits of physical possibilities of an artifact, but it does not prescribe the final form of the artifact; Ohm's law did not dictate the shape and details of Edison's lighting system nor did Maxwell's equations determine the precise form of circuitry in a modern radio receiver.'<sup>30</sup>

The centrality of innovation in current architectural ideology is, in reality, a 'virtue transfer' or 'migration of meaning' from industry. In capitalist economies, technical innovation is a major driver of change which can improve living standards and stimulate commercial competition and, as such, is considered positively. The Organisation for Economic Co-operation and Development (OECD) defines innovation as, 'production or adoption, assimilation, and exploitation of a value-added novelty in economic and social spheres; renewal and enlargement of products, services, and markets; development of new methods of production; and the establishment of new management systems.'<sup>31</sup> The Bloomberg Innovation Index, an annual

ranking of innovation by nations, is based on six criteria: research and development; manufacturing; high-tech companies; post-secondary education; research personnel; and patents.<sup>32</sup> In all of this, there is no mention of aesthetic innovation. Even technical innovation does not necessarily have an outcome that provides a social benefit: gas chambers were an innovation in genocide, the atomic bomb an innovation in slaughter.



5. 33 Vestry Street, New York City, 2008, Winka Dubbeldam. Dubbeldam describes her architecture as, 'innovation'.

The association of the positive aspects of technical innovation with aesthetic innovation is a part of the fixation with change for its own sake in architecture and, to a lesser extent, urban design. This is part of what George Basalla calls 'the myth of the heroic inventor'.<sup>33</sup> The association is made explicit by Patrik Schumacher, Zaha Hadid's partner, in his *Parametric Manifesto* of 2008: 'A new style in architecture and design is akin to a new paradigm in science; it redefines the fundamental categories, purposes and methods of a coherent collective endeavour. Innovation in architecture proceeds via the progression of styles so understood.'<sup>34</sup> We can, nonetheless, equate aesthetic innovation in architecture and urban design with changes in style, as Schumacher suggests. Style changes in these disciplines, as in all things. This can be agreed without turning change or innovation into a fetish.

## 5. Post-Modernism, a Case Study in Change

### *The Rise and Fall of the Style*

Using Everett Roger's bell curve charting the diffusion of innovations to represent style, we can re-name Roger's categories with more obvious references to changes in style or movement as: (1) ideas and experiments, (2) mainstream, (3) reaction, (4) decline and survival. These categories and this curve can be applied to an architectural style or movement. It is possible to illustrate this with the most recent architectural movement or style to have a clear identity, a beginning and an end: Post-Modernism.

What follows is a very rough sketch of the movement. The purpose of this description is not a comprehensive history, nor a part of the debate on what, in fact, constituted Post-Modernism, nor whether it transmuted into something else,

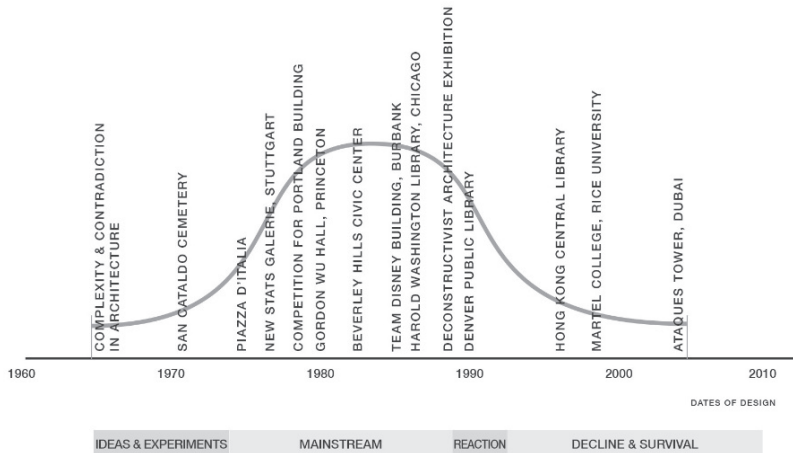
but is only to give an example of the progress of an identifiable architectural style or movement.

Post-Modernism began its *ideas and experiments* in the late 1960s and 1970s. The key publication was Robert Venturi's hugely influential *Complexity and Contradiction in Architecture* in 1966 which, together with his few small projects, challenged the modernist orthodoxy of the time. In the decade that followed, a number of architects, such as Charles Moore in the USA and Ricardo Bofill in Spain, began to experiment with capricious and historically inspired designs that ran contrary to the dominant austere and mechanical phase of Modernism of the time. In the 1980s, Post-Modernism began to enter the mainstream. The flagship buildings were Michael Graves' Portland Building in Portland, Oregon, which won in competition in 1980 and opened in 1982, and Philip Johnson's AT&T tower in Manhattan, opened in the same year. The style took on a number of forms. But it is best remembered for, what Charles Jencks, its principal theorist and historian, called 'Post Modern Classicism'. In this form it entered the international *mainstream* for the next decade.

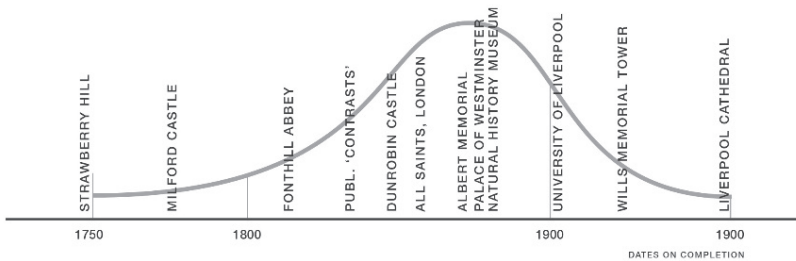
The style was reviled by much of the old guard in the architectural establishment as it deliberately challenged their modernist orthodoxy. It was considered to be shallow and aesthetically profligate. By the end of the 1980s, as the style became a stock-in-trade of a commercial architectural boom, even its pioneers began to doubt it.<sup>35</sup> An exhibition entitled *Deconstructivist Architecture* opened at the Museum of Modern Art in New York in 1988, signalling the emergence of a new style or fashion (and Post-Modern architects were sensible to the fashionable nature of their style). By the early nineties, *reaction* had set in.

Such is the slow pace of architecture from inception to completion, that during the *decline* of the movement, many Post-Modern buildings continued to open. In 1995, buildings like Michael Graves' Denver Public Library, Colorado, and Terry Farrell's MI6 building in London, were markers of the end of the movement. It did, however, *survive* and the combination of modernity and the opportunity for historical cultural reference remains popular in some developing economies. The orthodox, traditional and classical revival that was either part of Post-Modernism, or associated with it, continues to this day.

Accepting the sketch as a summary, it can be charted on a Roger's bell curve with the height designating significance, or rate of adoption, and divided according to the stages noted above. A similar curve could be used, for example, for the gothic revival of the late-eighteenth to the early-twentieth centuries.



6. The rise, peak and fall of Post-Modernism charted on Everett Roger's bell curve.



### 7. The rise peak and fall of Gothic Revival.

Changes in the way of thinking about architecture, as with any change, do not happen in isolation. There is an academic and philosophical background to Post-Modernism with which it is frequently identified, particularly by some architects and historians. But both the academic and the architectural disciplines sit within, and are a part of, a much wider and more significant social, political and economic context. An examination of these gives some rationale to the rise and fall of the style.

### *The Post-Modern Rise and Fall in Context*

As Napoleon Bonaparte is reputed to have said, 'To understand the man you have to know what was happening in the world when he was twenty.' In the 1970s, the leading members of the architectural establishment, as with all establishments, were in their fifties and sixties. They had been born in the early part of the twentieth century and their view of life, formed in their early adult years, would have been heavily influenced by the Great Depression and the Second World War. Modernism would have been revolutionary and new and associated positively with the post-war economic boom, also known as the 'Long Boom' or the 'golden age of capitalism'. This was a twenty-year period in the 1950s and 60s of global economic expansion and low



unemployment - a dramatic contrast to the poverty, unemployment and instability of the pre-war years.

The principal founding Post-Modern architects were born in the late 1920s and 30s. Their early adult life was in the 1950s, at the start of the Long Boom. The Great Depression would have, at best, been a childhood memory and the War would have been viewed from childhood or at least from home. By 1970, Modernism would have been the only architectural style with which they would have had first-hand experience and these architects would have been at creative peak in the late 60s or early 70s.

By the early 1990s, their place would have been taken with architects born after the War, for whom the confusion of Post-Modernism and its erratic relationship with Modernism would have been a feature of their early architectural careers.

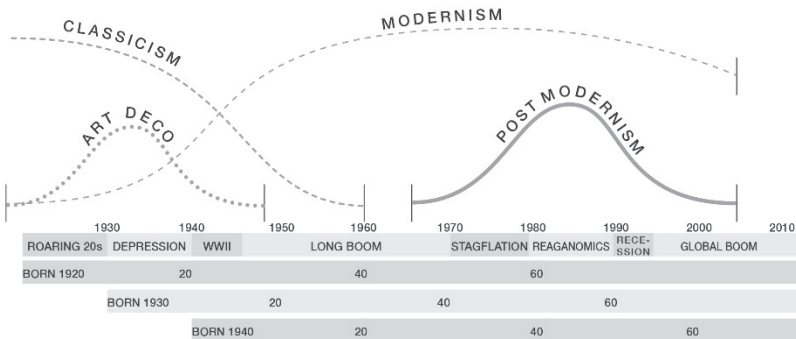
The rise of Post-Modernism can be seen as a natural change as different age groups, or cohorts, with their different experiences of life, progressively gain influence. We can add to this the historical perspective of the political and economic background that will have set the scene for Post-Modernism.

The first oil crisis in 1973 brought the Golden Age to an abrupt end and the remainder of the 1970s was a turbulent period. It was a period of slow economic growth, high inflation and unemployment, given the name 'stagflation' by a British politician.<sup>36</sup> Events such as the ignoble end of the Vietnam War, the Watergate Crisis, the domestic terrorist campaigns of Red Brigades in Italy and the Red Army Faction in Germany, as well as environmental

catastrophes and the Iranian Revolution, all added to the instability of the decade.

In 1979, Margaret Thatcher was elected as British Prime Minister and, in January 1981, Ronald Reagan was elected President of the USA. Following a severe recession, these two leaders worked together to promote *laissez faire* economics in the developed world with reduced government intervention, lower taxes and deregulation of the stock markets - called at the time 'Reaganomics' - which stimulated an economic boom from the mid-1980s.

A combination of the 1988 Black Monday stock market crash, the Iraqi invasion of Kuwait in 1990 and the consequent oil price shock, and an overheated late-1980s construction boom, led to a severe recession in the developed world from 1990 to 1993 with particular effect on the construction industry.



8. The Post-Modern bell curve, political events and key age cohorts correlated.

When these cohorts and social, political and economic events are put together with the Roger's bell curve of the rise and fall of Post-Modernism, the picture becomes clear.

It moves from a stylistic innovation that fitted the scepticism with the established order in the 1970s, to the association of the movement with the 1980s economic boom, to its discredited association with a boom that led to an economic collapse. If we add to this a larger Roger's bell curve for Modernism (and in the interests of completeness the decline of early-twentieth century classicism and Art Deco), it illustrates how, following the collapse of Post-Modernism, the continuity of Modernism came back to the fore.

These bell curves are inevitably simplifications of these movements. Modernism, for example, had many stages and variations, but all adhered to the core philosophy of overt newness. Early-twentieth century classicism incorporates both Baroque revival and Neo-Georgian but were both classical in inspiration. It would, as with Art Deco, be possible to populate the chart with sub-movements, but the chart serves its purpose of illustrating the irregular patterns of change in architectural movements or styles.

The correlation of generational and social, political and economic events, illustrates that there was nothing inevitable about the rise of Post-Modernism, or any other change in architectural direction. Other styles and ideas, now often largely forgotten, such as Chip Lord's organic architecture in Ant Farm, or those never graced with a name, did not go further than ideas and experiments, but could have aligned with broader events in different circumstances. It is the alignment of certain ideas and experiments, talented designers and publicists and social, political and economic conditions, none of which can be predicted, that bring a style or movement to the fore. It is only in retrospect that these stylistic movements seem to have been predestined for success. Regardless of what they are, they will unavoidably reflect the age in which they occur.

## 6. Variable Rates of Change and their Consequences

The application of these different Roger's bell curves to developments in architecture, as well as society more widely, is an illustration of the uneven pace of change. If the pace of change is uneven, the passage of time itself is also uneven, at least in relation to these phenomena.

As discussed above, this irregular pace of time is well-known in everyday life. This unevenness of time, however, goes beyond particular experiences and is fundamental to how time impacts on all aspects of our lives and the nature of time itself. Variable rates of change in history was one of the key propositions of the French historian and member of the *Annales* school of historians, Fernand Braudel, in his seminal book, *La Méditerranée et le Monde Méditerranéen à l'Époque de Philippe II*, of 1949. He proposed that historical time moved at three different speeds: the almost stationary time of geology and geography, *longue durée*, the slow time of changes in social and economic structures, *conjunctures*, and the faster time of political events, *événements*. These were also expressed as geographical time, social time and individual time.<sup>37</sup>

The rate of change is also not constant from place to place. As the British historian of technology, David Egerton, pointed out in 2006, 'the USSR grew very fast in the 1930s, while the rest of the world did not. Especially since the 1970s many economies in the Far East have grown very fast, but from a low base. The increasing scale of the Chinese economy in particular has meant that its growth has been enough to alter global statistics materially.'<sup>38</sup>

There are many consequences of varying paces of change.

Stephen Pinker, the Canadian-American cognitive psychologist and author, tells us that, 'The study of humans from an evolutionary perspective has shown that many psychological faculties (such as our hunger for fatty food, for social status, and for risky sexual liaisons) are better adapted to the evolutionary demands of our ancestral environment than to the actual demands of the current environment.'<sup>39</sup> As significant physiological changes in humans can take around 1,000 generations to evolve, our physiology and behavioural traits are still anchored in our evolution during the Pleistocene Era, from more than two million years ago up until around 12,000 years ago. Our digestive system and our ability - and even propensity - to gorge on large quantities of food are probably based on survival with unpredictable hunting outcomes. The virtual eradication of hunger in developed societies and the development of processed food, however, is at most two centuries old. This imbalance of rates of change is one of the root causes of rich-world obesity.

The colonisation of hunter-gatherer societies by industrialised nations brought about a collision between two very different concepts of change over time. For indigenous societies, there often had been very little change for many generations; with a functioning subsistence economy, the pace of life would have been regular and slow. Industrial societies, on the other hand, were experiencing rapid physical change and the view that, as Benjamin Franklin said in 1748, 'time is money' and should be spent efficiently, was widely accepted.<sup>40</sup> The Aboriginal population of Australia had a particular concept of time we now call 'Dream-Time', which 'exists independently of the linear time of everyday life and the temporal sequence of historical events ... it was there in the beginning, underlies the present and is a determination

of the future ... it refers to origins and powers that are located in places and things.'<sup>41</sup> The British historian, Penelope Corfield, describes the consequences of the Aboriginal acting out of Dream-Time:

... communal memories are tapped by regular journeys ('walkabouts') to visit the places that act as memory markers. It was a historical tragedy when this custom was entirely misunderstood as feckless 'wandering' by the European settlers who arrived in the nineteenth century to contend for the land. The outcome saw the displacement of the indigenous people not only from their accustomed territories but also from their history markers, generating among them and their descendants a cultural disorientation that has been hard to overcome.<sup>42</sup>



A SKIRMISH NEAR CREEN CREEK, QUEENSLAND.

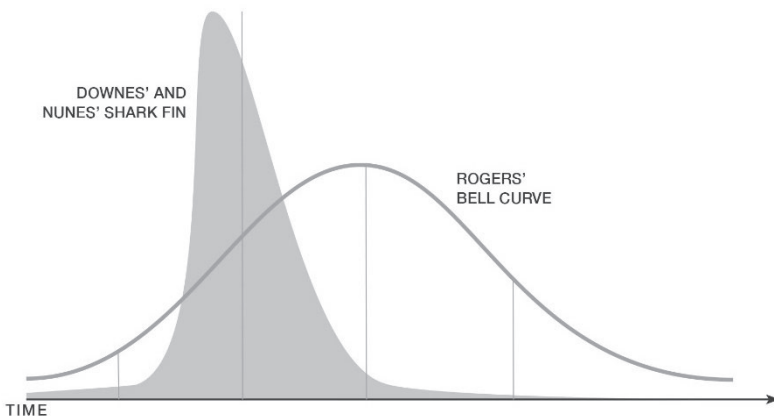
9. *Skirmish Near Creen Creek, Queensland, Australia, nineteenth century print. The concept of time of the Australian Aboriginal population clashed with the industrial-era concept of time of the European colonists.*

Our post-industrial society is, at certain technological levels, experiencing an unprecedented rate of change. The digital revolution in communication, calculation and information marshalling, all at great speed, delivers a new measure of time. In 1997, The French philosopher of technology, Paul Virilio, identified this as the next stage in an historic speeding-up or compression of time, in this case through the medium of communication: ‘The teletechnologies of real time are . . . killing “present” time by isolating it from its here and now, in favour of a communicative elsewhere that no longer has anything to do with our “concrete present” in the world, but is the elsewhere of a “discreet telepresence” that remains a complete mystery.’<sup>43</sup>

This is illustrated by Larry Downs’ and Paul Nunes’ updating of Everett Roger’s work on the diffusion of innovations for the digital age in their 2014 book, *Big Bang Disruption*.<sup>44</sup> By a similar real-life analysis of largely digital products brought to the market, they substituted Roger’s bell curve with a sharp spike they call ‘The Shark Fin’. This consists of four parts: ‘the Singularity’, a slow build-up of experiments, often failed; ‘the Big Bang’, the rapid market adoption of the product and abandonment of old models; ‘the Big Crunch’, rapid market saturation; and ‘Entropy’, where obsolescence can stimulate the next Singularity. The time-span of a Shark Fin is often measured in months, which makes it relevant to the fast track of the digital product, but not to other products which, by their nature, can only move in years – such as architecture and, more particularly, urban design.

It has, however, long been the mission of architects to see themselves at the forefront of - or at least moving in line with - the most recent changes in industry and product

design. The principle of being in step with the latest things in the modern world is one of the founding ideas of Modernism and, as Zaha Hadid is quoted above, persists to this day. Kasimir Malevich's *Suprematist Manifesto* declared in 1924, 'We want to create new relationships to the content of today ... on the plane of the present, of today!'<sup>45</sup> In 1923, the Dutch architect J. J. P. Oud in 1921 and the Swiss architect, Le Corbusier, set out a number of things that were seen at the time as up-to-date. The list includes steamers, cars and aeroplanes (as well as some things we would today not identify as characteristically modern even at that time, such as sports clothes and briar pipes) and these architects saw them, respectively, 'as the purest expression of their time, the elements of a new language of aesthetic form, and can be considered as the point of departure for a new art'<sup>46</sup> and, 'fixing its own style day by day.'<sup>47</sup>



10. Downs' and Nunes' shark fin curve of the rise and fall of digital age innovation contrasts with Roger's bell curve.

With the fast change of digital technology, it is clearly impossible to reflect this in anything so time-consuming to



construct, and permanent, as architecture, let alone urban design. In reality, although the difference in production time between a steamship and a building was not at all significant in the early twentieth century, it was always a false goal. It was based on the fundamental error of seeing the change in all phenomena on an equal time scale; if a car could be designed in a factory in a short time, so should a building, and consequently they should share an aesthetic. This suggestion ignores not only the quite different developmental, functional and manufacturing constraints between the automotive industry and building construction, but also the different cultural time frame of the products.

Even the modernist pioneers understood that architecture did not just require technology, but also had a role as a major cultural symbol. While new technologies may influence the efficiency of construction in a short timescale, not only is there no necessity to represent this literally and overtly, but the aesthetic symbolism of the building is of a quite different order. Their contention was, of course, that these things were co-extensive. Culture, however, moves at a different pace to technical invention.

The American sociologist, Edward Shils, defines society specifically in terms of its longevity.

A society is a 'trans-temporal' phenomenon. It is not constituted by its existence at a single moment in time. It exists only through time. ...To be cut off from the past of one's society is as disordering to the individual and to the society as being cut off in the present. ...

The connection which binds a society to its past can never die out completely; it is inherent in the nature of a

society... A society would not be a society if this bond were not there in some minimal degree.<sup>48</sup>

The British sociologist, Martin Albrow, goes further and defines an epoch by the continuity of culture: 'An epoch is the landscape of a culture over a period of time in which fundamental features are formed, persist and decay'.<sup>49</sup> And the continuity of culture through time seems, according to the anthropologist, Robert Boyd, and the biologist, Peter Richerson, to be a fundamental human characteristic:

Archaeological evidence also gives direct, if rather sketchy, evidence that culturally transmitted traits can persist for a long time. Archaeologists frequently use artefact traditions to reconstruct the spread of populations, and ethnographers and linguists use similarities between artefacts and language to estimate the historical relationship between contemporary societies. ... To judge by the use of named cultural traditions, induced from durable artefacts, a typical item in an individual's cultural repertoire persists much longer than his own lifetime. Sometimes it seems plausible that such traditions have persisted even in the face of radically changing environments.<sup>50</sup>

There can be slow and fast technical development and the speed of change is not the defining characteristic. We know, however, that innovation and material change can take place rapidly. Although it is possible for them to correlate and even relate to one another, the pattern of change for technical development and culture is quite distinct and one cannot combine their pace of change as a necessary condition for either phenomenon. The symbolic representation of culture in architecture operates at a different, and generally very much slower, rate than technical development in construction. Any attempt to link

them can be culturally incongruous and, as Shils points out, cultural dislocation can be socially damaging. It follows that technical change, while sometimes practically desirable, should not dictate the symbolic representation of culture.

## 7. M. R. G. Conzen and Variable Urban Change

Once it is recognised that time passes and change takes place at different speeds for different phenomena, this can be a valuable consideration in the practice of architecture and urban design.

The growth of towns and cities, and how they change over time, was studied in the 1950s and 60s by the urban geographer, M. R. G. Conzen, founder of the Anglo-German school of urban morphology. Conzen studied urban morphology *inter alia* on the principle that: 'The complex nature of the town as a region ... is so great that its study cannot be pursued adequately by one exclusive research approach, for example, the functional one. ... we need the strategy of the three complementary approaches: the functional, the morphological, and the historico-geographical.'<sup>51</sup>

Following a detailed study of the city of Alnwick in north east England, and other towns in England, Germany and Japan, Conzen identified three timescales in the way that towns change, which he called 'principle of morphogenetic priority.'<sup>52</sup>

... the townscape is ... composed of three very different, though integrated, systematic form complexes, namely, the town plan, the town's building fabric, and the urban land and building utilization pattern. These show a differential time response to the changing functional requirements of

the urban community. Town plan, and to a lesser extent, building fabric, are more conservative in this respect and more resistant to change, as they tend to reflect the pattern of past landownership and capital investment more tenaciously .... Land utilization responds more easily to changing functional impulses and therefore the historicity of its distribution pattern is often weak. The upshot of all this is a marked spatial variation in the town's historicity.<sup>53</sup>

This breakdown of timescales is similar to that of the historian Braudel, see above. The town plan, which Conzen links to 'settlement geography' and 'terrain' has 'persisted stubbornly through the centuries.'<sup>54</sup> It has a near parallel in Braudel's *longue durée*. 'Building fabric in terms of building types and their distribution pattern'<sup>55</sup> 'changes very slowly'<sup>56</sup> and has the same position in relative timescales as Braudel's *conjunctures*. Finally, land utilization or function, such as 'plot concentration, building obsolescence, adaptation and replacement, floor-space concentration, plot and building specialisation.'<sup>57</sup> which can occur quite rapidly, correspond to Braudel's *événements*.

Conzen sees this pattern of variable time frames of urban change as something rather more than just a pragmatic analytical framework: 'Through the accumulation of successive period-orientated forms, a townscape, like any other cultural landscape, acquires historical character or *historicity*, thus making a townscape more interesting and expressive of its own unique personality' (emphasis original).<sup>58</sup>

While this is an observation of what *has* happened in the development of towns and cities, urban designers have to set down the framework for how towns or districts of towns (often as large, if not larger than, the original size of substantial historic towns) *will* develop in the future. As the

architectural theorist, Neil Leach, puts it, 'Over time the fabric of the city evolves through interaction with its inhabitants. ...The task of design therefore would be to anticipate what would have evolved over time from the interaction between inhabitants and city.'<sup>59</sup> We can, therefore, use an understanding of how cities have evolved to inform us, at least in principle, of how they are *likely* to evolve and use this as guidance in urban design.

Urban design, as with all design, concerns predictions of an unknown future. In the design of new towns and cities and their districts, this future will most likely be long. Any new place on the scale of a small town cannot be built at once; frequently from the cutting of the first turf until the construction of the last building (if such a final event ever takes place) the construction period can be twenty years or more. In this time there are likely to be significant social, political and economic changes that can affect the principles and details of the design. Furthermore, these changes will not only occur during construction, but in the decades and centuries that follow. In managing the future of the design, and in the face of inevitable change, it follows that it would be wise to consider firstly, and most importantly, those things that are more likely to survive these events and their consequences. This will not only assist in the process of growth, but also allow for greater adaptability over time.

As Conzen was concerned with the study of the morphology of towns that exist, his starting point was the area he designated the 'Old Town'<sup>60</sup> or the original settlement. Much urban design, however, is concerned, first of all, with the unbuilt landscape into which the new development will be located. The topography and geography are, therefore, the phenomena that have, and will, last the longest.

Historic towns grew from the location of harbours, river crossings, the confluence of rivers, crossroads in topographically passable routes, places of particular fertility and so on. These natural features have usually come into existence over millennia and thousands of millennia, their geographic logic is highly resistant to change if not, to all intents and purposes, immutable, and they give a continuing coherence to the places that have grown up around them. This pattern of longevity moves further back than Conzen's 'Townscape' and comes closer to Braudel's *longue durée*: geographical time where, 'All the stages, all the thousands of stages, all the thousand explosions of historical time can be understood on the basis of these depths, this semi-stillness. Everything gravitates around it.'<sup>61</sup> We may have unprecedented abilities to transform topography, but all new design should, as all past urban growth did, take as its first consideration an understanding of, and a positive response to, the landscape and geography of the place.



11. Alnwick, Northumberland, England. The urban geographer M. R. G. Conzen used Alnwick as a case study for the different paces of change of different urban elements.

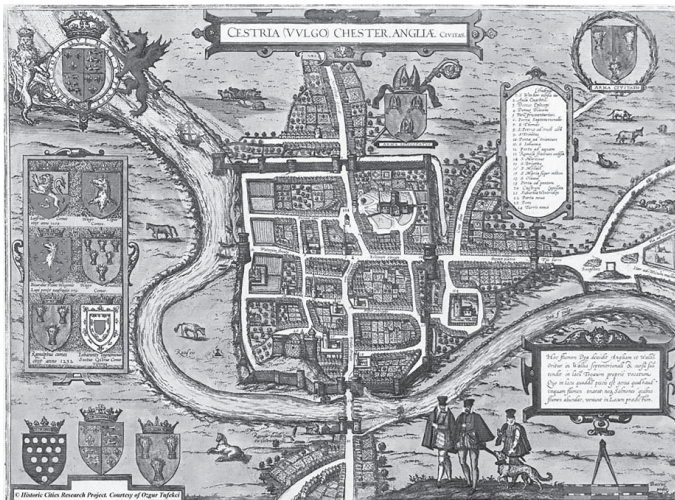
Add to this the historic pattern of existing places. Much urban design is, in fact, urban extension and the form and logic of the place which is to be extended, or the relationship between the new place and the interrelationship between existing places, will be of relevance to the new design. This is the pre-existing townscape or pre-existing relationship between settlements. When this urban form and the relationship between places is historic and has been gradual, it is generally a pragmatic response to geography and climate. In design terms, although these pre-existing places are themselves subject to change, the stability created by their history and the inherent inertia of the town plan (see below) tend to give them a more gradual pattern of change than the new townscape that will be created in any new design. New design is, in effect, the next chapter in the book of the growth of the place; the book can only make sense if each new chapter has some continuity with the previous chapters. Continuity with the adjacent urban form or the wider pattern of urban type will respond to the history and the consequent and probable slow change of the pre-existing urban plan.

Moving beyond this pre-existing context, we can relate new urban design quite specifically to Conzen's tripartite time frames for the morphological study of existing places: town plan, building fabric and function.

As Conzen says, the town plan or, 'ground plan is unlike most other physical and functional elements of towns and cities in demonstrating the genetic approach in settlement geography. This is because no matter what changes occur in the appearance of towns, the streets and their extremities have persisted stubbornly through the centuries.'<sup>62</sup> Its survival is largely because it is described by



the principal pattern of movement and acquired rights of way through the place, the services (drainage, power etc.) tend to pass through or alongside these routes, and it provides the prime definition of land ownership. With experience, it is easy to read the age of a town plan, ground plan or figure-ground plan: 'One can read from them, above all, the different economic and political-legal conditions of the respective towns and their residents prevailing in each period - for example, the formation of the market place, the original settlement nuclei, and so on.'<sup>63</sup> These plans will unavoidably reflect current social context, economic conditions, regulations, modes of transport and urban design theories, but they are persistent and knowledge of their longevity should be an important factor in their designs.



12. Braun and Hogenberg's map of Chester, England, 1581. Although all the Roman buildings have gone, the gridded town plan survived.

Built fabric, largely architecture, can be slow to change but is less permanent than the town plan into which all



buildings are placed. As with town plans that go back a thousand years or more, the plan can survive but none of the original buildings. Buildings can also change rapidly and are subject to changing economic conditions where replacement delivers greater profit, or simply a change in fashion. The Canadian architect and author, Witold Rybczynski, describes how even the architecture of the most eminent practitioners has not been immune from rapid changes in fashion or finance: 'Charles McKim's epic Pennsylvania Station was demolished fifty-four years after it opened; Frank Lloyd Wright's splendid Larkin Building was gone after forty-seven years; H. H. Richardson's monumental Marshall Field store endured forty-three years; and Stanford White's marvellous Madison Square Garden was taken down after only twenty-five.'<sup>64</sup> To base an urban design on the buildings within it is an ahistorical folly.



*13. Penn Station, New York, built in 1910 and demolished in 1963, illustrates the potential impermanence of even the most significant architecture.*

Finally, the function of the buildings or, as Conzen more broadly defines it, 'land utilization', which, 'responds more easily to changing functional impulses and therefore the historicity of its distribution pattern is often weak.'<sup>65</sup> The way buildings are used, therefore, is likely to change in a short timescale. This is described in 1994 in Stewart Brand's important book, *How Buildings Learn*: 'New usages persistently retire or reshape buildings. ... From the first drawings to the final demolition, buildings are shaped and reshaped by changing cultural currents, changing real-estate value, and changing usage.'<sup>66</sup> The house that becomes an office, the offices that become apartments, the factories that become lofts are all familiar changes in towns and cities and can change and re-change in a few years as urban conditions dictate.

## 8. Urban Change and Architecture

Based on the principle that the likely rate of change over time in different aspects of urban design delivers relative importance to each phenomenon, an order of significance can be drawn up:

1. Topography, geography and landscape.
2. Adjacent and locally typical urban form and relationships with new design.
3. Urban plan and service infrastructure.
4. Built fabric.
5. Land use and function.

As with all such simplified categories, in practice the relationship between them and the tensions implicit in their different rates of change and the changes in the societies that occupy them, will deliver a complex and dynamic pattern of growth and change. As Conzen observed, 'the

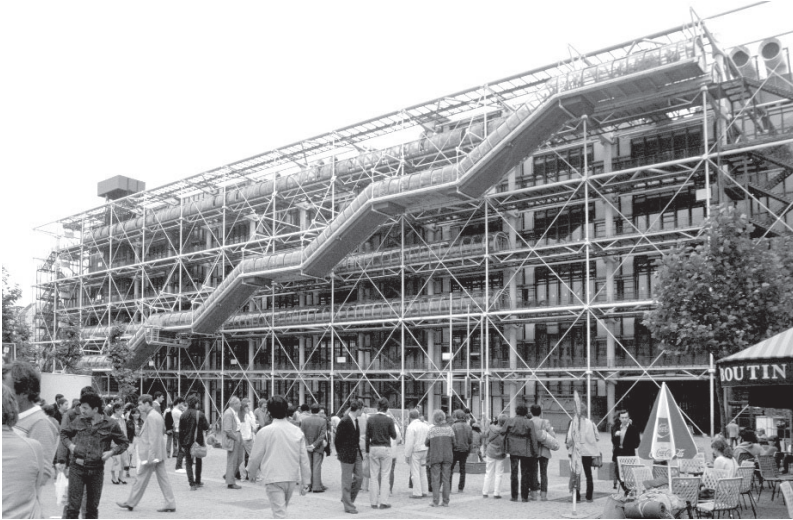
history of a town ... may be very broadly described as those of accumulation, adaptation, transformation, and replacement of forms. In actual fact, their manner of working simultaneously can be quite complicated, as it involves different rates of change between the systematic form categories.<sup>67</sup> He describes these as a 'Functional tension between society and townscape'.<sup>68</sup>

The order of significance set out above does reveal a fundamental difference between the practice of architecture and urban design. An architect, embarking on the design of a building, will have had brought to him or her by a client a primary interest in fulfilling a function and probably, but not necessarily immediately, a site on which the function is to be placed. These will remain the principal concerns of the client, who may have an interest in the urban plan and infrastructure for status and practical reasons, but is unlikely to have any interest in any adjacent urban plan or the local geography. The sequence of significance of architecture is the precise opposite of that of urban design. Nonetheless, variable rates of change in architecture over time are also significant.

## **9. The Importance of Building Life**

Architects find their fame in the immediate flush of interest in the completion of a new building. It is at this moment of first publication that it is most presentable, most photogenic and most modern. If innovation is an objective, it can only be innovative at this moment, anything similar thereafter will just be derivative. Coveted awards are almost always given for new buildings. The Royal Institute of British Architects considered a publication of re-visits to its premier-award buildings after ten years; the project was

abandoned as it was realised that the outcome could be an embarrassment.<sup>69</sup>



14. *The Centre Pompidou, Paris, Richard Rogers and Renzo Piano, 1977. The design was influenced by 1960s theories of changeability but the exterior of the building has changed very little.*

Although architects seek immediate recognition for their work, generally they expect their buildings to last long into the future. There are exceptions: the influential British architect, Cedric Price, promoted the idea that all buildings should be temporary, but even his influence on architects such as Richard Rogers was expressed in buildings that, although promoted as formally flexible, became permanent.<sup>70</sup> A primary architectural objective of modernity and being up-to-date, however, leads to short-term thinking. The perils of this were described by the Finnish architect and author, Juhani Pallasmaa, in a lecture in 2000:

The inevitable consequences of ageing, weathering and wear are not usually considered as conscious and positive

elements in design; the architectural artefact exists in timeless space, an artificial condition separated from the reality of time. The architecture of the modern era aspires to evoke an air of ageless youth and of a perpetual present. The ideals of perfection and completeness further detach the architectural object from the reality of time and the traces of use. Consequently, our buildings have become vulnerable to the effects of time, the revenge of time. Instead of offering positive qualities of vintage and authority, time and use attack our buildings destructively.<sup>71</sup>

If buildings are to last any length of time, they also have to survive the inevitability of becoming old-fashioned. It is often difficult for an architect concerned with modernity to comprehend that modernity is always a temporary state of affairs. The consequences of aging are described by Witold Rybczynski:

The hardest test for a building is between its thirtieth and fiftieth birthdays, when architectural tastes have changed and the original design no longer seems fresh. That is when calls for demolition—or drastic alterations—are most likely to be heeded. If a building weathers this midlife crisis, after several more decades, as the pendulum of fashion swings back, it may once more be appreciated. It helps if a building is functionally, as well as aesthetically, outstanding, for the argument that great architecture should be held to a different practical standard generally falls on deaf ears. It also helps if a building captures people's affections. It is not enough that a building be popular with the general public, however; it must also be appreciated by its owner. If an owner values a building, he will put up with a certain degree of dysfunction - no building is perfect - and will take the trouble to maintain it, make repairs, upgrade obsolete technological systems, and spruce it up every thirty to forty years. If a building fails to capture its owner's favor, however, even architectural greatness will not protect it from the wrecker's ball.<sup>72</sup>



15. Muirhead Tower, University of Birmingham, England. Due to be demolished after expensive refurbishment. The short investment cycle of new buildings does not encourage the use of enduring materials.



The relationship between the owner and the life of the building is complicated by the investment timescales for new buildings. As Rybczynski points out, all buildings require maintenance and updating. The ease of this in the future is established by the materials and services of the original construction, and the value put on such measures is established by the anticipated investment life of the building. Investors in real estate often subscribe to a 'buy and hold' strategy that seeks to cover at least two Labrousse or Juglar economic cycles (see above), or about 20 years. This timespan will be used in calculations to assess the cost-to-return of the investments, with the result that any extra expenditure that takes the building life beyond 20 years will not appear in the calculations and will, therefore, hold no apparent value.

The disregard for long life amongst architects becomes a perfect match for the short-term investment strategy of building financiers. The consequences are negative both for the setting of any group of new buildings and for the energy consumption of the buildings themselves.

## **10. Variation in Building Life and Sustainability**

As a building ages, if its materials and construction age badly, the cost of repair will be high and may be delayed or carried out cheaply. The perceived worth of the building is affected over time both by being old-fashioned and by a history of repairs – each phenomenon influencing the other. In time, each poor repair devalues the appearance of the building such that subsequent repairs have less value and tend to be poorer, setting in train a downward spiral of aesthetic and material decay. This will degrade the setting of the building, particularly if there are a number of buildings with the same dynamic of decay and are not in

an intrinsically high-value area, with the result that values will fall and hasten demolition and replacement.

It is obvious that, in the important calculation of the energy consumption of new buildings, replacement entails very high energy consumption. As there are so many variables to the decision to demolish, the embodied energy of what is to be demolished and the energy consumed in construction, there are no universal and comparative metrics for measurement for the energy consumption of demolition and replacement as against long-term survival. It must be clear, however, that the replacement of a large building every 20 years or so will entail considerably more energy than building fabric that lasts for centuries. As this complex aspect of embodied energy is not computable for standardised energy-consumption calculation, either in the regulation or aspiration for sustainable construction that relies on standardised measurement, it often escapes consideration.

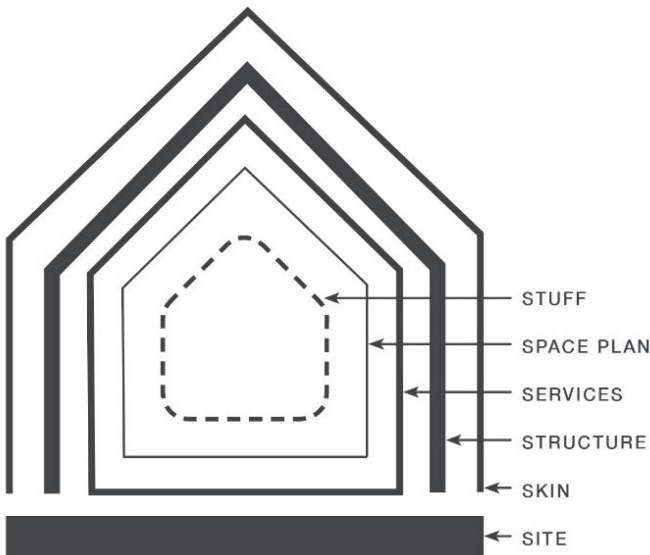
To quote Carl Elefante, former President of the American Institute of Architects, writing in 2007: ‘the greenest building is the one that already exists.’<sup>73</sup> A report by the US National Trust for Historic Preservation in 2016 (which took its title from Elefante’s seminar paper), *The Greenest Building: Quantifying the environmental value of building reuse*, found through a series of case studies that, ‘it takes between 10 to 80 years for a new building that is 30 percent more efficient than an average-performing existing building to overcome, through efficient operations, the negative climate change impacts related to the construction process.’<sup>74</sup> Other than an elementary school and a warehouse-to-office conversion in Chicago with, respectively, 10 to 12 years’ recovery, the recovery rate was calculated at 16 to 80 years. Commercial offices



in Chicago and Portland, Oregon, respectively, had 25 and 42 years' recovery. The report concludes that, 'reusing an existing building and upgrading it to be as efficient as possible is almost always the best choice regardless of building type and climate.'<sup>75</sup>

To balance the unavoidable changes in building function and fabric over time with the benefits of longevity, a more sophisticated understanding of the different paces of change in buildings is necessary.

In 1976, Frank Duffy, a partner in the British architectural firm, DEGW, which specialised in work space, examined the lifetime performance of different parts of commercial buildings, realising that, 'if you distinguish the long term from the short term, a great many consequences flow.' He began by identifying the life of the shell at 40 years and the interior fittings (which he called 'the scenery') at seven years.<sup>76</sup> By 1990, he had developed this thesis and published a paper that presented a comprehensive, time-based analysis of the various components of buildings.<sup>77</sup> He called this 'layering' and divided the building up into seven building elements, each with a 'decision-making lifecycle' ranging from 'indefinite' for the site, to 'day to day' for settings (furniture and equipment). Duffy said, 'Thinking about buildings in this time-laden way is very practical. As a designer you avoid such classic mistakes as solving a five-minute problem with a fifty-year solution, or vice versa.'<sup>78</sup> This study was taken up by his friend, Stewart Brand, best-known as the editor of the alternative-lifestyle *Whole Earth Catalog*, in 1968. In his 1994 book, *How Buildings Learn*, Brand simplified Duffy's sequence to six, maintaining the memorable 'S' alliteration: Site, Structure, Skin, Services, Space-Plan, Stuff. It was accompanied by a diagram.<sup>79</sup>



16. Stewart Brand's diagram of the seven different layers of buildings based on their relative longevity taken from Frank Duffy's analysis.

While Duffy realised the practicality of understanding, 'that there isn't such a thing as a building,' he saw that, 'A building properly conceived is several layers of built components',<sup>80</sup> each with their own pace of change. Brand turned this brilliant insight into a broader social thesis about architecture and time. He placed himself against, 'The fashion game ... for architects,' believing it to be, 'deadly for building users', with the result that, 'time becomes a problem for buildings. Fashion can only advance by punishing the no-longer-fashionable. Formerly stylish clothing you can throw or give away; a building goes on looking ever more out-of-it, decade after decade, until a new skin is grafted on at great expense, and the cycle begins again – months of glory, years of shame.'<sup>81</sup> Making parallels with complex eco-systems, described by the ecologist Robert V. O'Neill,<sup>82</sup> Brand believes that 'slow is

healthy' and that while, 'The quick processes provide originality and challenge, the slow provide continuity and constraint,'<sup>83</sup> he insists that, 'designers should study the present the way historians study the past - diachronically, in terms of change over time.'<sup>84</sup> Brand anticipates the core thesis of this book.

In 2004, Bernard Leupen published *Time-based Architecture: architecture able to withstand changes through time*.<sup>85</sup> Leupen took these principles, reduced the layers to five - structure, skin, scenery, servicing and access - and promoted the idea that the use of the structural frame is the key to building adaptability. This analysis was historically based and this led sequentially to the Modern Movement as the final resolution in the adaptability of buildings.

Allowing for the more generalised proposal of Duffy and Brand's analysis, and following the principles we used for urban design, that the rate of change delivers relative importance, architects in any building design should not only pay more attention to the longer lasting parts of a building, but should also, in the interests of energy conservation, seek to make them last as long as possible. This objective is assisted by the recognition that aspects of the building can and will change more rapidly. Measures should be taken to ensure that - in the Duffy-Brand hierarchy - Structure and Skin are as adaptable as possible to allow for the shorter term changes of Services, Space-Plan and Stuff (we need pay no attention in this scenario to Site, bar ensuring that best advantage is taken of it practically and climatically).

These considerations will come down to the building form - Structure - and the building exterior materials - Skin.

Building form should offer the most opportunities for changes, not only of Services, Space-Plan and Stuff but, as we have seen in our earlier analysis of urban change, in function. Brand sketches out the process:

The old church is torn down, lovely as it is, because the parishioners have gone and no other use can be found for it. The old factory, the plainest of buildings, keeps being revived: first for a collection of light industries, then for artists' studios, then for offices (with boutiques and a restaurant on the ground floor), and something else is bound to follow. From the first drawings to the final demolition, buildings are shaped and reshaped by changing cultural currents, changing real-estate value, and changing usage.<sup>86</sup>

A simple analysis of what form is most adaptable for different future functions will reveal issues such as 10 metres as the maximum depth that can provide an adequate penetration of natural light from both sides, and four floors as the maximum number that can be practically accessed without a lift. A four storey, 10 metre deep building can be an office, an office with shops beneath, an apartment building or a terrace of single houses. To allow for such changes, there should be adequate, structure-to-structure, floor-to-ceiling heights for future servicing and, on the ground floor, sufficient height to allow for retail uses. The structure should also be robust enough to allow for future change and independent user sub-division. Architects, often as not, have little influence on basic criteria of the plan form, the particular immediate function being the basis on which the building is commissioned. Financial trading floors can be specified to have a deep plan which severely limits any alternative use. Houses and apartments often have minimal floor to ceiling heights which can prevent future office use and, on the ground

floor, conversion to retail uses. Keeping to constraints such as these would be a dramatic change in the economic and functional culture of modern space-planning and construction. If any such future-proofing were to be adopted, the building owner's financial short-term dynamic can only be modified either by a commitment of long-term ownership or, more likely, by regulation.



*17. Georgian buildings in Dundonald Street, Edinburgh. Built as houses, converted for institutional use and converted back to residential use. Four storey, ten metre deep buildings with a robust outer skin have a building form which is most adaptable.*

The cladding of the building, the Skin, is given a time frame of 20 years by Brand and 25 by Duffy. This is a surprisingly short period and is, perhaps, based on current building practice. Curtain and glazed walls, based on

window technology which relies on neoprene or butyl rubber gaskets, and mastic panel-joint sealing compounds of silicone or siliconized acrylic, will require at least major maintenance and often replacement within 25 years. This corresponds to the common investment threshold, which compromises any manufacturing incentive to improve on these lifespans. Many building facades last a great deal longer than this, but these are constructed of more durable and time-tested materials and use more permanent jointing and assembly techniques. While windows may have to be replaced, if these are openings in an otherwise long-lasting external wall, the cladding - Skin - will not need to be replaced in anything like a 20 to 25 year period. Furthermore, a regular and frequent pattern of windows in a substantial wall is not only intrinsically more energy efficient than the commonly-used glass wall,<sup>87</sup> but also allows for more flexible subdivision for changing services, space planning and functions. As there is no metric for longevity and no economic incentive for long life, this situation will persist until there is a widely accepted calculable recognition of the energy benefits of long life and regulation, or taxation to create financial or socially-responsible incentives.

Using the Duffy and Brand timespan hierarchy, and combining it with the urban design time hierarchy above, a more comprehensive descending table of relative paces of change can be set down, slowest to change first:

1. Topography, geography and landscape
2. Adjacent and locally typical urban form and relationships with new design
3. Urban plan and service infrastructure
4. Built structure
5. Building skin

6. Building services
7. Building function
8. Building space-plan
9. Furniture and equipment

Unlike Conzen, Duffy or Brand, there are no suggested time periods put on these categories. We can acknowledge that topography has formed over millennia, and landscape usually over centuries, or that urban plans often last for centuries. But these are generalities, particular circumstances can change them: urban plans can be changed with comprehensive redevelopment, disaster and war; the position of function and services and others could exchange places. Nonetheless, the principle remains: those things that tend to change most slowly are most important as they remain with us for the longest time. Those things that endure are also the framework for future changes. While we can never fully know the future, from experience and analysis we will always try to arrive at a reasonable anticipation of how what we do now will affect the future and what is likely to have the greatest influence. We also have a responsibility to the future to do our best to at least create the best opportunities for our descendants to make their lives what they wish them to be without undue hindrance from what we do now. The duty to allow our successors to manage most effectively their consumption of energy is part of this responsibility. This is not necessarily the way matters such as function or structure are normally presented to designers, but it is the business of all designers to care about the future.

## 11. From Change to Modernity

All architecture and urban design is concerned with change, but it is not just change that is important and indeed inevitable, it is the way and the pace at which things change and how those different things relate to one another that is important. While designers often become obsessed with the change with which they are unavoidably engaged, too often they only consider their own work at its moment of creation. This is sometimes just called 'modernity'. We all live in this immediate world that is modern and it is our life as we live it. Although it is ephemeral, we give it great significance and we should understand it.

### Endnotes

- 1 Peter Burke, 'Fernand Braudel', in Stuart Clark (ed.), *The Annales School: critical assessments*, Vol III, London, Routledge, 1999, 121
- 2 Giuseppe di Lampedusa, *The Leopard*, trans. Archibald Colquhoun, London, Fontana, 1963, 29
- 3 Aristotle, *Physics, Book IV*, trans. Edward Hussey, Oxford, Oxford University Press, 1983, Ch11/218b2
- 4 Lee Smolin, *Time Reborn*, London, Allen Lane, 2013, xxviii
- 5 Vladimir Bologovsky, *Conversations with Architects in the Age of Celebrity*, Berlin, DOM Publishers, 2015, 324
- 6 Idem, 103
- 7 Idem, 426
- 8 Idem, 432
- 9 <https://www.rmjm.com/can-architecture-change-world/>
- 10 <http://www.architectureforchange.com/>
- 11 Hanno Rauterberg, *Talking Architecture*, Munich, Prestel, 2008, 79
- 12 Ernst Mach, *The Science of Mechanics: A critical and Historical Account of its Development*. trans. T. J. McCormack, Chicago, Open Court, 1960 (1883), 263
- 13 John Wearden, *The Psychology of Time Perception*, London, Palgrave Macmillan, 2016, 133



- 14 Thucydides, *The Peloponnesian War*, trans. John H. Finnley Jr, New York, Modern Library, 1951, 14
- 15 Marcus Aurelius, *Meditations*, trans. Maxwell Staniforth, London, Penguin, 1964 (c 167), 50
- 16 Philip Ball, *Critical Mass: how one thing leads to another*, London, Arrow Books, 2005, 280
- 17 David Hackett Fischer, *The Great Wave: Price Revolutions and the Rhythm of History*, Oxford, Oxford University Press, 1996, 273
- 18 Roberto Mangabeira Unger and Lee Smolin, *The Singular Universe and the Reality of Time*, Cambridge, Cambridge University Press, 2015, 222
- 19 Everett M Rogers, *Diffusion of Innovations* (5th edn.), New York, Free Press, 2003 (1962), 35-7
- 20 Gabriel Tarde, *The Laws of Imitation*, trans. Elsie Clews Parsons, Chicago, University of Chicago Press 1969 (1903), 127
- 21 <https://raic.org/raic/awards-excellence-innovation-architecture>
- 22 <https://architecture2030.org/innovation-2030-the-future-is-now/>
- 23 <https://www.saltiresociety.org.uk/awards/architecture/>
- 24 <http://www.marchvalencia.com/eng/index.php/master-in-architecture-design-and-innovation-3/>
- 25 <http://www2.port.ac.uk/portsmouth-school-of-architecture/courses/innovation-through-architectural-design/>
- 26 Vladimir Belogolovsky, *Conversations with Architects in an Age of Celebrity*, Berlin, DOM Publishers, 2015, 198
- 27 Idem, 192
- 28 <http://www.aipgh.com/>
- 29 <http://www.innovation-imperative.com/>
- 30 George Basalla, *The Evolution of Technology*, Cambridge, Cambridge University Press, 1988, 92
- 31 <https://stats.oecd.org/glossary/detail.asp?ID=6865>
- 32 <https://www.bloomberg.com/graphics/2015-innovative-countries/>
- 33 Basalla, op cit, 58
- 34 Patrik Schumacher, 'Parametricism', *The Architects' Journal*, May 6th 2010, 42-45
- 35 Roger Kimball 'The death and resurrection of postmodern architecture', New York, Criterion, June 1988, 21-31
- 36 Iain Macleod, a British Member of Parliament, first used the word in 1965 in a speech to Parliament.
- 37 Summarised in Fernand Braudel, 'La Longue Duree', *Annales. Économies, Sociétés, Civilisations*. 13<sup>e</sup> année, N. 4, Strasbourg, 1958, 727-731.

- 38 David Edgerton, *The Shock of the Old: Technology and Global History since 1900*, London, Profile Books, 2006, 206-7
- 39 Steven Pinker, *The Blank Slate*, London, Penguin, 2002, 101
- 40 Benjamin Franklin, 'Advice to a Young Tradesman', *The American Instructor: or Young Man's Best Companion*. The Ninth Edition Revised and Corrected, 1748, 375
- 41 Howard Murphy, 'Australian Aboriginal Concepts of Time', in Kristen Lippincott (ed.), *The Story of Time*, London, Merrell Holberton, 2000, 264-5
- 42 Penelope J. Corfield, *Time and the Shape of History*, New Haven, Connecticut, Yale University Press, 2007, 186-7
- 43 Paul Virilio, *Open Sky*, London, Verso, 1997, 10-11
- 44 Larry Downes and Paul Nunes, *Big Bang Disruption: Strategy in the Age of Devastating Innovation*, London, Portfolio, 2014
- 45 Kasimir Malevich, 'Suprematist Manifesto' in Ulrich Conrads, *Programmes and Manifestos on 20th-Century Architecture*, Cambridge, Massachusetts, MIT Press, 1970 (first publ. in German 1964), 88
- 46 J. J. P. Oud, 'Über die zukünftige Baukunst und ihre architektonischen Möglichkeiten', *Holländische Architektur*, Muniche, Albert Langer Verlag, 1929, 13
- 47 Le Corbusier, *Towards a New Architecture*, trans. Frederick Etchells, London, The Architectural Press, 1946 (1923), 89
- 48 Edward Shils, *Tradition*, Chicago, University of Chicago Press, 1981, 327-8
- 49 Martin Albrow, *The Global Age*, Cambridge, Polity Press, 1996, 106
- 50 Robert Boyd and Peter J Richerson, *Culture and the Evolutionary Process*, Chicago, University of Chicago Press, 1985, 360
- 51 M.R.G. Conzen, 'The Needed Re-Orientation in Urban Geography (Considering the Nature of Geography)' (Paper presented to the Glasgow University Department of Geography, Staff/Student Seminar, Glasgow, 18th November, 1970, revised summer 1971), in Michael P. Conzen, *M.R.G. Conzen, Thinking About Urban Form, Papers on Urban Morphology, 1932-1998*, Bern, Peter Lang AG, 2004
- 52 Original version of paper submitted for publication in *Urban Historical Geography: Recent Progress in Britain and Germany*, Dietrich Denecke and Gareth Shaw (eds.), Cambridge, Cambridge University Press, 1988 (Published paper edited without consent of author) in Michael P. Conzen idem, 125

- 53 M. R. G. Conzen, 'Paper read before the Postgraduate Seminar at the Unit for Architectural Studies, School of Environmental Studies, University College London, April 29th 1977. Lightly revised by the author, January 1st 1996', in idem, 51
- 54 M. R. G. Conzen, 'Extract from an original research thesis completed as a part of the *Staatsexamen* at the Friedrich-Wilhelms University of Berlin (now the Humbolt University), Summer 1932', in Michael P. Conzen idem, 83
- 55 M. R. G. Conzen, 'The Needed Re-Orientation in Urban Geography (Considering the Nature of Geography). Paper presented to the Glasgow University Department of Geography, Staff/Student Seminar, Glasgow, 18th November, 1970, revised summer 1971', in Michael P. Conzen idem, 30
- 56 M. R. G. Conzen, 'Extract from an original research thesis completed as a part of the *Staatsexamen* at the Friedrich-Wilhelms University of Berlin (now the Humbolt University), Summer 1932', in Michael P. Conzen idem, 87
- 57 M. R. G. Conzen, 'Outline for Urban Geography: Morphological and Developmental Part, 1972', in Michael P. Conzen idem, 266
- 58 M. R. G. Conzen, 'Paper presented to the University of Canterbury Department of Geography, Canterbury, New Zealand, September 1968', in Michael P. Conzen idem, 152
- 59 Neil Leach, 'Swarm Urbanism', in *Architectural Design, Digital Cities Edition*, vol 79, no 4, July/August 2009, 62
- 60 M. R. G. Conzen, 'Paper read before the Postgraduate Seminar at the Unit for Architectural Studies, School of Environmental Studies, University College London, April 29th 1977. Lightly revised by the author, January 1st 1996', in Michael P. Conzen op cit, 49-50
- 61 Fernand Braudel, *On History*, trans. Sarah Matthews, Chicago, University of Chicago Press, 1980, 33
- 62 M. R. G. Conzen, 'Extract from an original research thesis completed as a part of the *Staatsexamen* at the Friedrich-Wilhelms University of Berlin (now the Humbolt University), Summer 1932', in Michael P. Conzen op cit, 83
- 63 Idem, 83
- 64 Witold Rybczynski, *Makeshift Metropolis: ideas about cities*, New York, Scribner, 2010, 136-7
- 65 M. R. G. Conzen, 'Paper read before the Postgraduate Seminar at the Unit for Architectural Studies, School of Environmental Studies, University College London, April 29th 1977. Lightly revised by the author, January 1st 1996', in Michael P. Conzen op cit, 51

- 66 Stewart Brand, *How Buildings Learn: what happens after they're built?* New York, Viking, 1994, 2
- 67 M. R. G. Conzen, 'Extract from Comparing the Medieval Urban History of Japan with That of Europe (found in ms form in Conzen's papers)', in Michael P. Conzen op cit, 42
- 68 M. R. G. Conzen, 'Outline for Urban Geography: Morphological and Developmental Part, 1972', in Michael P. Conzen idem, 267
- 69 From author's participation in RIBA Awards Group, 1998
- 70 <https://www.joh.cam.ac.uk/anti-building-future-world-cedric-price>
- 71 Juhani Pallasmaa, 'Hapticity and Time', 1999 RIBA Discourse Lecture, *The Architectural Review*, January 2000
- 72 Witold Rybczynski, *Makeshift Metropolis: ideas about cities*, New York, Scribner, 2010, 136-7
- 73 Carl Elefante, 'The Greenest Building Is...One That Is Already Built', *Forum Journal*, Summer 2007, Volume 21, No. 4, 26-37
- 74 [https://living-future.org/wp-content/uploads/2016/11/The\\_Greenest\\_Building.pdf](https://living-future.org/wp-content/uploads/2016/11/The_Greenest_Building.pdf), VI
- 75 Idem, 89
- 76 Frank Duffy, *Planning Office Space*, London, Architectural Press, 1976, 4
- 77 Frank Duffy, "Measuring Building Performance", *Facilities* 8, 1990. (5), 17
- 78 Quoted by Stewart Brand, *How Buildings Learn: what happens after they're built?* New York, Viking, 1994, 17
- 79 Idem, 13
- 80 Quoted by Stewart Brand, idem, 12
- 81 Idem, 54-5
- 82 R. V. O'Neill, D. L. DeAngelis, J. B Wade, T. F. H. Allen, *A Hierarchical Concept of Ecosystems*, Princeton, Princeton University Press, 1986, 98
- 83 Brand op cit, 17-18
- 84 Idem, 210
- 85 Bernard Leupen, *Time-based Architecture: architecture able to withstand changes through time*, Amsterdam, B.V. Uitgeverij De Bataafsche Leeuw, 2004
- 86 Brand op cit, 2
- 87 Research by Atelier 10, *A Study of the Energy Performance of Two Buildings with Lightweight and Heavyweight Construction*, [https://adamarchitecture.com/wp-content/uploads/2019/04/ADAM\\_Atelier10-EnvmntlAssmnt-ExecSummary\\_02\\_A4.pdf](https://adamarchitecture.com/wp-content/uploads/2019/04/ADAM_Atelier10-EnvmntlAssmnt-ExecSummary_02_A4.pdf)

## IV

# MODERNITY

Modernity is, first and foremost, concerned with the passage of time. Modernity comes in as many versions as there are thinkers or journalists, yet all its definitions point, in one way or another, to the passage of time.<sup>1</sup>

Bruno Latour, *We Have Never Been Modern*, 1991

### 1. The Significance of Modernity in Contemporary Architecture

From the early twentieth century, the most significant issue in architectural theory has been the pursuit of modernity. Modernity in the twentieth century moved from being a description of the current condition to being an objective in its own right, sometimes described as the 'modern project'.<sup>2</sup>



1. *Tugendhat House, Brno, Czech Republic, Mies van der Rohe, 1930. In the early twentieth century, radical architects sought to define their work as modern with deliberate difference to what had gone before.*

Early twentieth century references to modernity in architecture lament the absence of modernity in current architecture in comparison with the modernity of society as a whole. In 1923, Le Corbusier said that, 'There reigns a great disagreement between the modern state of mind, which is an admonition to us, and the stifling accumulation of age-long detritus.'<sup>3</sup> In the same year, Walter Gropius, setting out the *Principles of Bauhaus Production*, declared that, 'Modern man, who no longer dresses in historical garments but wears modern clothes, also needs a modern home appropriate to him and his time'.<sup>4</sup> For Corbusier and Gropius, the new architecture of the time did not express modern life and they wanted an architecture that would do so. In 1928, the La Sarraz Declaration of the *Congrès Internationaux d'Architecture Moderne (CIAM)* declared that the architecture they promoted would be the architecture that expressed modern society with, 'Modern architects having the firm intention of working according to new principles ...'<sup>5</sup> Three years later, Frank Lloyd Wright would define what he believed would constitute 'true modern architecture' (my emphasis), thereby stating that there was another architecture that, to him, did not represent modernity.<sup>6</sup> In 1932, Henry-Russell Hitchcock and Philip Johnson selected a set of recent buildings for an exhibition entitled 'The International Style' which, according to Alfred J. Barr Jr. in his preface to the book of the exhibition, demonstrated that 'there exists today a modern style as original, as consistent, as logical, and as widely distributed as any in the past.' By 1948, Henry-Russell Hitchcock, after a world tour, could say that, 'we could now consider International Style to be synonymous with the phrase "Modern Architecture".'<sup>7</sup> From this time, the various names for the new architecture: avant-garde, machine age, international, modern movement and modernist, could be summarised as just 'modern.' Modernity was not just a

moment in time, but also a particular architectural and artistic style and philosophy. By conflating present time with the description of a particular style, it was possible to claim that any other type of architecture of the same period would fail to represent or be truthful to the present and so should be avoided. This idea persists to the present day.

Post-Modernism seemed to threaten this style in the 1980s. It also created a semantic muddle. Post-Modern architecture was supposed to replace ‘modern’ architecture but this could also be described as ‘modern architecture’. The muddle is to be found in the debate at the time. The future star architect Zaha Hadid defended ‘modern’ architecture by apparently laying claim to the whole phenomenon of modernity: ‘We, the authors of architecture, have to take on the task of reinvigorating Modernity.’<sup>8</sup>

As Post-Modernism fell out of fashion and became just another past modernity, architects could return to the simple description of their work as ‘modern’. In 1993, the French star architect, Jean Nouvel, said that, ‘A modern architect ... attempts to give a whole generation the benefit of his accruing knowledge. The evolution of modernity is in the architect’s genes.’<sup>9</sup> In the last two decades, Charles Gwathmey<sup>10</sup> and Annabelle Selldorf<sup>11</sup> could simply declare that, ‘I am a Modern architect,’ and in 2016, David Adjaye would describe his National Museum of African American History and Culture as, ‘a very modern building’.<sup>12</sup>

Architectural firms often wish to make their modernity explicit. In London there is a firm called *Modern Architectural Projects*, and in the Loire Valley an architects’ studio has the name, *Agence Architecture Moderne*. Similar intentions are expressed in architects’ mission

statements. *AR Design Studio* in southern England describes itself as ‘contemporary modern architects’ and the firm *Modative* calls itself ‘a Los Angeles-based modern architecture firm.’ In Leipzig, *Flow Studio* is defined as ‘ein modernes Architekturbüro und Designlabor’ and *Estudio Dream* in Valencia identifies itself as ‘La Base de la Arquitectura Moderna.’



2. *Zlatý Anděl, Prague, Jean Nouvel, 2001. Jean Nouvel believes ‘modernity is in the architect’s genes’.*

These sentiments would be familiar to anyone who has had an architectural training or engaged in architectural debate in the last century. It is, at its core, an attitude to how society should relate to the passage of time and is central to current architectural theory and practice. An understanding of modernity would give a better understanding of one of the key principles that underlies contemporary architectural thought.

## 2. The Nature of Modernity

To be modern is to be in the present. It may be one aspect of the present as a contrary to another, it may be the



present with an eye to the future, it may be a present moment incorporating the immediate past and anticipating the immediate future, it may be what it is thought the present should be, but in all cases it is still in the present. Describing modernity as the present excludes past modernities.

As we have seen above, this has been confused by conflating one particular viewpoint or aesthetic with being modern. The confusion has been compounded by including proxy words such as 'contemporary', 'of our time' and 'progressive' to mean the same thing. Whatever a particular outlook or aesthetic is called, when it ceases to be current it must become a modernity that has passed in time. Early modernist rhetoric and Post-Modernism implied that there was a particular historical era and way of thinking that could be called 'modern' and divergent, but contemporary ways of thinking were something different and so not modern. This we can call *modernity-as-idea*. It cannot make *modernity-as-now* into the past, it could only mean that there is a new *modernity-as-now* that replaces it. As a time-based event, Post-Modernity was modern, the modern it supplanted is no longer modern. For this part of the discussion we will set aside the appropriation of the word 'modernity' to mean *modernity-as-idea*. Modernity will be a time-based phenomenon and must include the present.

To identify modernity with the time-based present is to relate it to one of the fundamental aspects of the understanding of time. The present is what we experience at this moment but it has long been recognised that it is only a vanishing instant between a past that cannot be changed, and a future that has not happened. Aristotle believed that only the past and future could be described as time, 'the "now" is a boundary, it is not time.'<sup>13</sup> St.

Augustine identifies the present as an infinitesimal moment, 'If any fraction of time be conceived that cannot now be divided, even into the most minute momentary point, this alone is what we may call time present. But this flies so rapidly from future to past that it cannot be extended by any delay. For if it is extended, it is then divided into past and future. But the present has no extension whatever.'<sup>14</sup>

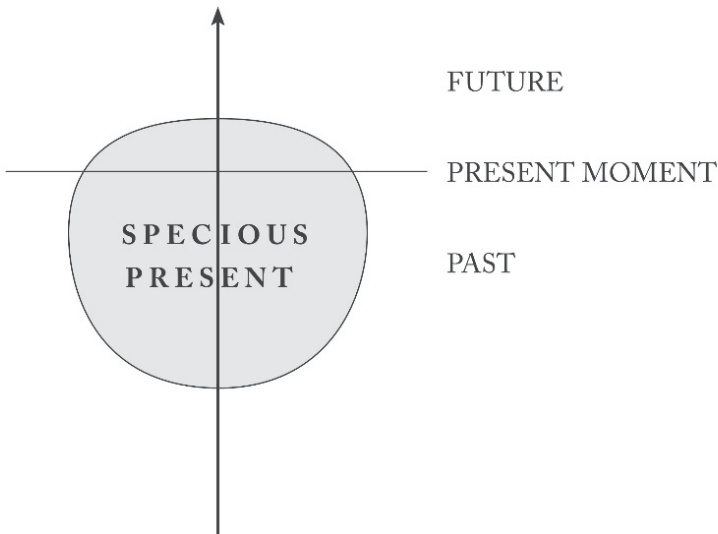
For all practical purposes, however, the present is an identifiable experience and, as a phenomenon appropriate for everyday action, has to incorporate a part of the past and a part of the future. To undertake any action, it is necessary to remember the immediate past that brought you to it and anticipate the likely outcome. This timespan was called 'the specious present' by the American philosopher, William James, in 1890: 'the practically cognized present is no knife-edge, but a saddle-back, with a certain breadth of its own on which we sit perched, and from which we look in two directions into time. The unit of composition of our perception of time is a duration, with a bow and a stern, as it were - a rearward and a forward-looking end.'<sup>15</sup> This is a practical, common-sense or psychological view of the present, not analytical. It is often explained by the perception of music, such as this description by the American philosopher, Jenann Ismael: 'We don't just experience instantaneous parts of notes and piece them together in memory. When I hear one note, the preceding note still lingers in experience and the experience carries an expectation about what will follow. The content of the experience stretches over a temporal interval, and it is this that allows us to hear melody as descending and to experience the quickness of a tempo'.<sup>16</sup> Philosophers such as D. H. Mellor, on the other hand, challenge the very concept of the specious present: 'The

question is, how much: how long must the specious present be - a minute, a second, a millisecond? - and what marks it off from the past and future proper? But in fact, the question and the doctrine are what is specious, not the present. It is present events that extend into the past and the future, not the present itself.<sup>17</sup>

For the purposes of this discussion, the distinction matters little but the length of the 'specious present' or the 'present event' is significant. William James believed that the specious present lasted about twelve seconds or less than a minute, in much the same way that recognising an immediately-occurring note as part of a tune relies upon recall of the preceding note and anticipation of the next. We can, however, extend the principle into common usage: the 'present Syrian civil war' has had a span of ten years at the time of writing and is not over; the 'present rain shower' outside my window began one minute ago and is not over. The time envelope of the specious present (and I will continue to call it by this name as a principle; 'present event' implies a case-specific condition) is dependent on the relevant event or nature of the action taking place and, as the event or action is not complete, includes the future.

Modernity as experienced must include the present and, as it is more than a moment in time, it will include the extended specious present. It is a phenomenon, 'a fact or situation that is observed to exist or happen'<sup>18</sup> and so an event as well as an action. The shape of modernity will be similar to that of the extended specious present: it will include whatever part of the past is seen to be part of the event or action, will include the present instant and some part of the future. It is, however, unlike both the essential present, which is no more than a moment, as well as the specious present, whereby the present is extended to encompass a

specific event or action; it is neither a moment nor a single event or action, but a collection of events and actions. There is, consequently, much to debate about modernity. Does it include all events or actions in its time frame or only some of them? If so, which? How far back can relevant events or actions go and still be included? How far into the future can it be realistically projected?



3. *The specious present. While the present moment is an instant between the past and the future, to understand anything in the present we must include our memory of what went before and some anticipation of what is to come.*

Before these are addressed, it would be helpful to look at how the current idea of modernity came about and its social, political and artistic significance. This will provide some guidance as to how the various current interpretations of modernity have arisen.

### 3. The History of Modernity

#### *Antiquity, the Middle Ages and the Renaissance*

The Latin word *modernus*, meaning 'of today' as opposed to 'of yesterday' - what is over and never to be repeated - first came into use in the fifth century CE. This was the time of the gradual dissolution of the Roman Empire by which time Christianity had become the state religion. With Christianity, the cyclical concept of history ended. History was seen to be moving in accordance with the Book of Revelation through four kingdoms to the rule of the anti-Christ and the second coming of Christ, when all time would end. In the early and high Middle Ages, modernity would be no more than one moment of present time on a pre-ordained journey to the end of time.

This changed with humanism and the Renaissance. The future could be expected to deliver more than spiritual salvation. In 1306, Fra Giordano of Pisa could preach that 'not all the arts have been found; we shall never see an end of finding them ... and new ones are being found all the time.'<sup>19</sup> This spirit of enquiry was turned to the rediscovery of ancient texts and then the arts and architecture of ancient Rome. From the recovery of an apparently superior antiquity arose the idea of a re-born and superior modernity that saw the immediate past as the age of ignorance that lay between the present and antiquity - the *Middle Ages*. The self-consciousness of intellectual enquiry, exploration and discovery led to social mobility, where individuals could be heroes and as individuals rise above class, clan or feudal allegiance. In the Renaissance, the modern individual would soon seek personal salvation in Protestantism and, in England, political independence in regicide.



4. *Ospedale degli Innocenti, Florence, Italy, Filippo Brunelleschi, started 1419. In the renaissance modernity was based on the rediscovery of a distant past thought to be superior to the present.*

### ***The Enlightenment***

Out of the ferment of religious dissent, civil war, political turmoil and scientific discovery in seventeenth-century England, rational enquiry would triumph over the authority of the ancient philosophers, and established hierarchies would be overturned, laying the foundations of modernity as we understand it today.

In 1620, the courtier and philosopher, Francis Bacon, wrote that, 'men have been kept back as by a kind of enchantment from progress in the sciences by reverence for antiquity'<sup>20</sup> and that 'new discoveries must be sought from the light of nature, not fetched back out of the darkness of antiquity'<sup>21</sup> and urged his contemporaries to 'begin anew from the very foundations.'<sup>22</sup> Some years later,

this idea would come into conflict with those who believed in the authority of Greek and Roman antiquity. In 1704, Jonathan Swift, social commentator and pamphleteer, published a satire, *An Account of the Battel Between Ancient and Modern Books in St James's Library*.<sup>23</sup> He parodied the debate, known as the 'Quarrel of the Ancients and Moderns', begun in France and briefly joined in England, that set the authority of the ancient authors against the new scientific discoveries and rational philosophy that was emerging at the time. Chief protagonist of the 'moderns', Charles Perrault, summarised their argument with the couplet:

La docte Antiquité dans toute sa durée  
A l'égal de nos jours ne fut point éclairée.<sup>24</sup>

(Learned Antiquity, through all its extent,  
Was never enlightened to equal our times.)

The philosophy of the 'moderns' came to be known as this same '*éclairée*', or 'Enlightenment'. As the eighteenth century progressed, the ideas of the Enlightenment, which were in concert with contemporary inventions, improvements in industry and global exploration, became more influential. The Marquis de Condorcet said in 1795 that there was great optimism for a world of 'free men who know no other master but their reason.'<sup>25</sup> This would, according to André Morellet, ensure that 'man advances, though slowly, towards light and happiness.'<sup>26</sup> This progress would be the outcome of the sciences, the most rational of the arts. French intellectuals, such as Mercier de la Rivière, would ask rhetorically, 'where can the perfectibility of man stop, armed with geometry and the mechanical arts and chemistry?'<sup>27</sup>

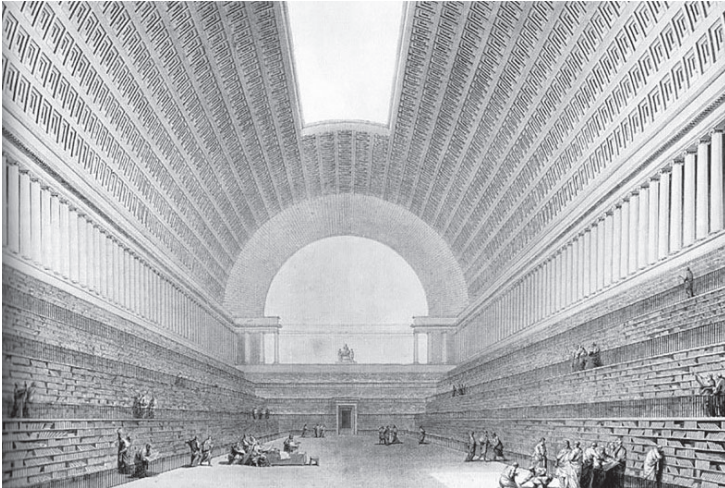
This optimism was more than an observation of events as they were unfolding. The greatest of the Enlightenment philosophers, the Prussian, Immanuel Kant, believed that 'individual men and even entire nations little imagine that, while they are pursuing their own ends, each in his own way and often in opposition to others, they are unwittingly guided in their advance along a course intended by nature.'<sup>28</sup> In England, Joseph Priestley, political theorist and clergyman, could believe that this law of nature would take us to 'the end [that] will be glorious and paradisiacal beyond what our imaginations can now conceive.'<sup>29</sup>

Modernity had become more than the identification of a present time that was different from a past time; it had become an idea or state of mind that might not be shared with other contemporaries, that is, *modernity-as-idea*. Furthermore, those who adhered to this idea believed that the future would demonstrate that their view of the world was correct.

Belief in the inevitability of this modernisation was such that the forcible removal of an impediment to its progress would be justified as conformity to the laws of nature or the advancement of mankind. To Enlightenment thinkers, the enemy of modernity and progress was tradition. A follower of the Enlightenment, a *philosophe*, was defined in the French *Encyclopedie* (a compendium of knowledge begun in 1751) as a person who tramples 'on prejudice, tradition, universal consent, authority.'<sup>30</sup> In 1753, Baron d'Holbach, one such *philosophe*, dismissed 'inconceivable theology, ridiculous fables, impenetrable mysteries, puerile ceremonies,' and demanded that 'the vain chimeras of men be removed,' so that 'reasonable opinions will soon come of themselves, into those heads which were thought to be forever destined to error.'<sup>31</sup> And it was in France,



where a waning monarchy presided over an ossified social hierarchy, that a revolution fuelled by Enlightenment ideals led to the final decision to *cut off* the heads of those who were ‘destined to error’. In the terror that followed the Revolution, modernity reached its chilling apogee with the words of Louis Antoine de Saint-Just, whose censure alone could mean execution: ‘in a time of innovation, everything that is not new is pernicious.’<sup>32</sup> Such sentiments would echo down the next two centuries with deadly effect in Soviet collectivisation, the Chinese Cultural Revolution and, in Cambodia, Year Zero of Pol Pot.



5. *National Library Project, Étienne-Louis Boulée, 1785. The French Revolution was part of the eighteenth-century Enlightenment and a search for rationality. Dramatic architectural gestures were proposed which looked back to the ancient Roman republic.*

### ***Politics, Science and the Arts in the Nineteenth Century***

In the early nineteenth century, the German philosopher, Georg Hegel, would see that modernity, ‘our time,’ had become the defining and positive character of the age, not

just as ‘a birth and transition to a new period,’ but as ‘the break of day, that like lightning, all at once reveals the edifice of the new world.’<sup>33</sup> As the Hungarian philosopher Agnes Heller tells us, ‘Hegel’s world history is the genesis of modernity. Modernity appears as the consummation of world history.’<sup>34</sup>

Two influential nineteenth-century figures who established the intellectual framework for this new modern period lived in Britain: the German philosopher, economic historian and revolutionary theorist, Karl Marx, and the English naturalist, Charles Darwin.

Marx saw society as a reflection of its technological development: ‘the mode of production of material life conditions the social, political and intellectual life process in general.’<sup>35</sup> The history of this technological development would progress in a sequence of stages deduced from Marx’s own economic theory. The whole of mankind should move by way of socialism to its final state of perfection - communism. The revolutions that would bring us to this state would be brought about by the bourgeoisie for whom, ‘All fixed, fast-frozen relations, with their train of ancient and venerable prejudices and opinions, are swept away, all new-formed ones become antiquated before they can ossify. All that is solid melts into air, all that is holy is profaned, and man is at last compelled to face with sober senses his real conditions of life, and his relations with his kind.’<sup>36</sup> These revolutions required a surrender to modernity and the elimination of tradition: ‘The social revolution of the nineteenth century cannot draw its poetry from the past, but only from the future.’<sup>37</sup> Marx was the intellectual inheritor of the Enlightenment and, as the American philosopher, Marshall Berman, says, the

*Manifesto of the Communist Party* 'is the first great modernist work of art.'<sup>38</sup>

Charles Darwin had no political or social agenda. He was instead the perfect Enlightenment man of science who sought Kant's 'hidden plan of nature' with a dedication to science and rational analysis. He set out to do no more than explain the process of natural selection and the way in which 'elaborately constructed forms, so different from each other, and dependent on each other in so complex a manner, have all been produced by laws acting around us.'<sup>39</sup> When he published his book, *On the Origin of Species*, in 1859, however, its conclusions seemed to give a receptive public a scientific basis for the idea that history was indeed moving inexorably forward to create an ever-improving world. Although Darwin saw no end-purpose in the process of evolution, at times his words seemed to say otherwise: 'we may feel certain that the ordinary succession by generation has never once been broken, and that no cataclysm has desolated the whole world. Hence we may look with some confidence to a secure future of equally appreciable length. And as natural selection works solely by and for the good of each being, all corporeal and mental environments will tend to progress towards perfection.'<sup>40</sup>

France remained politically unstable for much of the nineteenth century while, at the same time, Paris became established as the European and American centre of Fine Art. Political turmoil drew together socialism and the arts and, in 1845, Gabriele-Désiré Laverdante published *De la mission de l'arte et du rôle des artistes*,<sup>41</sup> in which he placed art at the vanguard of change. 'Art, the expression of society, manifests, in its highest soaring, the most advanced social tendencies: it is the forerunner and the revealer. Therefore, to know whether art worthily fulfils its proper mission as

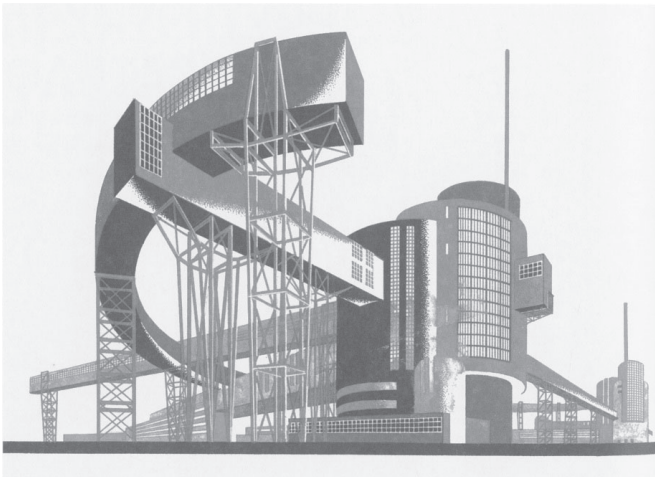
initiator, whether the artist is truly of the avant-garde, one must know where Humanity is going, know what the destiny of the human race is.<sup>42</sup> This vanguard is now always given its French form, the *avant garde*, a Napoleonic military expression for the advanced guard that harried the enemy before the arrival of the main army.

The artistic expression of the Enlightenment attributes of modernity and progress were taken to new extremes. The founding theorist of the new modernity in the arts was the French poet, Charles Baudelaire, who in 1859 would find modernity in 'the transitory, the fugitive, the contingent, which makes up one half of art, the other being the eternal and the immutable.' Most significantly, he saw 'this transitory fugitive element, which is constantly changing,' as something valuable that 'must not be despised or neglected.'<sup>43</sup>

Tensions between Prussia and France led to war and Prussia, joined by other German states, laid siege to Paris in 1870. The following year, in the chaos that followed the end of hostilities, the first socialist commune was established in the city. It was savagely suppressed. In the ferment of the time, the much-admired and precocious poet, Arthur Rimbaud, wrote to his friend Paul Demeny that 'the poet would define... the universal soul' and 'be a multiplier of progress,' and that 'poetry will not lend its rhythm to action, it will be in advance,' (*en avant*). Criticising Baudelaire for timidity, he declared that 'inventions of the unknown call for new forms.'<sup>44</sup> Two years later, in his poem 'Une Saison en Enfer' (A Season in Hell), he would see in 'Science! The new nobility! Progress' and announce that 'it is necessary to be absolutely modern.'<sup>45</sup> This new modernity amongst the artistic avant garde was bohemian and revolutionary. It represented more than Enlightenment progress based on the overturning of

tradition, it would be based on the complete destruction of the past for a better future.

While Marxism and the avant garde were revolutionary movements in the nineteenth century, and so were by no means universally accepted, they shared the view of history that had become quite general by the end of the century. The German historian, Leopold von Ranke, would say in 1883, 'Insofar as we can follow history, unconditional progress, a most definite upward movement, ... in which retrogression will hardly ever be possible unless there occurs an immense upheaval.'<sup>46</sup> This principle of history was seen as a universal truth such that, as the American historian Henry Adams would say in 1894, 'Any science of history must be absolute like other sciences and must fix with mathematical certainty the path which human society has got to follow.'<sup>47</sup>



6. *Architectural fantasy based on hammer and sickle, from 101 Fantasies, 1933, Iacov Chernikhov. Russian constructivist architecture. In the early years the revolution in Russia was expressed with revolutionary architecture.*



7. *Hôtel du Collectionneur, Exposition Internationale des arts Décoratifs et Industriels Modernes, Paris, Pierre Patout, 1925. The 1925 Paris Exhibition introduced a new architecture originally known as 'Moderne' but now called 'Art Deco'.*



8. *Baker House, MIT, Cambridge, Massachusetts, Alvar Aalto, 1948.*

*By the middle of the twentieth century versions of Modernism had become common throughout the world.*



### *The Twentieth Century*

From Hegel and the Enlightenment, the idea of modernity had been linked to the idea of progress which, in the twentieth century, became a powerful political objective. The act of becoming modern - modernisation - was the means by which states would progress. Modernity was co-extensive with success and, from all political perspectives, states sought to modernise. In the early twentieth century, the dominant political philosophy in the USA was 'progressivism', a 'political movement that addresses ideas, impulses, and issues stemming from modernization of American society.'<sup>48</sup> The 14th Congress of the All-Union Communist Party of the Soviet Union in 1925 resolved, 'to transform our country from an agrarian into an industrial one, capable by its own efforts of producing the necessary means of modernisation'<sup>49</sup> In 1963, Zhou Enlai, Premier of the People's Republic of China, introduced the 'Four Modernizations' in agriculture, industry, defence and science and technology.<sup>50</sup> In a competitive world economy, all nations sought to create a modern industrial base and, each in its own way, wanted to be a 'modern' state.

A modern state would mean something different according to the objectives of the relevant political system. In 1977, the eminent American sociologist, Talcott Parsons, believed 'that the United States is a model for other countries in structural innovations central to modern societal development.'<sup>51</sup> In 2007, President Hu Jintao set out China's objective to be 'oriented towards modernization, the world and the future.'<sup>52</sup>

In the arts and architecture, similar differences of meaning occur. In 1928, the Russian architect, M. J. Ginzburg, wrote enthusiastically about 'the emergence of a new group of

clients: the working masses, free of prejudices as far as taste is concerned, and not bound by tradition' believing that, 'these millions of workers must unquestionably be considered supporters of modern architecture.'<sup>53</sup> The world Ginzburg is describing is quite different to that of the French Third Republic when it staged the 1925 Paris *Exposition Internationale des Arts Décoratifs et Industriels Modernes*, specifying 'clearly modern tendencies' as part of the entry conditions.<sup>54</sup> And this is just as different to the 'Modern Architecture' Henry Russell-Hitchcock observed on his foreign tour in 1948.<sup>55</sup>

It is clear that today when the words 'modernity', its adjective 'modern' or its active verb 'modernise' are used, they can have quite different meanings and outcomes according to context. The history of the idea of modernity shows how it has been variously conceived and has had diverse outcomes at different periods; it is differently framed in accordance with its own position in time - it can relate to the present and future and now, with the advent of Post-Modernity, to the past; it also can be neutral, progressive, revolutionary and even oppressive. For all this, in normal usage the adjective 'modern' is almost always unqualified. When, in the current period, modernisation and modernity are key political and social ideals on a worldwide basis, it is important to understand and differentiate the range of meanings that have been given to phenomenon of 'modernity.'

## 4. Meanings of Modernity

### *Simple Modernity*

According to both the Oxford English Dictionary and Webster's Dictionary, the prime definition of 'modern' is relating to, or pertaining to, present and recent time, as



opposed to the remote past, not ancient. The prime meaning closely follows its etymology: Late Latin *modernus* from the Latin *modus*, just now.

This is 'Simple Modernity', the common use of the word that is nothing more than all those things that are found in the everyday world. The collection of things that exist at the present time is modernity-as-now, but it is more than the instant passing from the past to the future. Simple Modernity will include current actions and events that have a duration and are expected to continue into the immediate future. Simple Modernity is, therefore, a version of the extended specious present or a bundle comprising all current events.



9. *New House, Hampshire, England, George Saumarez Smith 2008. Modern Classical Building. Any building constructed today will be modern by the modern intention to build and the modern means of production, regardless of appearance.*

There is no qualification as to what is included in Simple Modernity, it is as the present is found. On this basis, for example, the present reproduction of anything from the past is modern. If an architect wants to create an exact copy of a building by the seventeenth-century architect Bernini, he or she would only do this because the client or architect thought of it in the present – that is the modern – era. It would be a modern idea. They would not have even considered doing so two centuries ago; Bernini's work was not in fashion. The designer would travel to the original building in an available vehicle – that is a modern vehicle – or refer to a modern printed book to make the copy. The drawings for the building would be prepared with modern drafting techniques and the construction would be undertaken by a contemporary construction firm using modern equipment. The work would be paid for using modern currency and would be occupied by modern people with their particular view of the world, and so on.

Whatever the things or activities might be that occur in the same time period, which is in any period designated as 'simply modern', they will be 'contemporary'. This is the proper meaning of contemporary, however strange the combinations of things or actions might be. As the American sociologist, Craig Calhoun, tells us, 'modernity is not a simple set of constants nor even of linear trends. If it is a single epoch, it is one characterized by widely diverse but equally modern projects.'<sup>56</sup>

Simple Modernity is the theoretically full description (it is too great ever to be complete) of a particular moment in, or period of, time. Without any theory or objective beyond the description, this will be the authentic description of the simple modern condition. If society is to be discussed or analysed objectively in sociology, anthropology, economics,

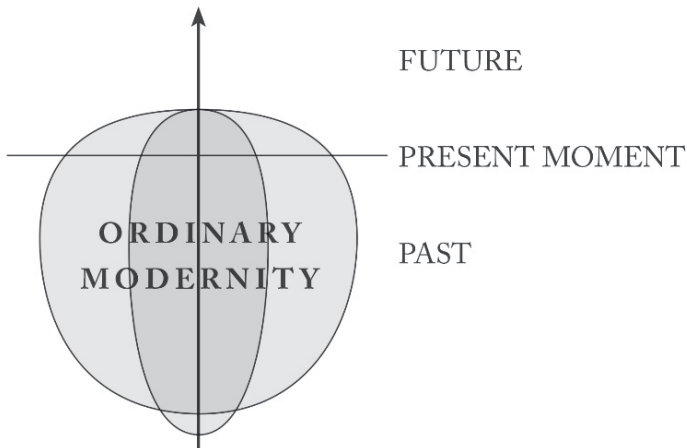
politics or aesthetics, it would have to be based on the condition of its Simple Modernity. Every action of Simple Modernity is particular to the present or recent time. As the philosopher Daniel Dennett says, 'We are stuck, by our actuality - and finitude, in a negligible corner of the total space of possibilities.'<sup>57</sup>

### *Ordinary Modernity*

Webster's Dictionary has a further meaning for modern: 'characteristic of present and recent time; contemporary; not antiquated or obsolete'. This is not the same as Simple Modernity. It is more than a description of all the present objects or actions that might affect the modern individual or group, it is a selection of those things that are characteristic of a modern period. It is not the specious present, but it is a segment of the specious present.

To turn from Simple Modernity, which is a version of the specious present, to Ordinary Modernity requires a judgement of all contemporary actions and objects to ascertain if they are indeed 'characteristic' of the relevant period. It is the beginning of the concept of modernity-as-idea and much will depend on the criteria used for this judgement. One way of setting the criteria is to use the term proposed by the geographer Peter J. Taylor: 'ordinariness'.<sup>58</sup> Taylor calls everyday modernity 'Ordinary Modernity' - a modernity free from top-down impositions of how society ought to develop, a modernity as it is found rather than how it is theorised. His use of the word 'ordinary' deliberately carries with it the connotations of the middle-of-the-road or the man-in-the-street. Indeed, Taylor summarises its social framework as 'comfort' and locates its centre as the suburb. He finds Ordinary Modernity in the novel (a noun derived from the adjective for new), where a

new art form could fictionalise a medieval monk for an Enlightenment audience. It is mirrored by the popular film that was also a new art form that could depict the American Civil War to a twentieth century audience. It is found in the suburb, not a new urban form in itself – it was described in Britain by Engels in 1844 – but as a fundamental characteristic of ordinary life today.



10. *Ordinary Modernity.* Ordinary modernity includes those aspects of modern life that are typical, regardless of their origins. In doing so, the extra-ordinary would be excluded - those things that exist but are not typical of everyday life.

According to Taylor, Ordinary Modernity is not found in elite or minority activities, these are not ordinary but, literally, extra-ordinary. He chooses the work of modernist architects as an example of what is not included, contrasting their deliberately provocative work with the mundane nature of suburbia. If, however, we limit the idea of 'ordinariness' to the output of a narrow group of modernist architects, it could be legitimate to call the radical nature of modernist architecture 'ordinary'. If, on the other hand, as Taylor

seems to imply, we view ordinariness as what is most typical and general in a broader view of society, then modernist architecture would be excluded. Similarly excluded would be experimental art or any new manifestations of political extremism and it is a characteristic of these elite or minority groups that they lay claim to their particular interpretation of modernity. At the heart of the idea of Ordinary Modernity, however, is a principle that excludes these minority positions: Ordinary Modernity is the collection of things and actions that are typical for everyday life as lived by the ordinary majority of the population and, quite specifically, it is modernity as *found* and free from proscription, censure or theory. It is what the French philosopher and historian, Michel de Certeau, memorably calls, ‘the oceanic rumble of the ordinary’.<sup>59</sup>



*11. Suburb. Living in a suburb is typical condition that can be described as ‘Ordinary Modernity’; it is typical but is a continuation of an early nineteenth century phenomenon.*

As Ordinary Modernity can contain anything that co-exists regardless of its age, origins or function, it has important characteristics that distinguish it from other categories of modernity. In the condition of Ordinary Modernity, the unprecedented can co-exist with the long-established, the radical with the traditional, and the new arrival with the indigenous.

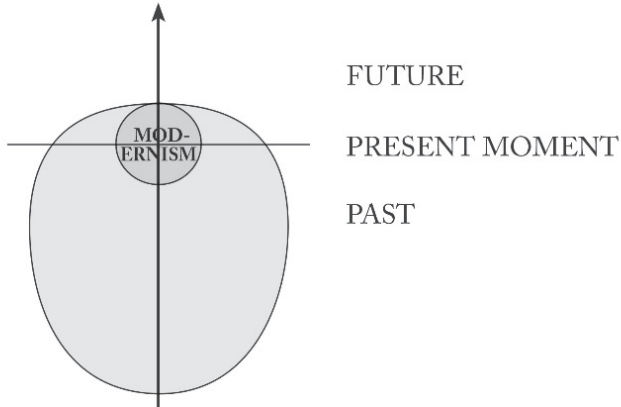
Ordinary Modernity will encompass the modern condition as it is found, as opposed to the way in which it is promoted. This is a step away from the Enlightenment presentation of modernity as a selected series of phenomena, the continuity of which is essential to maintain a proper direction for history. Ordinary Modernity is how most people experience modernity in their everyday lives, in all its diversity.

### ***Modernism***

The Oxford English Dictionary gives another meaning for 'modern': 'characterized by, or using the most up-to-date techniques, ideas, or equipment.' This goes one step further than Webster's more open definition of modern as 'characteristic ... of present time'. What is only a characteristic action or object may not be the most up-to-date. Defining modernity only by the collection of things that have come about most recently must necessarily exclude those things that survive from the past. This is Modernism and is the apogee of modernity-as-idea.

Modernism is the direct inheritor of Francis Bacon's encouragement to 'think anew', the anti-traditional mission of the Enlightenment, and the suppression of history by the avant garde. Modernism is another segment of the

extended specious present, but with a different geometry to that of Ordinary Modernity.



*12. Modernism. Modernism excludes much of what is current by defining modernity as only those things that are exclusive the present era.*



*13. Housing, Grand Union Walk, Camden, London, Nicholas Grimshaw, 1988. High-tech architecture takes its aesthetic modernity from technical, or instrumental, modernity.*



Behind Modernism is Georg Hegel's historical theory of historicism and the *Zeitgeist* or 'spirit of the age', described in Chapter II. The modern German philosopher, Theodor Adorno, identifies this as 'the historical moment' which for art is the definition of 'authentic works' which 'surrender themselves to the historical substance of their age without reservation.'<sup>60</sup> In an attempt to discover the *Zeitgeist* of the modern age, modernists look to those things that can only have existed at the present moment, those things that are most up-to-date. These things, once identified, both define modernity and are the only things that are authentic to their time; they are thereby 'of their time'. The only things from the past that would qualify for inclusion in the modernist world-view are those which are, as the German twentieth-century philosopher Walter Benjamin puts it, 'recognised by the present as one of its own concerns.'<sup>61</sup>

The modernist search for the up-to-date and new has two main sources: scientific advance and artistic creativity, or *instrumental* and *aesthetic* modernity.

Instrumental modernity, taken from the latest scientific or technological innovations, is a version of the Marxist theory of society defined by the level of development of its industry and technology. In a time of rapid technological development, what is up-to-date will also be naturally associated with the latest scientific discoveries. Agnes Heller points out, 'in technology the last, the most recent, is always believed to be the best. The product of yesterday quickly becomes outdated and is soon destined for either the garbage bin or the museum.'<sup>62</sup> This will reinforce the sense of distance from the past, as the sociologist, Barbara Adam, says, 'one of the key features of contemporary, science-based existence is its unknowability from the location of the past.'<sup>63</sup> With modernity based on the latest



inventions, Theodor Adorno believes that, 'It is impossible to consider the emphatic *aesthetic* idea of the new apart from the *industrial* procedures that increasingly dominate the material production of society'(my emphasis).<sup>64</sup> Aesthetic modernity and instrumental modernity are linked in Modernism and the same vocabulary can be used for both. For example, innovation in science and technology, an essential characteristic for their success in a capitalist economy, is linked to the arts by calling novelty and the avant garde 'innovative', thereby implying that they too are essential. As the French poet and philosopher, Paul Valéry, declared in 1928, 'We must expect great innovations to transform the entire technique of the arts, thereby affecting artistic invention itself and perhaps even bring about an amazing change in our very notion of art.'<sup>65</sup> Innovation is discussed in more detail in Chapter V.



14. Seattle Public Library, Seattle, Washington State, USA, Rem Koolhaas, 2004. The idea of newness and difference carries with it a sense of exhilaration.

A distinctive characteristic of Modernism is the moral certainty and euphoria it engenders in those who identify with it. The German philosopher and sociologist, Jürgen Habermas, considers that, 'The authority of the new is that of the historically inevitable,'<sup>66</sup> and in the 1930s, the architect, Amyas Connell, believed that Modernism represented the 'inevitable progress of modern civilization.'<sup>67</sup>

There is a thrill in a modernity that the Mexican poet, Octavio Paz, describes as, 'cut off from the past and continually hurtling forward at such a dizzy pace that it cannot take root, that it merely survives from one day to the next.'<sup>68</sup> In 1982, the American Marxist philosopher, Marshall Berman, was also exhilarated by the experience.

To be modern is to find ourselves in an environment that promises us adventure, power, joy, growth, transformation of ourselves and the world - and, at the same time, that threatens to destroy everything we have, everything we know, everything we are. Modern environments and experiences cut across all boundaries of geography and ethnicity, of class and nationality, of religion and ideology: in this sense, modernity can be said to unite all mankind. But it is a paradoxical unity, a unity of disunity: it pours us all into a maelstrom of perpetual disintegration and renewal, of struggle and contradiction, of ambiguity and anguish. To be modern is to be part of a universe in which, as Marx said, 'all that is solid melts into air'.<sup>69</sup>

This is more recently stated by the Dutch architect, Rem Koolhaas: 'Our old ideas about space have exploded. The past three decades have produced more change in more cultures than any other time in history. Radically accelerated growth, deregulation, and globalization have redrawn our familiar maps and reset the parameters: borders are inscribed and permeated, control zones

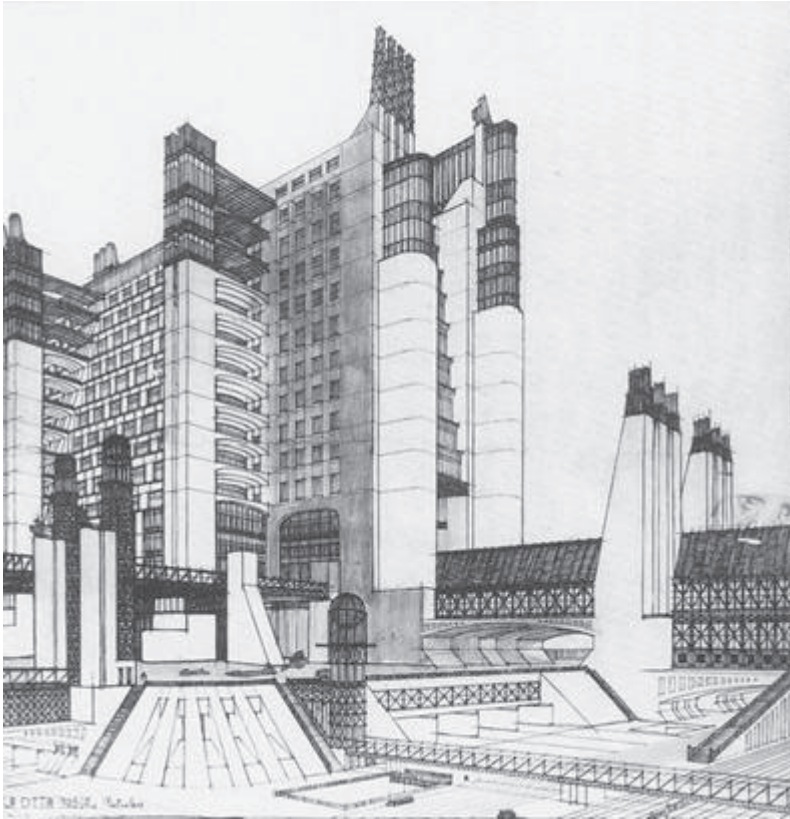
imposed and violated, jurisdictions declared and ignored, markets pumped up and punctured. And at the same time, entirely new spatial conditions, demanding new definitions, have emerged.<sup>70</sup>

### ***Modernism and the Past***

The introduction of modernity-as-idea and Modernism have re-framed the relationship between the fundamentals of our concept of time: the relationship between the past, the present and the future. The principle that the past served as a lesson for an unknown future has been a constant throughout history. It may be that the lesson was salutary or one that should not be repeated, but the past remains significant. Indeed, as discussed in Chapter II, with the present as an advancing but infinitesimal moment between the past the future, the past is the only thing that is real.

The cult of the modern-as-idea brought with it a complete rejection of the past. It can be traced back to Georg Hegel in 1807, who wrote in his preface to the *Phenomenology of Mind*: 'It is surely not difficult to see that our time is a birth and transition to a new period. The Spirit has broken with what was hitherto the world of its existence and imagination and is about to submerge all this in the past; it is at work giving itself a new form....This gradual crumbling ... is interrupted by the break of day, that like lightning, all at once reveals the edifice of the new world.'<sup>71</sup> This sentiment is taken further by the French revolutionary and author, Jules Vallès, in 1867: 'The past, there's our enemy! Humanity would be no worse off if we burned down all the libraries and museums, [for what they now represent is] merely ridiculous and an encumbrance.'<sup>72</sup> It was expressed in the first verse of the 'Internationale', the revolutionary song of the Paris Communards of 1871 which became the

anthem of the Russian soviets in 1917, '*du passé faisons table rase,*' (let us erase the past clean). In 1906, the British historian, Lord Acton, would claim of 'the modern age' that, 'unheralded, it founded a new order of things, under a law of innovation, sapping the ancient reign of continuity.'<sup>73</sup>



15. Project for a building with external elevators, Antonio Sant'Elia, 1914. Futurism was also known in its place of origin, Italy, as the 'down-with-the-past movement'.

By the twentieth century, this had become the established outlook of modernity-as-idea or Modernism, so much so,

that it found its way into the new discipline of psychoanalysis. In 1910, Sigmund Freud described the condition of neurotic and the hysteric patient as one where 'they cannot get free of the past and for its sake they neglect what is real and immediate.'<sup>74</sup> In the same year, Henri Piéron, the founder of scientific psychology in France, related this to creativity: 'all creation is impossible to the one who constantly submits himself to the imprint of past events . . . [since] a surcharge of memory makes new [mental] acquisitions more and more difficult.'<sup>75</sup>



16. *Sainte Marie de la Tourette, Lyon, France, Le Corbusier, 1960: the key figure in the early development of Modernism based his work on a rejection of the past.*

The rejection of the past had its expression in the arts. Italian Futurism was known in Italy as *antipassatismo*, the down-with-the-past movement. In 1909, its leader, Filippo

Marinetti, told the artist that he should not, 'waste the best of you in a useless admiration of the past ... we want nothing of it ... Let the good incendiaries come with their carbonized fingers!'<sup>76</sup> In 1925, the architect, Le Corbusier, said, 'I will throw out everything from the past... today sets us in opposition to [the] past'.<sup>77</sup> More recently, in 2018 the eminent Spanish architect, Rafael Moneo, said, 'I eagerly await an explanation of today's architectural world without a reference to the past, given that it seems so little related to our present.'<sup>78</sup>

This new attitude to time and history is described by Bruno Latour: 'The moderns have a peculiar propensity for understanding time that passes as if it were really abolishing the past behind it. ... nothing of that past survives in them - nothing of that past ought to survive in them.'<sup>79</sup> The past cannot, however, disappear. Aspects of it will remain around us and it will reside in our memories. Impossible to ignore, the past as a series of never-to-be-recovered *Zeitgeists* is, on the other hand, seen to be worth preserving as a record of their authenticity. As Dean MacCannell, theorist of the modern tourism, observes, 'the best indication of the final victory of modernity over other socio-cultural arrangements is not the disappearance of the non-modern world, but its artificial preservation and reconstruction in modern society.'<sup>80</sup> It is an irony that 'authentic' conservation is a way of maintaining and demonstrating the significance of the modernist or historicist view of modernity. In the words of Bruno Latour, 'Historical reconstitution and archaism are two symptoms of the moderns' incapacity to eliminate what they nevertheless have to eliminate in order to retain the impression that time passes'.<sup>81</sup>



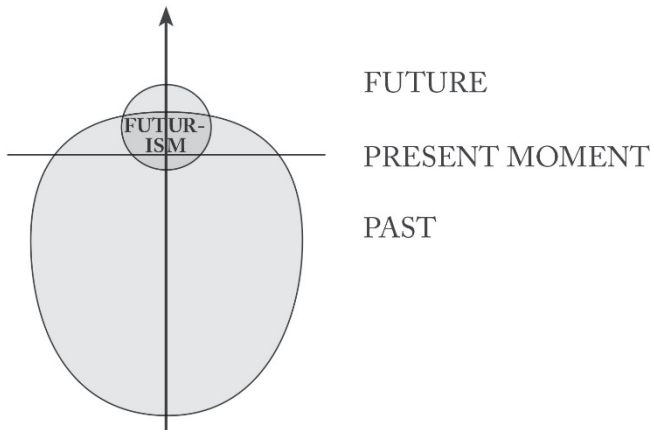


17. Romanian Architects' Union Building, Bucharest, Romania, Dan Marin, Zeno Bogdnescu, 2007. The preservation of historic buildings is supported by modernist architects as it can demonstrate the contrast between the past and present and the 'authenticity' of difference.

### ***Predictive and Future Modernity***

Rejection of the past leaves only the present and the future. As the present is the infinitesimal moment between the present and the future, this only leaves the future. In the broader terms of the extended specious present, if any part

of the past remains it will be minimal. Indeed, as Modernism is specifically described only in terms of what is most up-to-date, recently invented or has just occurred, then these things have their significance in the future. Modernism will encompass the future and, as the future is to a greater or lesser degree unpredictable, this will include prediction.



*18. Futurism. Futurism excludes all of the past and projects itself into the future but nonetheless must include aspects of the present.*

In one respect, modernity as an indication of how things might turn out is reasonable. As discussed in Chapter II, an analysis of new and current events to try and understand the likely direction for the future is the usual practical guide for future action. As Anthony Giddens points out, however, the identification of modernity itself can influence the future it predicts, 'Modernity is inherently future-oriented ... Anticipations of the future become part of the present, thereby rebounding upon how the future actually develops.'<sup>82</sup>

The modernist analysis of what is authentically modern frequently includes specific predictions of future events. The architect, Eric Mendelsohn, said in 1919, 'What today

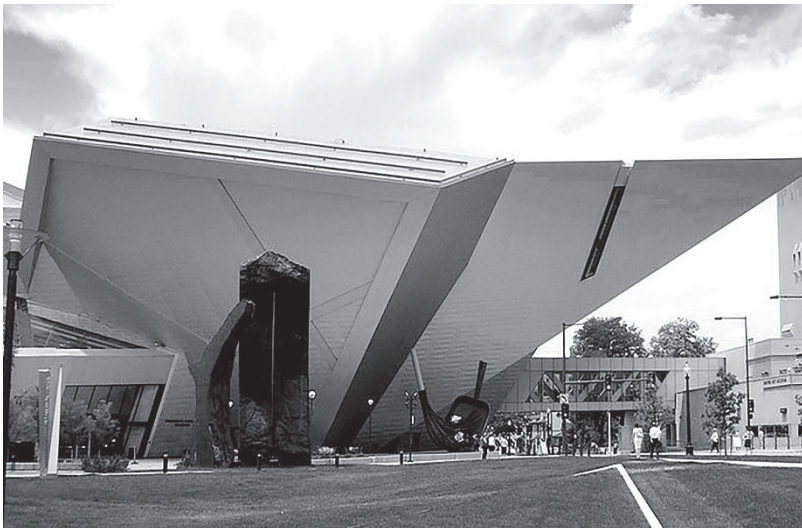


is a problem - will one day be a task; what today is the vision and faith of a single individual, will one day become a law for all. ... Naturally, this era will not be brought into being by social classes in the grip of tradition. Only a new will has the future in its favour in the unconsciousness of its chaotic impetus, in the pristine vigour with which it embraces the universal.'<sup>83</sup> Jürgen Habermas realises that, out of this frame of mind, 'There arises a perspective from which the present state of affairs sees itself called to account as the past of a future present.' Consequently, 'the present is experienced as a time of crisis, ... not only due to modernity's openness to the novelty of the future, but also to the way in which the future functions as a source of pressure brought to bear on unsolved problems, on unrealized or unnoticed possibilities.'<sup>84</sup>



*19. Monsanto House of the Future, Disneyland, Anaheim, California, USA, Marvin Goody & Richard Hamilton, 1957. Predictions of the future are unavoidably based on ideas of the present.*

Modernity can do more than anticipate - it can be the torchbearer for the future. In 1910, in the *Manifesto of the Futurist Painters*, Umberto Apollonio believed that 'the triumphant progress of science makes changes in humanity inevitable,' and talks of 'changes that are hacking an abyss between those docile slaves of tradition and us free moderns who are confident in the radiant splendour of our future.'<sup>85</sup> Massimo Bontempelli would later declare that 'the very spirit of avant garde movements is that of the sacrifice and consecration of the self for those who come after.'<sup>86</sup> Agnes Heller sees sentiments such as these as the mark of 'The modernist man who was clinging to the grand narrative pretend[ing] to know what will happen to the human race in the distant future. He lived (in thought) in this distant future.'<sup>87</sup>



20. *Denver Art Museum, Denver, Colorado, USA, Daniel Libeskind, 2006. Daniel Libeskind presents his buildings not just for the present but for 'those who are unborn'.*

This view of the future reveals the paradox of the avant garde and Modernism. As Renato Poggioli, historian of the avant garde, understood, it 'is the inevitable, inexorable destiny of each movement: to rise up and against the newly outstripped fashion of an old avant garde and to die when a new fashion, movement or avant garde appears.'<sup>88</sup> If modernity is defined as only what is new at a moment of time, the passage of time will quickly make it old; to continue to be avant garde or modern, it is essential that the avant garde artist or modernist finds something that is different from what has gone before, in order to be authentic to the ever-emerging modern condition and to remain avant garde. This perpetual struggle drives modernists to protect themselves by claiming that they are in the future, rather than the present. As Poggioli confirms, 'for the moderns the present is valid only by virtue of the potentialities of the future.'<sup>89</sup>

The French poet and founder of the surrealist movement, André Breton, believed that, 'the work of art is valuable only in-so-far as it is vibrated by the reflexes of the future.'<sup>90</sup> This was quoted by Walter Benjamin in 1936 in his essay *The Work of Art in the Age of Mechanical Reproduction*, with Benjamin himself saying that, 'Each epoch not only dreams the next, but also, in dreaming, strives towards the moment of waking.'<sup>91</sup> In 1956, at the Whitechapel Art Gallery in London, a major exhibition called 'This is Tomorrow,' combined art and architecture and launched the Pop Art movement in the UK. It was conceived by the architecture critic and designer, Theo Crosby, with the exhibition guide designed by the young modernist architect, Colin St John Wilson (later to design the British Library). Habermas, in his book *the Philosophical Discourse of Modernity*, summarises the modernist view, saying that, 'the secular concept of

modernity expresses the conviction that the future has already begun: it is the epoch that lives for the future.'<sup>92</sup>



*21. Portland Building, Portland, Oregon, USA, Michael Graves, 1982. Post-Modernism took various forms but is best remembered for its ironic return to aspects of historic architecture, which was an explicit rejection of the ideals of Modernism.*

The appeal to the future has been adopted by the latest wave of radical architects. Daniel Libeskind says that he is 'building the future'<sup>93</sup> and claims that, 'Every building that is good is not addressed to the public, that they walk around and find themselves to be comfortable. *It is addressed to those who are unborn,*' (my emphasis).<sup>94</sup> Patrik Schumacher, partner of Zaha Hadid, in his theoretical underpinning of Hadid's work, 'Parametricism', says that, 'The historical self-consciousness of architecture demands the revitalization of the concept of style as a profound historical phenomenon that can be projected into the future.'<sup>95</sup> As discussed at the end of Chapter II, the idea of modernity as the future naturally drew some architects to science fiction and the comic book illustrations of future cities. In 1958, the influential architecture critic, Reyner Banham, wrote about science fiction and architecture and, in 1961, the British experimental architecture group, Archigram, published its first pamphlet, *Archigram I*, featuring fanciful buildings and the science fiction illustrations that had inspired them.<sup>96</sup> 'Science fiction' became a useful shorthand description for architecture conceived as a vision of the future. *The Shanghai Global Times*, for example, calls an exhibition of new architecture 'The City of Science Fiction'.<sup>97</sup> and the architect and author, Keller Easterling, describes the Cyber Gateway of HITEC City in Hyderabad as like 'Hollywood constructions in science-fiction movies like *Stargate*'.<sup>98</sup>

### ***Modernity as the Past***

The arrival of Post-Modernity as a major concept in the analysis of contemporary culture is a product of an inbuilt paradox in modernity and the avant garde. In the late 1960s, there began to be a feeling that revolutionary modernity - modernity-as-idea - which had by that time



taken root in so many aspects of life, and in particular the arts and architecture, had become so general that it was no longer advancing as it should. In 1966, Henry-Russell Hitchcock, one of the creators of the term 'International Style' in 1932, asked 'Who shall say, a generation after its heyday, when the International Style died? That it is over is today as clear as that the near-revolution it constituted remains the basis, now become traditional, of later modern architecture.'<sup>99</sup> Tradition being, of course, the antithesis of the Modernism that was the International Style (although it is not clear that Hitchcock recognised the irony of this point). The poet, Octavio Paz, a year later thought that 'the avant-garde of 1967 repeats the deeds and gestures of those of 1917. We are experiencing the end of the idea of modern art.'<sup>100</sup> The end of modern art would be put forward as the end of modernity-as-idea and so the beginning of the Post-Modern. In 1972, the first edition of the US *International Journal of Literature and Culture*, *Boundary 2*, was subtitled the *Journal of Postmodern Literature and Culture*, and identified Post-Modernism as a literary genre. The most widely used definition of Post-Modernism was, however, formulated in 1979 by the French philosopher and literary theorist, Jean-François Lyotard, in his influential publication, *The Postmodern Condition: A Report on Knowledge*. Lyotard says, 'Simplifying to the extreme, I define postmodern as incredulity toward metanarratives.'<sup>101</sup>

The 'metanarratives' to which Lyotard refers are the overarching theories that lie behind Modernism. In 1985, the Italian philosopher, Gianni Vattimo, in his book *The End of Modernity: Nihilism and Hermeneutics in Post-modern Culture*, saw Post Modernity as the end of the notion of progress.<sup>102</sup> This must be a crisis for Modernism as the removal of the ideal of perpetual progress seems to

remove the sense of purpose in the pursuit of modernity. In 1983, Habermas recorded that, 'anyone who considers himself avant garde can read his own death warrant. Although the avant garde is still considered to be expanding, it is supposedly no longer creative. Modernism is dominant but dead.'<sup>103</sup> There is no doubt that this was a crisis for the disciples of Modernism. The architectural critic, Kenneth Frampton, believed that, 'there remains a solid and liberating heritage lying within the complex culture that we generally subsume under the term the Modern Movement, (the architectural term for Modernism). It is nothing short of reactionary folly to abandon the liberative,[sic] critical, and poetic traditions of this century.'<sup>104</sup> Marshall Berman suggested a revitalisation of Modernism from its origins: 'remembering the Modernisms of the nineteenth century can give us the vision and courage to create the Modernisms of the twenty-first. This act of remembering can help us bring Modernism back to its roots, so that it can nourish and renew itself, to confront the adventures and dangers that lie ahead.'<sup>105</sup> Berman's 1983 book, *All That is Solid Melts into Air: The Experience of Modernity*, was a source of hope to the disillusioned modernists of the time.

Notwithstanding any attempt to recover the lost mission of Modernism, by the 1980s there was a widespread recognition that, as the German sociologist, Ulrich Beck said, 'the further the modernization of modern societies proceeds, the more the foundations of industrial society are dissolved, consumed, changed and threatened.'<sup>106</sup> John Gray confirms that, 'Our situation, as late moderns, whether we wish it or not, is to belong to a post-Enlightenment culture, in which the rationalist religions of humanity are as almost as archaic, as alien and as remote as the traditional transcendental faiths.'<sup>107</sup> Theodor Adorno

saw that, 'the concept of the avant garde, reserved for many decades for whatever movement declared itself the most advanced, now has some of the comic quality of aged youth.'<sup>108</sup>

The British sociologist, Mike Featherstone, expands this to include cultural authority, in which Modernism had stood at a moral and institutional peak, the consequence of which takes society to 'a dissolution of symbolic hierarchies which entail canonical judgements of taste and value, towards a populist collapse of the distinction between high and popular culture.'<sup>109</sup> As the political scientist, Robert Inglehart, points out, this allowed for the re-emergence of the one phenomenon that the Enlightenment and Modernism had set out to eliminate, 'since Modernization drastically devalued tradition, its demise opens the way for [its] revalorization'.<sup>110</sup> The aesthetic expression of the re-emergence of traditional forms in art and architecture has become the best-known symbols of Post-Modernism. This is not, however, its only or necessary outcome. As Lyotard himself points out, 'Eclecticism is the degree zero of contemporary general culture: one listens to reggae, watches a western, eats McDonald's food for lunch and local cuisine for dinner, wears Paris perfume in Tokyo and 'retro' clothes in Hong Kong.'<sup>111</sup> The end of the authority of Modernism is just as likely to lead to the aesthetic of the neo-classical as to the Guggenheim Museum in Bilbao.

Post-Modernism as a brash eclectic style, ended with the financial crisis in the early 1990s. The adherence to Modernism was regained in the architectural profession and Post-Modernism became like an embarrassing out-of-date fashion no-one would admit to wearing. It remains debatable whether we are, in a broad cultural sense, in an era which post-dates the original modernity-as-idea with its



lineage in the Enlightenment and the avant garde, or whether we have just entered another stage. What is clear, however, is that the multiple meanings of modernity do not assist in this debate. 'Modernity' is a word which is employed indiscriminately with clearly different meanings to justify or traduce a particular point of view.

### ***The Lexicology of Modernity***

The normal lack of distinction between different meanings of modernity can lead to genuine misunderstanding and ideological confusion.

When Henry Russell-Hitchcock complains that, 'even where modern construction has been introduced, the sponsors have been loath to provide modern design,'<sup>112</sup> there is no contradiction between the form of construction and the design. The building construction to which he refers is Ordinary Modernity, whereas the modern design to which he refers – and this is in the book *The International Style* – is modernist. There is no contradiction.

It should assist if we can isolate the different meanings of modernity. They can be arranged in a sequence according to their relationship to the passage of time, from the past to the future.

1. Historical Modernity: (not discussed here) in the humanities, Modern History, the period from the renaissance to the present day.
2. Past Modernity: any period of modernity that has occurred and is no longer current; can include Modernism.

3. Simple Modernity: all the objects and activities that occur in a period, usually the current period.
4. Ordinary Modernity: the objects and activities that are typical of ordinary life in a period without any additional value judgement, usually the current period.
5. Modernism: the objects and activities that are new and up-to-date in a period, may include any period where a similar definition was in currency.
6. Predictive Modernity: the objects and activities in a period that are estimated to have a significance for the future.
7. Future Modernity: the predicted state of future based on the current period.

Any one of these versions of modernity can be seen as either positive or negative.

## 5. Positive and Negative Perceptions of Modernity

### *Positive*

The positive idea of progress shines through the history of modernity. For three centuries the Enlightenment and its successor, Modernism, have taken charge of the concept of modernity and have painted it in a positive light. John Gray sums up the role of the Enlightenment as: the 'doctrine of progress ... an historical philosophy which incorporates the idea of progress towards a universal civilization is integral to the Enlightenment project and central in the self-image of the modern age.'<sup>113</sup> This philosophy was carried forward by modernist historians. As

Agnes Heller says: 'Modernist moderns have claimed a privileged position in history for themselves. They assumed that because of the present stage of historical development, they are the first to understand what history is about. ... According to the creed of this version, science guarantees not only an insight into the future, but also the constant improvement of everything, such as technology, the economy, art, well-being, and the like.'<sup>114</sup>

The results were an unambiguous enthusiasm for modernity. In 1814, Comte de Saint-Simon would believe that: 'The golden age is not behind us, but in front of us. It is the perfection of the social order. Our fathers have not seen it; our children will arrive there one day, and it is for us to clear the way for them.'<sup>115</sup> In the middle of the nineteenth century, the historian, Alexis de Tocqueville, enthusiastically agreed, saying, 'I affirm Progress resolutely, irrevocably, and everywhere.'<sup>116</sup> The connection between progress and modernity remains popular, as Mike Featherstone explains: 'When a society calls itself modern, it marks its newness through a time-line in which the old is relegated into the past. The modern becomes a praise-word and the not-modern becomes reduced to the blame-word tradition.'<sup>117</sup>

The idea of continuous beneficial progression through modernity is persistent and popular and can be applied to any form of modernity, provided it is given a positive attribution. It is, however, most satisfactorily associated with Modernism, Predictive Modernity and Future Modernity as these are generally, but not necessarily, framed with an optimistic outlook.

## *Negative*

Inasmuch as the modernity of the present or future is part of the process of change, there will always be those who view it negatively. Change inevitably means uncertainty and, while there are a few like Marshall Berman who welcome the thrill of the unexpected, many people are concerned that the unknown may deliver something worse. Much will depend on the experience of recent change. If this is a consistent improvement on all aspects of life, then modernity is more likely to receive a favourable reception.



*22. Pena Palace, Sintra, Portugal, Wilhelm Ludwig von Eschwege and Nicolau Pires, started 1836: Early nineteenth century Romanticism was an aesthetic reaction to the rationalism of Neo-Classical architecture.*

In the nineteenth century, while many threatened institutions, such as the Church, the aristocracy and organised craft labour, resisted modernising developments in science, social mobility and industry, there were few major cultural challenges to the gradual realisation of

Enlightenment objectives. The only significant exception is Romanticism, much later called the 'Counter-Enlightenment'.<sup>118</sup> Romanticism was everything that the Enlightenment was not: it elevated emotion and the revelation of the individual over logic and reason; it admired folk traditions and wondered at the mysteries of the Middle Ages; it sought out the wildness of nature in preference to man-made places; and it turned its back on the realities of industrialisation. The German poet, Friederich Hölderlin, summed it up in 1795: 'What has always made the state a hell on earth has been precisely that man has tried to make it his heaven.'<sup>119</sup>

Romanticism would remain a continuous undercurrent from this time onwards, but the greatest disillusion with modernity came with the mechanised slaughter of the First World War. By this time, modernity was firmly ensconced as the defining characteristic of the age and, with the horror of the War seen as the outcome of progress, people questioned the value of modernity. The mood of the time was caught by Oswald Spengler's widely-read 1918 publication, *The Decline of the West*. Spengler saw western civilisation in its 'Faustian winter' where 'finally, weary, reluctant, cold, it loses its desire to be'<sup>120</sup> and he mocked 'the tragic comedy of world-improvers and freedom-teachers'.<sup>121</sup> Spengler's work was influential in two significant inter-war phenomena: his prediction that we were entering an age where we would see the 'final or industrial form of ornament: no longer historical,'<sup>122</sup> influenced the new industrially-inspired modernist architecture; at the same time his vision that 'the Caesarism that is to succeed approaches ... And a task that historic necessity has set *will* be accomplished with the individual or against him,'<sup>123</sup> (emphasis in original) was realised in the age of dictators.

It was the outcome of Spengler's 'Caesarism', in the combination of extreme nationalism and charismatic dictatorship, that brought about the other great crisis of modernity, the Second World War and, in particular, the Holocaust. The technological advances central to Modernism had created the conditions that facilitated the War and the industrialised genocide of the Nazi regime. The effect was profound. In 1948 the Anglo-American poet, T. S. Eliot, wrote, 'We can assert with some confidence that our own period is one of decline; that the standards of culture are lower than they were fifty years ago; and that the evidences of this decline are visible in every department of human activity.'<sup>124</sup> A year later Theodor Adorno, said, 'writing poetry after Auschwitz is barbaric.'<sup>125</sup>

In the later twentieth century, economic growth and a dramatic improvement in the standard of living in developed countries gave a revived credibility to modernity, in particular as competitive modernity became a weapon in the Cold War. It was not long, however, before the negative effects of this growth became apparent.

In 1962, the biologist, Rachel Carson, published *Silent Spring*. This influential book identified how modern industry, in particular the chemical industry, was destroying the natural environment. Carson railed against the wider ills of modern life: 'Why should we tolerate a diet of weak poisons, a home in insipid surroundings, a circle of acquaintances who are not quite our enemies, the noise of motors with just enough relief to prevent insanity? Who would want to live in a world which is just not quite fatal?'<sup>126</sup> The book is widely credited with launching the environmental movement which continues to grow in strength as the evidence of the damage to the earth extends to the climate itself. As Peter Taylor says,

'Modernity is crucially implicated in this capitalist route to ecological disaster. The cultural appeal of becoming modern - which today means ever new consumptions - is what creates the market demand enabling ceaseless capital accumulation to continue.'<sup>127</sup>

Modernity promoted by the USA as capitalism, has also had a worldwide cultural impact. The expansion of world trade and the influence of the powerful North-Atlantic nations on less developed economies have brought the attractions of western modernity, particularly in the form of consumer goods and the communication media, face to face with quite different cultural values. The impact of this is described by James D. Kiras, Professor of Strategy at the School of Advanced Air and Space Studies, Maxwell Airforce Base, Alabama: 'Once sought after as an entry method to economic prosperity, Western secular, materialist cultural values are increasingly rejected by those seeking to regain and preserve their own unique cultural identity. The social changes associated with globalization and the spread of free market capitalism can seem to overwhelm the ethnic identity or religious values of smaller groups who believe that they are the losers in the new international system. In an attempt to preserve their threatened identity and values, groups actively distinguish themselves from "others" who have different norms. ...Where individuals within a culture perceive their civilization to be weakened, insecure, or stagnant, and interaction is high between weak and strong civilizations, conflict may be inevitable.'<sup>128</sup>

This conflict is most apparent in the current and most extreme negative response to modernity - terrorism. The Spanish sociologist, Manuel Castells, sees the origins of terrorism in the Muslim world as a combination of the



successes and failures of modernisation. 'The social roots of radical fundamentalism appear to derive from the combination of successful state-led modernization in the 1950s and 1960s and the failure of economic modernization in most Muslim countries during the 1970s and 1980s, as their economies could not adapt to the new conditions of global competition and technological revolution in the latter period. Thus, a young, urban population, with a high level of education as a result of the first wave of modernization, was frustrated in its expectations, as the economy faltered and new forms of cultural dependency settled in. It was joined in its discontent by impoverished masses expelled from rural areas to cities by the unbalanced modernization of agriculture.'<sup>129</sup>

### ***Perceptions of Different Modernities***

Positive and negative responses are found across the different meanings of modernity. A sense of wellbeing is more likely to be perceived in Ordinary Modernity than in Modernism or Predictive Modernity (although they may provide a psychological boost). Progress can be experienced in Simple and Ordinary Modernity, even if it is promoted with Modernism and Predictive and Future Modernity. Warfare is waged, environmental damage inflicted and cultures changed by the Ordinary Modernity of industry and trade. Modernism is, however, the most likely victim and perpetrator of the negative response to modernity. The conviction that an authentically modern society is only defined by its most up-to-date products and activities does not allow for the inclusion of the traditions and familiar life-styles in which many people find security and identity.

## 6. The Geography of Modernity

European Enlightenment thinkers in the eighteenth and nineteenth centuries gave themselves a geographic mission. Scientific discovery was accompanied by voyages of discovery where Europeans came across people who lacked their level of technological development or, as in the east, were sophisticated civilisations, but were either militarily weak or lacked geographic curiosity. This led to a combination of a sense of superiority with a civilising mission. For Immanuel Kant in 1784, 'the highest purpose of nature, a universal cosmopolitan existence, will at last be realised as the matrix within which all the original capacities of the human race will develop.'<sup>130</sup> In 1800, a disciple of Kant, Johann Gottlieb Fichte, was more explicit, 'It is the vocation of our race to unite itself into one single body, all possessed of a similar culture.'<sup>131</sup>

Alongside the rationalist ideals of the Enlightenment, another powerful force was re-asserting itself. In 1792, an English Baptist minister, William Carey, published a manifesto, *An Enquiry into the Obligations of Christians to use Means for the Conversion of the Heathens*,<sup>132</sup> and so launched the Christian mission to combine European discovery and colonisation with conversion to Christianity. The missionary movement would expand dramatically in the nineteenth and twentieth centuries and is alive and well today, particularly American evangelism. While these early missions were altruistic, they could not help but reinforce the sense of superiority of those who came to the 'heathen' peoples. Indeed, missionaries saw God's work in an Enlightenment perspective. In 1806, the Anglican missionary, Samuel Marsden, called the 'Apostle to the Maoris,' wrote, 'Their minds appeared like a rich soil that had never been cultivated, and only wanted the proper

means of improvement to render them fit to rank with civilized nations.<sup>133</sup> These missions were in no doubt that technology was an important adjunct to the Gospels for conversion and took skilled craftsmen and machinery to demonstrate the advanced state of Christian civilization.



23. *India Gate, New Delhi, India, Sir Edwin Lutyens, 1931. European colonialism was associated with an assumption that of European culture was both superior and modern.*

Colonisation provided an ideal arena for a demonstration of the superiority of European modernity. As the Indian historian, Dipesh Chakrabarty, says, 'Europe's acquisition of the adjective modern for itself is a piece of global history of which an integral part is the story of European imperialism.'<sup>134</sup> The Indian architect and historian, Jyoti Hosagrahar, expands on this: 'Appropriating history and historiography, Europe constructed itself as the prototypical "modern" subject. To be "modern" was the prerogative of European rulers who claimed the right to define its meaning and assert its forms. The definition was based on difference: to be "modern" was to be "not traditional". In this binary scheme of being "modern" and "traditional", those that were not entirely one or the other were declared to be "modernizing" towards a predetermined end. For those who regard the forms of Europe's modernity to be the only ones that are valid, all others were transitory, incomplete, inadequate, or "traditional."' <sup>135</sup>

The impact of the European idea of modernity did not disappear with the end of colonial rule. As the American anthropologist, Ronald Niezen, explains, 'It was clear to most anti-colonial activists and freedom fighters that expelling the occupiers required various kinds of adaptive mimesis – acquiring the colonisers' military technology, setting political goals that correspond with the structures of European imperial power, taking on nationalism as the form of identity most likely to politically succeed.'<sup>136</sup> The Indian essayist and novelist, Pankaj Mishra, sees this frame of mind in the Indian independence movement, 'Some denounced British imperialism as exploitative, but even they welcomed its redeeming modernity, and, above all, the European idea of the nation - a cohesive community with a common history, culture, values, and sense of purpose - which for many other colonized peoples appeared a way of duplicating the success

of the powerful, all-conquering West.<sup>137</sup> Even when the Punjab state looked for a new capital following independence and commissioned Le Corbusier to design Chandigarh, 'the Indians looked towards the Westerners not only for technological and formal solutions, but also for a means for constructing their own identity and to some extent history.'<sup>138</sup> Architects such as the Malaysian, Lim Chong Keat, returning to their independent homelands from training in the schools of their colonisers, could be so infused with the European idea of modernity that they saw in it a way to express their nationhood rather than deny it. Lim Chong Keat saw any return to an overt traditional style as 'synthetic nationhood' and issued a warning to post-colonial societies in general: 'If [nationalist] tendencies are unchecked, there is a real danger in many of the developing nations that architectural development would become a stylised expression, based on the myth of cultural independence, instead of taking root as a progressive discipline that can offer newer and better technological and aesthetic solutions.'<sup>139</sup> In 2014, the Chinese architect, Ma Yansong, saw that Chinese architects 'want to do something modern' in order to copy a Western 'symbolic modern urban image.'<sup>140</sup> The 'progressive discipline' and 'something modern' are, of course, Modernism.

By the time the European empires were being disbanded, the United States had adopted the role of custodian of world modernity. The US sociologist, Talcott Parsons, records the American view of the post-imperial condition: 'The imperialist phase of Western society's relation with the rest of the world was transitional. The trend toward modernization has now become worldwide. The elites of most non-modern societies accept aspects of the values of modernity, especially economic development, education, political independence, and some form of democracy.

Though the institutionalization of these values is uneven and fraught with conflict, the trend towards modernization in the Western world will probably continue.’<sup>141</sup> Parsons also sets down the position of the USA in this trend: ‘The United States is extending the organization of social life in individualistic, decentralized, and associational directions... . Other societies will necessarily adopt these features as they move toward modernity.’<sup>142</sup>



24. IFS Tower T1, Changsha, China, Wong Tung & Partners, 2017. *The rapid expansion and modernisation of the Chinese economy included the wholesale adoption of North-Atlantic modernist architecture.*

The Haitian anthropologist, Michel-Rolph Trouillot, observed in 2002 that: 'Modernity ... belongs to a family of words we may label "North Atlantic universals" ... Words inherited from what we now call the West that project the North Atlantic experience on a universal scale that they helped to create ... words such as "development", "progress", "democracy" and indeed, the "West" .... come to us loaded with aesthetic and stylistic sensibilities from what it means to be a human being to the proper relationship between humans and the natural world ... since they are projected as universals they deny their localization, the sensibilities and the history from which they spring.'<sup>143</sup> However, as what Immanuel Wallerstein calls the 'World-System' becomes more complex, it seems that, as Wallerstein believes, 'we shall never have a stable libertarian/egalitarian world'.<sup>144</sup> and thus the idea of the geographic dominance of a singular concept of modernity becomes less clear.

As the modernisation of China brings it to the status of a world power some of the complexities and contradictions of global modernity are revealed. The Chinese anthropologist, Yan Yunxiang, believes that 'the localization of foreign culture and the indigenous approach toward imported culture are key to understanding the current process of cultural globalization in China ... ownership of Western culture is neither immutable nor non-transferable .... intellectuals, business elites, and professionals feel a sense of entitlement in claiming the localized foreign culture as their own, or as part of the emerging global culture in which they too play a role.'<sup>145</sup> The Chinese-American philosopher, Tu Weiming, puts this into a wider Asian context: 'The rise of "Confucian" East Asia Japan, the Four Mini-Dragons, mainland China, Vietnam and possibly North Korea, suggests that despite global trends defined

primarily in economic and geopolitical terms, cultural traditions continue to exert shaping influences in the modernizing process. Although, genetically, modernization originated from the West, it has already assumed cultural forms so significantly different from those in Western Europe and North America that, empirically, we must entertain alternatives to Western Modernism.<sup>146</sup>

If, as Peter Taylor suggests, ‘ordinary modernity culminating in American levels of consumption leads to an extraordinary crisis,’<sup>147</sup> we should be looking more widely to the ‘indigenous modernities’ of Jyoti Hosagrahar, which ‘negotiate the uniqueness of a region and its history with the ‘universals’ of science, reason, and liberation.’<sup>148</sup> The Predictive and Future Modernities that accompany Modernism and gave rise to the suprematist theory of political progress and ‘the end of history’ have proved to be false. It will be more useful to see the world as a series of Ordinary Modernities, each an indigenous modernity, each sharing technical modernisations where these prove to be practical, each sharing a greater or lesser commonality, but free of an overweening vision of an exclusively defined modernity and an exclusive vision for the future that can only lead to dissent and conflict.

## 7. Understanding Modernity

It is remarkable that a term so central, not just to ideas about architecture but to our perception of society as a whole, should have so many varied meanings. And yet, it is almost always used without qualification. Such ambiguity can, possibly deliberately, suggest the association of one meaning with another, when in fact there is no such association. More frequently, it is likely that the ambiguity and lack of clarity exist in the mind of the user.



As modernity has at its core the idea of the present time, this is where much of the ambiguity lies. Once the concept of present time moves away from the analytical principle that it is only an imperceptible and infinitesimal moment between the past and the future, ambiguity and confusion become more likely. William James's introduction of the concept of the 'Specious Present' moves away from logic to perception. There is no doubt that the everyday idea of the present is not imperceptible and infinitesimal, but can be perceived and has a span of time - it is real. It does, however, immediately raise the question: if the present stretches into the past and includes a prediction of the future, what past and what future? There can be many answers to the question: the past and future, inasmuch as they affect any discrete event that is observed; the past and future relevant to an action that is contemplated; the past and future of all events that affect any particular event or action; the past and future of any communicating group that observe an event; and so on.

This ambiguity is passed on into the idea of modernity. Modernity as a phenomenon cannot just be an infinitesimal moment, or it would not exist in any perceptible or actionable sense. Inasmuch as it is the present, it will be an extended version of James's specious present. The closest modernity will come to anything like the idea of an extended specious present is Simple Modernity, which includes everything in the present in a bundle. The same questions can be raised about Simple Modernity as might be raised about the specious present, but at least all events that exist in the present are represented, some of which may have a greater backward impression and some which may engender a greater need for prediction than others. Simple Modernity is unambiguously modernity-as-now.

As soon as a step is taken away from this position, some things that exist in the present are not modern and some are. It is no longer modernity-as-now, but starts to be modernity-as-idea. With Ordinary Modernity, a decision has to be made as to what is ordinary and so some things, although existing and functioning now, will not be categorised as ordinarily modern. Eventually, the position is reached where there is an attempt to detach modernity-as-idea from modernity-as-now, as with Post-Modernity or Future Modernity. In reality, this is just a terminological problem. The dilemma of putting modernity-as-idea into the past (as a contrary to a past modernity, which is an inevitable condition), while being modern-as-now, can easily be solved by re-naming 'Post-Modern' as 'Post-Modernism'. Future Modernity is just prediction, which is necessary for all creative action but far-reaching predictions are notoriously inaccurate. The present is all there is and it has come from the past.

While the decision as to what is or is not ordinary in Ordinary Modernity does not exclude anything from the modern condition, it just makes some things ordinary and some not, the same cannot be said of Modernism and its offshoot, Predictive Modernity. The fact that modernity and the present are coextensive, as well as the linguistic lack of definition between different versions of modernity, has allowed proponents of Modernism to conflate modernity-as-idea and modernity-as-now and thereby has led to the classification of some things as modern and some things not. These are not objective categories but are based on theories and, in excluding phenomena that are contemporary with others, make them into aberrations or falsities. This leads to the idea that anything that has been classified as 'not-modern' simply should not be here at all (except perhaps to be preserved to illustrate the novelty of

modernity). People who adhere to these 'not-modern' ways of thinking and practices are accused of 'being in the past' or 'not of their time' (which of course is not possible). These aberrations are condemned as a check on progress or, more damaging still, a threat to the 'true direction of history', and so are to be at best ignored, and at worst expunged. They might include long-established practices or surviving objects, phenomena peculiar to particular regions or specific ways of thinking. We return to the French *Committee of Public Safety* of the 1790s and the words of the 'Angel of Death', Louis Antoine de Saint-Just: 'in a time of innovation, everything that is not new is pernicious.'<sup>149</sup>

The tyranny of a selective and censorious view of what is modern and what is not modern is based on a deterministic view of time: it has a direction and it has a pace and to interrupt either would be wrong. The idea that the forward movement of time or history has a known direction has ancient and religious roots but, in the end, is a belief or a theory. Forcible conformity to these predictions has brought about much suffering and persists in spite of the historical record of unpredictability. Part of this conformity is the deliberate forgetting or rejection of the past as 'not modern'. Even the extended specious present, however, largely consists of the past and, other than an uncertain prediction of the future and the present instant, the past is all we have. The past only exists as memory and it is this memory that gives everything meaning. As the eminent cognitive neuroscientist, Michael Gazzaniga, said, 'Everything in life is memory, save for the thin edge of the present'.<sup>150</sup>

## Endnotes

- <sup>1</sup> Bruno Latour, *We Have Never Been Modern*, trans. Catherine Porter, Harvard University Press, 1993 (1991), 10.

- 2 The use of 'project' from Heidegger as translation of *entwurf* and the subject of a paper by Jürgen Habermas, 'Modernity: an unfinished project', 1980 lecture on eve of getting Theodor W. Adorno Prize.
- 3 Le Corbusier, *Towards a New Architecture*, (1923) trans. F. Etchells, J. Rodger, London, 1931, 288.
- 4 Walter Gropius, 'Principles of Bauhaus Production, 1926', from H. Wingler, *The Bauhaus, Weimar, Dessau, Berlin, Chicago*, trans. Wolfgang and Basil Gilbert, Cambridge, Mass, MIT Press, 1969, 109-10
- 5 *Das neue Frankfurt: internationale Monatsschrift für die Probleme kultureller Neugestaltung, Frankfurt am Main*, Englert und Schlosser, 1928, 195
- 6 Frank Lloyd Wright, 'To the Young Man in Architecture' (1931), in *Frank Lloyd Wright, The Future of Architecture*, New York, Horizon Press, 1953, 215
- 7 Henry-Russell Hitchcock, 'What is happening to Modern Architecture?' Symposium at MOMA, New York, Bulletin of the Museum of Modern Art XV, 3, Spring 1948, February 11th 1948, 298
- 8 Zaha Hadid, *Planetary Architecture Two*, London, The Architectural Association, 1983, unpaginated, second facing page
- 9 'Jean Nouvel', *RIBA Journal*, January 1993, 44-46
- 10 'Vladimir Paperny, Interview with Charles Gwathmey', *Architectural Digest Russia*, June 6th 2006
- 11 Wendy Moonan, 'A Classic Remastered', *Architectural Record*, August 2014, 83-4
- 12 Michael Kimmelman, 'David Adjaye on Designing a Museum That Speaks a Different Language', *Art & Design* Sept. 21, 2016
- 13 Aristotle, *Physics, Book IV*, part 110-13
- 14 St Augustine, *Confessions*, 175/Chapter XV extract: 19 & 20
- 15 William James, (1890), *Principles of Psychology* (2 vols.), New York, Henry Holt, 609
- 16 Jenann Ismael, 'Temporal Experience', in Craig Callender (ed.), *The Oxford Handbook of the Philosophy of Time*, Oxford University Press, 2011, 476
- 17 D. H. Mellor, *Real Time*, Cambridge, Cambridge University Press, 1981, 14-17
- 18 <http://www.oed.com/>
- 19 Fra' Giordano of Pisa, sermon given at Santa Maria Novella in Florence, 1306. Quoted by White in: Lynn White, Jr., *Cultural*

- Climates and Technological Advance in the Middle Ages*, Viator, II, 1971, 171-201
- 20 Francis Bacon, *Novum Organum Scientiarum*, London, John Billium, 1620, LXXXIV
- 21 Idem, CXXII
- 22 Idem, XXXI
- 23 Jonathan Swift, *A Full and True Account OF THE BATTEL Fought last F R I D AY, Between the Antient and the Modern BOOKS IN St. JAMES's LIBRARY*. London 1710
- 24 Charles Perrault, *Le Siècle de Louis le Grand*, Paris, 1687
- 25 Antoine-Nicholas de Condorcet, *Sketch for a Historical Picture of the Progress of the Human Mind*, 1795, trans. June Barraclough, London, Weidenfeld and Nicholson, 1955, 175
- 26 Quoted by J. B. Bury, *The Idea of Progress: An Enquiry into Its Origin and Growth*, 1921 Edn. 2004 Honolulu, Hawaii, University of the Pacific, 192-3
- 27 Lemerancier De La Rivière De Saint-Médard, *Ordre naturel et essentiel des sociétés politiques*, Paris, 1767
- 28 Immanuel Kant, *Political Writings*, Trans. by H.B. Nesbitt, Cambridge University Press, 1991, 41
- 29 Joseph Priestly, *An Essay on the First Principles of Government, and on the Nature of Political, Civil, and Religious Liberty*, Dublin, 1768, 8
- 30 Denis Diderot and Jean La Rond d'Alembert, *The Encyclopedia: systematic dictionary of the sciences, arts and crafts*, Paris, 1751-1772, entry on 'Eclecticism'
- 31 Baron d'Holbach, *Superstition In All Ages: Common Sense*, 1732, Tredition, Hamburg, 2012, Author's Preface
- 32 Louis Antoine Léon Saint-Just, *Rapport au nom du Comité de Salut public: 1er octobre 1793*, 'Tout ce qui n'est point nouveau dans un temps d'innovation est pernicieux.' Bibliothèque de l'Assemblée nationale, France
- 33 G. W. F. Hegel, *Phenomenology of Spirit*, (1807) trans. A.V. Miller, Oxford, Oxford University Press, 1977, 6-7
- 34 Agnes Heller, *A Theory of Modernity*, London, Blackwell, 1999, 20
- 35 Karl Marx, *A Contribution to the Critique of Political Economy*, (1859) On-Line Version: Marx.org 1993 (Preface, 1993), Marxists.org 1999, Pref-ace, 4
- 36 Friedrich Engels and Karl Marx, *The Communist Manifesto*, London, 1848
- 37 Karl Marx, 'The Eighteenth Brumaire of Louis Napoleon', *Die Revolution*, New York, 1852

- 38 Marshall Berman, *All That is Solid Melts into Air: the experience of modernity*, New York, Verso Books, 1983, 102
- 39 Edward Wilson (ed.) *From So Simple a Beginning: the four great books of Charles Darwin, Origin of Species*, (1859) Conclusion, 759
- 40 Idem, 760
- 41 Gabriele-Désiré Laverdante, *De la mission de l'arte et du rôle des artistes*, 1845, Institut national d'histoire de l'art, Les Collections Électrique
- 42 Jonathan Mayne, editor and translator, *The Painter of Modern Life and other essays* by Charles Baudelaire, London, Phaidon, 1964, 13
- 43 Arthur Rimbaud, letter to Paul Demeny, Charleville, May 15th, 1871
- 44 Arthur Rimbaud, *Une Saison en Enfer*, Brussels, Alliance Typographique, 1873, 7&52
- 45 Leopold von Ranke, *Über die Epochen der neuen Weltgeschichte*, Weltgeschichte, Theil IX AB. 2, 1-9, trans. Wilma Iggers in Ranke, 1983, 52-6
- 46 Henry Adams, *The Tendency of History*, Annual Report of the American Historical Association, 1894, Washington DC, US Government Printing Office, unpaginated front material
- 47 Quoted in, Sidney M. Milkis and Jerome M. Mileur, *Progressivism and the New Democracy*, Amherst, University of Massachusetts Press, 1999, 19-20.
- 48 J. V. Stalin, *The Fourteenth Congress of the C.P.S.U.(B.)*, December 18-31, 1925, Moscow, Foreign Languages Publishing House, 1954
- 49 Zhou Enlai, speech at the meeting of the Shanghai Science and Technology Work Conference, January 29th 1963
- 50 Talcot Parsons, *The Evolution of Societies*, Upper Saddle River, NJ, Prentice Hall, 1977, 215
- 51 Hu Jintao's report at 17th Party Congress, Xinhua, October 24th 2007
- 52 Denise Scott Brown, 'Where's the big idea', *RIBA Journal*, March 2008, 46
- 53 Arwas, Victor. *Art Deco*. Second ed. New York: Abradale Press, 1992, 13
- 54 Idem ref 7
- 55 Craig Calhoun, 'Nationalism, Modernism, and their Multiplicities' in Eliézer Ben Rafael, Yitzhak Sternberg (eds.), *Identity, Culture and Globalization*, Leiden, Brill, 2002, 445

- 56 Daniel C. Dennet: *Darwin's Dangerous Idea*. London, Penguin, 1995, 450-1
- 57 Peter J Taylor, *Modernities: a geohistorical interpretation*, Cambridge, Polity Press, 1999
- 58 Michel de Certeau, translation Steven Rendall, *The Practice of Everyday Life (Arts de Faire)*, Oakland CA, University of California Press, 1984, 5
- 59 Theodor Adorno, *Aesthetic Theory*, trans. Robert Hullot-Kentor, London, Continuum, 997, 240
- 60 Jürgen Habermas; *The Philosophical Discourse of Modernity*, Polity Press, [1985] 1987, 15
- 61 Agnes Heller, *A Theory of Modernity*, London, Blackwell, 1999, 143
- 62 Walter Benjamin, 'Theses on the Philosophy of History,' (1940) In *Illuminations*, trans. Harry Zorn, London, Pimlico, 1999, 247
- 63 Barbara Adam 'Detraditionalization and the Certainty of Uncertain Futures', in Paul Heelas, Scott Lash, Paul Morris (eds.), *Detraditionalisation*, London, Blackwell, 1996, 144-5
- 64 Theodor Adorno, op cit, 352
- 65 Paul Valéry, 'The Conquest of Ubiquity' (1928), in *Aesthetics*, trans. Ralph Manheim, New York, Pantheon Books, 1964, 226
- 66 Theodor Adorno, op cit, 27
- 67 Sir Reginald Blomfield and A. D. Connell, 'For and Against Modern Architecture', *The Listener*, 28 November, 1934, 886
- 68 Octavio Paz, *Alternating Current*, trans. Helen Lane, New York, Arcade Publishing, (1963), 1990, 161
- 69 Marshall Berman, op cit, 15
- 70 Donald McNeill, *The Global Architect: firms, fame and urban form*, London, Routledge, 2009, 102
- 71 Georg Hegel, *Phenomenology of Mind*, trans. A.V. Miller, (1807) Oxford University Press, 1977, 6
- 72 Jules Vallès, *Michel-Ange, Covielle et Rigolo*, Le Nain jaune, 24 février 1867, Pléiade tome I, 1975, 922
- 73 Lord Acton, *Lectures on Modern History*, London, Macmillan, 1906, 3
- 74 Sigmund Freud, *Five Lectures on Psycho-Analysis*, (1910) Read Books Ltd, 2014, Lecture 1, para 14
- 75 Henri Pieron, *L'évolution de la mémoire*, Paris, Flammarion, 1910, 332-3
- 76 Filippo Marinetti, *The Founding and Manifesto of Futurism*, Original publication in French: Le Figaro, Paris, February 20, 1909, trans. R.W. Flint, London, Thames and Hudson, 1973, 25

- 77 Le Corbusier, *The Decorative Art of Today*, [1925] trans. James I Dunnett, Architectural Press, London 1987, 142 & 180
- 78 Rafael Moneo, 'Building on History', *Architectural Review*, January 2018, 135
- 79 Bruno Latour, op cit, 68
- 80 Dean MacCannell, *The Tourist: a new theory of the leisure class*, University of California Press, 1999, 8-9
- 81 Bruno Latour, op cit, 69
- 82 Anthony Giddens, *The Consequences of Modernity*, Cambridge, Polity Press, 199, 177-8
- 83 Erich Mendelsohn, *Das Gesamtschaffen des Architekten*, Rudolf Mosse Buchverlag, trans. Michael Bullock Berlin, 1930, 7
- 84 Jürgen Habermas, op cit, 58
- 85 Umberto Boccioni et al, 'Manifesto of the Futurist Painters', 1910 trans. Robert Brain, in Umberto Apollonio, *Futurist Manifestos*, London, Viking, 1973, 25
- 86 Quoted in Renato Poggioli, *The Theory of the Avant-Garde*, Harvard University Press, 1968, 67
- 87 Agnes Heller, op cit, 183
- 88 Renato Poggioli, op cit, 82
- 89 Saint-Just, op cit
- 90 Walter Benjamin, 'The Work of Art in the Age of Mechanical Reproduction' (1935), in *Illuminations*, trans. Harry Zorn, London, Pimlico, 1999, 242
- 91 Walter Benjamin, *Reflections: essays, aphorisms, autobiographical writings*, trans. Edmund Jephcott, New York, Schocken, 1986, 162
- 92 Jürgen Habermas, op cit, 5
- 93 Personal note of presentation to London Advisory Committee of English Heritage, 1997
- 94 Hisham Elkadi, *Cultures of Glass Architecture*, Aldershot, Ashgate, 2006, 50
- 95 Patrik Schumacher, 'Parametricism', *The Architects' Journal*, May 6th 2010, 42-45
- 96 Reyner Banham, 'Space, Fiction and Architecture', *Architects' Journal*, 127, 7 April 1958, 557-579
- 97 'City of Science Fiction', *Shanghai Global Times*, September 19 2010
- 98 Keller Easterling, *Enduring Innocence: global architecture and its masquerades*, Cambridge, MA, MIT Press, 2005, 148-9



- 99 Henry-Russell Hitchcock, 'Foreword to the 1966 Edition', Henry-Russell Hitchcock and Philip Johnson, *The International Style*, New York, Norton, 1995, 23
- 100 Quoted in, Jürgen Habermas, 'Modernity – an Incomplete Project', in Hal Foster (ed.) *The Anti-Aesthetic, Essays on Post-Modern Culture*, New Press 1998, 4
- 101 Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge*, Les Éditions de Minuit, Paris, 1979, English edition, University of Minnesota Press, 1984, ppxxiv-xxv
- 102 Gianni Vattimo, *The End of Modernity: Nihilism and Hermeneutics in Post-modern Culture*, trans. J. Snyder, Oxford, Polity Press, 1988,
- 103 Jürgen Habermas, op cit, 5
- 104 Kenneth Frampton, 'Ten Points on an Architecture of Regionalism: A Provisional Polemic', (1987) in Vincent Canizaro (ed.), *Architectural Regionalism: collected writings on place, identity, modernity and tradition*, Princeton Architectural Press, 2007, 378
- 105 Marshall Berman, op cit, P36
- 106 Ulrich Beck, Anthony Giddens, Scott Lash, *Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order*, Cambridge, Polity Press, 1994, 176
- 107 John Gray, *Enlightenment's Wake: politics and culture at the close of the modern age*, London, Routledge, 1995, 101
- 108 Theodor Adorno, op cit, P32
- 109 Mike Featherstone, *Undoing Culture: globalization, postModernism and identity*, Thousand Oaks, CA, Sage Publications, 1995, 43-4
- 110 Robert Inglehart, *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*, Princeton University Press, 1997, 23
- 111 J-F Lyotard, op cit, 76
- 112 Henry-Russell Hitchcock and Philip Johnson, op cit, 101
- 113 John Gray, op cit, 167
- 114 Agnes Heller, op cit, 5
- 115 Quoted in, J. B. Bury, *The Idea of Progress: An Enquiry into Its Origin and Growth*, (1921) Honolulu, University of the Pacific, 2004, 282
- 116 Quoted in, Idem, 17-8
- 117 Mike Featherstone, 'Postnational flows, identity formation and cultural space', in Eliezer Ben-Rafael (ed.), *Identity, Culture and Globalization*, Leiden, Brill, 2002, 484-5

- 118 The term was popularised by the eponymous title of an essay by  
Isaiah Berlin in 1973
- 119 Friederich Hölderlin, *Hyperion, Sämtliche Werke, Grosse  
Stuttgarter Ausgabe, Vol III*, ed Friedrich Weisner, Stuttgart, Cotta,  
1943-85, 31
- 120 Oswald Spengler, *The Decline of the West*, trans. C.F. Atkinson,  
(1918), New York, Oxford University Press, (orig. published 1932)  
1991, 107
- 121 Idem, 366
- 122 Idem, 105
- 123 Idem, 415
- 124 T.S. Elliot, *Notes Towards the Definition of Culture*, London, Faber  
and Faber, 1949, 19
- 125 Theodor Adorno, *Cultural Criticism and Society*, Prisms, trans.  
Samuel and Shierry Weber, Cambridge, Mass. MIT Press, 1967, 19
- 126 Rachel Carson, *Silent Spring*, Boston, Mass., Houghton Mifflin.  
2002 (40th ann. edn), 12
- 127 Peter J. Taylor, op cit, 127-8
- 128 James D. Kiras, 'Terrorism and globalization', in John Baylis and  
Steve Smith (eds.): *The Globalization of World Politics: an  
introduction to international relations*. Oxford, Oxford University  
Press, 2001, 485
- 129 Manuel Castells, *The Power of Identity*, London, Blackwell, 2004,  
19
- 130 Hans Reis (ed.), Kant, *Political Writings*, trans. H. B. Nisbet,  
Cambridge, Cambridge University Press, (14th edn.) 2003, 51
- 131 Quoted by Arthur Herman, *The Idea of Decline in Western History*,  
New York, The Free Press, 1997, 25
- 132 William Carey, *An Enquiry into the Obligations of Christians, to use  
Means for the Conversion of the Heathens in which the Religious  
State of the Different Nations of the World, the Success of  
Former Undertakings, and the Practicability of Further  
Undertakings, are Considered*, Leicester, 1792
- 133 Elder J (ed), *The Letters and Journals of Samuel Marsden*, 1965-  
1936, Dunedin, Coulls, Somerville, Wilkie, 1932, 60
- 134 Dipesh Chakrabarty, *Postcoloniality and the Artifice of History:  
Who Speaks for 'Indian' Pasts?* Representations, 32, winter 1992,  
20-21
- 135 Jyoti Hosagrahar, *Indigenous Modernities: Negotiating  
Architecture and Urbanism*, London, Routledge, 2005, 1
- 136 Ronald Nitzen, *A World Beyond Difference: cultural identity in the  
age of globalisation*, London, Blackwell, 2004, 147

- 137 Pankaj Mishra, *Temptations of the West: how to be modern in India, Pakistan and beyond*, London, Picador, 2006, 117
- 138 Iain Jackson, Soumyen Bandyopadhyay, 'Authorship and Modernity in Chandigarh: the Ghandi Bhavan and the Kiran Cinema designed by Pierre Jeanneret and Edwin Maxwell Fry', *The Journal of Architecture*, Vol 14 no 6, 2009, 706
- 139 Mark Crinson, 'Singapore's moment: critical regionalism, its colonial roots and profound aftermath', *The Journal of Architecture*, Vol 13, no 5, 2008, 592-3
- 140 <http://uk.archinect.com/features/article/100175622/a-newnature-interview-with-ma-yansong-of-mad-architecture?ukredirect>
- 141 Talcot Parsons, op cit, 226
- 142 Idem, 215
- 143 Michel-Rolph Trouillot, 'The Otherwise Modern: Caribbean Lessons from the Savage Slot', in Bruce M. Knauf (ed.), *Critically Modern: Alternatives, Alterities, Anthropologies*, Bloomington, IN, Indiana University Press, 2002, 220
- 144 Immanuel Wallerstein, 'The National and the Universal: Can There Be Such a Thing as World Culture?' in Anthony D King, (ed.) *Culture, Globalization and the World System*, London, Palgrave, 1991, 104-5
- 145 Yunxiang Yan, 'State Power and the Cultural Transition in China,' in Peter L Berger and Samuel P Huntingdon (eds.), *Many Globalizations: Cultural Diversity in the Contemporary World*, Oxford, Oxford University Press, 2002, 34
- 146 Tu Weiming, 'Confucian' East Asia and modernity', in Eliezer Ben-Rafael (ed.), *Identity, Culture and Globalization*, Leiden, Brill, 2002, 113
- 147 Peter J. Taylor, op cit, 127-8
- 148 Jyoti Hosagrahar, op cit, 6
- 149 As endnote 31
- 150 Michael Gazzaniga, *The Mind's Past*, Berkeley, CA, University of California Press, 2000, 170

# V

## MEMORY

Memory is the treasury and guardian of all things  
Cicero, *De Oratore*<sup>1</sup>

### 1. Memory Is All We Have

In previous chapters we have examined the significance of memory in all our activities. On the assumption that there are no eternal principles on which to anchor our vision of the world, and that there are no Platonic ideal forms located in a cognitive heaven to which we can refer, our only reality is our perception of phenomena in time. In this perception, there is no definite future, the present is an instance (or possibly immediate memory and prediction clustered around the present moment), and the past is the only reality that we have. For human understanding, the past only exists as a memory.

There are things that have survived from the past, but these can only be experienced in the present to stand as records from the past and so provide a touchstone for memory. Our essential anticipation of the future can only be based on our experience of the past and how this has been selectively retained in memory.

The experience of the present moment, how it is seen, and how we move forward from it, are all based on memory. Memory is our only mental connection to time, it is the

primary reference in our comprehension of the world. This is the conclusion to which our analysis in the previous chapters has taken us. It is appropriate to finish this book on how memory shapes our perception of things and so how memory should be reflected in architecture and urban design.

## 2. Architecture and Memory

As memory has, quite obviously, a central role in human understanding and, as the design of architecture and urban places are phenomena intended above all for human understanding, it is perhaps surprising that many architects and urban designers have very little to say about it in their work. It may be that it is simply taken for granted or that the terminology is unfamiliar. More substantially, as Thomas Fisher, former Dean of Architecture and Landscape Architecture at the University of Minnesota and editor of *Progressive Architecture*, has observed in education and publication, ‘many architects try to forget the past, especially their own past before becoming architects, or the past of their clients. It is as if with new buildings should come new people, without memory.’<sup>2</sup> The idea that memory is an inhibition to modernity and creativity goes back the Enlightenment. In 1772, the Marquis of Chastellux encouraged the rational reader ‘to obliterate, as much as possible, all old ideas to raise more quickly the edifice of reason on the ruins of opinion’.<sup>3</sup> This ‘new view’ has survived to the present day and is described by the American cultural historian, David Gross: ‘to be creative one would be advised to jettison old modes of thinking or old forms and frameworks in order to achieve a kind of “second naïveté” out of which creative expressions might come. ... which enables one to see, grasp, and surrender to what is unique in the present moment, and to do so unimpeded by memories ... left over from the past.’<sup>4</sup>

Contemporary architects do, however, from time to time make references to memory but these are often of a fairly general nature. The Swiss architect, Peter Zumthor, describing how he works, says, 'All is recounting a long, long history for everyone, not only for architects. Therefore it's very normal to work with memory.'<sup>5</sup> The Dutch star architect, Rem Koolhaas, discussing the role of architecture in the modern world, believes that, 'we were actually misplaced to deal with the present, but what we offer the present is memory.'<sup>6</sup> References occur from time to time at a more everyday level. For example, and curiously, in 2019 the assessors of a new house in southern England, Nithurst Farm, in their acclamation for a major professional award, believed that an ambiguity between modernity and tradition meant that it was, 'above all, a project about memory'.<sup>7</sup>



1. *Casa da Música, Porto, Portugal, Rem Koolhaas OMA, 2005. Koolhaas believes that 'what we offer the present in memory'.*

Nonetheless, the principle that architects work in response to some background based on people's recollection of a place is often accepted. When the Portuguese architect, Álvaro Siza, says, 'As identity comes from relationships, from what is around, and by that I mean roots – the roots of identity, of community. And from there comes the importance of preservation in architecture. To invent, we need to maintain the connection, the roots,'<sup>8</sup> although there is no direct reference to memory, the meaning is much the same.

When the objective of the building or place is memorialisation or commemoration, on the other hand, the architects of the projects have a great deal to say about memory. The British-Ghanaian architect, David Adjaye, for example, in discussing his National Museum of African American History and Culture in Washington DC, tells us that 'It's about architecture, but also about memory and history.'<sup>9</sup> In an interview for a 2019 London exhibition, 'Making Memory', following his competition win for the London Holocaust Memorial, he describes his architecture 'as a way to make a mark, to mark a moment in a monumental way. It's about memory, emotions. Form can be related to narrative and a sense of place'.<sup>10</sup>

The Polish-American star architect, Daniel Libeskind, following his definitive early project, the Jewish Museum in Berlin, has become the architect of choice for many memorial or museum buildings, including the master-planning of the rebuilding of the World Trade Centre site in New York. He gave the competition entry the title, 'Memory Foundations'. His 2016 winning entry for the Holocaust Memorial of Names in Amsterdam has a ground plan which takes the form of the four-letter Hebrew word meaning 'in memory of'.

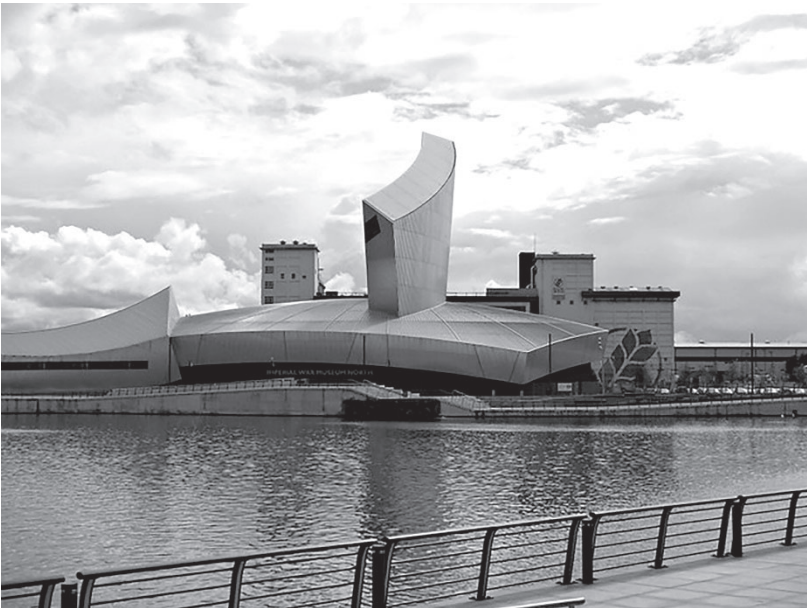
Libeskind, who built his first project at the age of 52, began his career as a teacher and author and tends to give cerebral descriptions of his work. He has, as he told an interviewer when asked about memory in his work, 'thought about this quite a lot'.<sup>11</sup> He believes that 'without memory we would not know where we are going or who we are. So memory's not just a little sideline for architecture, it's the fundamental way to orient the mind, the emotions, the soul.'<sup>12</sup> For Libeskind, memory is much more than what is already in the minds of the users and observers, 'memories are not only in the past, one has to build memory that somehow does not exist or is about to vanish.'<sup>13</sup> He seeks to make a connection with the memory of the people for whom the memorial or building has been designed as well as the memory of the site, 'It's about telling a story. ... Unless the building or memorial communicates something then people won't identify with it. Memory is so important and so vulnerable in our culture. Architects should delve into the depths of a place and try to express the memory.'<sup>14</sup>

This highlights three of the problems of dealing with memory in architecture.

Firstly, that anything that acts as a memorial, a commemoration or monument is to do with memory is obvious. All the words themselves are derived from memory ('monument', the less obvious example in English, is from the Latin *monumentum*, a memorial structure). Saying that these are concerned with memory takes us nowhere new. Even if there is no memorial function or particular intention to stimulate memory, as the French philosopher, Paul Ricoeur, says: 'Places inhabited are memorable par excellence. Declarative memory enjoys evoking them and recounting them, so attached to them is



memory. As for our movements, the successive places we have passed through serve as reminders of the episodes that have taken place there.’<sup>15</sup> Everything, unless completely unfamiliar (almost impossible even with the most radical architecture) is likely to lead to the recollection of something. The memories so stimulated are in the first instance individual and, if there is no communal structure to them, to all intents and purposes arbitrary.



2. *Imperial War Museum North, Manchester, England, Daniel Libeskind, 2002. The building is designed as a globe shattered into fragments and reassembled, an important narrative theme difficult to understand without a written description.*

The American star architect, Peter Eisenman, when pressed for some narrative meaning in an apparently random series of upright blocks in his *Memorial to the Murdered Jews of Europe* in Berlin, resolutely refused to

give one. He recognises that he cannot control the memories that are evoked while walking amongst these structures. He ‘wanted the footsteps on these particular cobbles to resonate with other footsteps, whether they be marching Nazi soldiers, goose-stepping in Berlin, where the people walked to trains to take them to Auschwitz, or *whatever kinds of memories that this kind of sound and experience could call up*’<sup>16</sup> (my emphasis). However much we may refer to a building as ‘a memory’, this is a metaphor, a building is an inanimate object. In the first instance, memory only resides in the individuals who experience the building.

The second problem is the narrative, to which both Adjay and Libeskind refer. A narrative, the telling of a story, has (in architectural rather than literary terms) to be understood by its users, observers and visitors. As Libeskind is quoted as saying, quite correctly, above, ‘Unless the building or memorial communicates something then people won’t identify with it.’ In order to communicate, the narrative has to be understood and, to follow the analogy with literature, to be in the language of the user, observer and visitor. We can take an example of Libeskind’s narrative from the description on the website of his Imperial War Museum North in Manchester, northern England, where we learn that: ‘The design concept is a globe shattered into fragments and then reassembled. The interlocking of three of these fragments—representing earth, air, and water—comprise the building’s form. The Earth Shard forms the museum space, signifying the open, earthly realm of conflict and war.’<sup>17</sup> Or we can go to the description of the Holocaust Memorial of Names in Amsterdam from Studio Libeskind’s website of the ‘four volumes that represent the letters in the Hebrew word לזכרון meaning ‘In Memory of’.<sup>18</sup> These narratives must have

inspired the architect but they are almost impossible to divine without foreknowledge: the complete globe of the shattered globe is not at all evident; the Hebrew word can only be seen from the air or from reading a plan and then only if you read Hebrew – not in common currency in the Netherlands. Like designs of the many - not necessarily memorial - buildings that are based on personally-derived metaphors, these may be interesting concepts, but they do not constitute a narrative available to the public without reference to another medium – usually written text. There is no communication of memory from the architect through his architecture to his public if it relies on a form that cannot be read in its own right by that public. If it is just the building that is experienced, the individual will make of it what they will and with whatever residue or framework of memory they have.

This in turn leads to the third problem, whose memory is represented by the narrative? Memorials, commemorative buildings or museums displaying historical artefacts are not gravestones designed as reminders for one family, they are for a wider community. The intention behind these expensive forms of display could be diverse. Holocaust memorials, of which there are many, are often explicitly erected to ensure that no-one forgets these terrible events on the basis that, as in the much-quoted 1905 aphorism of the Spanish-American philosopher George Santayana, 'those who cannot remember the past are condemned to repeat it'.<sup>19</sup> They may also be commissioned to make a political point, such as the many monuments to military victory, or to celebrate and cement community or cultural identity, however small, from national museums to museums for specialist interests - such as postal or railway museums. Any building erected as a museum or a memorial for the benefit of the public, either represents

some shared memory of that public, or intends to present to that public a particular memory which they do not have, but are encouraged to share.

### 3. Architecture as the Memory of Others

No one building or space can encapsulate all the shared memories of any public, this would be too complex. There will, therefore, have to be a choice of which communal memory or memories are to be evoked or encouraged by the design of a particular monument and, consequently, which are to be ignored or even forgotten. As the American historian, Allan Megill, points out, 'Almost invariably, when historical understanding is described as "remembering" we can infer that an attempt is being made to promote one or another presumably desirable collective identity in the present.'<sup>20</sup> This choice will be a political act to which the architect or urban designer will be an accomplice and, however much design rhetoric is put about, will be an agent rather than an instigator. Hubristic attempts by architects to claim the lead in the symbolic content of memorials, however, can give them some difficulties as the profession simultaneously claims moral civic responsibility. As the German architect, Günter Behnisch, says, 'The task falls to independent architects [that is, not employed by the state], therefore, to ensure that architecture remains tied to social conditions and goals, and it is here that they face their political responsibilities.'<sup>21</sup>

Modern architects from liberal democracies can work on buildings that are intended to cement the memories of oppressive regimes. In 2006, the British star architect, Norman Foster, built a giant pyramidal structure for the new city of Astana (personally planned by the dictator of Kazakhstan, Nursultan Nazarbayev) as, what Oliver

Wainwright in *The Guardian* newspaper calls, a ‘city-sized monument to himself’.<sup>22</sup> It is, perhaps ironically, named the ‘Palace of Peace and Reconciliation’ in a country where, according to Human Rights Watch in 2015, ‘Government critics ... remained in detention after unfair trials. Torture remains common in places of detention.’<sup>23</sup> Foster’s office claims, however, that, ‘When, on paper, you’re designing a palace to encourage peace between world religions - that sounds pretty honourable.’<sup>24</sup> Another star architect, the late Zaha Hadid, came close to a more overtly oppressive regime in Libya. A design for an iconic conference hall for the Gadhafi regime, conceived as a showpiece venue for major political gatherings and public events, was due to commence one year before the overthrow of the dictator in 2011 which led to the shocking revelation of the depths of his corrupt and oppressive political system.



3. *Palace of Peace and Reconciliation, Astana, Kazakhstan, Foster and Partners, 2006. Architects are not always in control of the meanings and associations attached to their buildings.*



4. Casa del Fascio (now Palazzon Terragni), Como, Giuseppe Terragni, 1932. Post-war admiration for the style of the building allowed its original intention - to celebrate fascism - to be forgotten.



5. Basilique Cathédrale Sainte-Cécile d'Albi, Albi, France, begun in 1282. The association with the cathedral with the slaughter of a million heretics is forgotten while its architecture is admired.

The dilemma of an architect's association with the memories and meanings intended to be represented by their buildings is well-established. Albert Speer is routinely condemned for his work for the German fascist regime, whereas Giuseppe Terragni is rarely condemned for his 1936 Casa del Fascio in Como, which was clearly and specifically designed as monument to the Italian fascist regime. The subsequent acceptance of Terragni as a contrary to Speer is based more on the style of his architecture than the politics promoted through the building. The quite obvious political association of the Casa del Fascio has undergone a programme of organised forgetting: the building has been re-named Palazzo Terragni and the original photographs of the building, with the large blank wall on the right-hand side containing a giant portrait of the dictator, Benito Mussolini, are rarely illustrated. A conspiracy to forgive the clearly intended meaning of a building, just because there is some continued identity with a style is, however, relatively rare. Simple amnesia through historical distance is more common. For example, Albi Cathedral in Midi-Pyrénées of France is a remarkable thirteenth century monument and the largest brick church in the world. It no longer seems to matter that it was built to commemorate the success of the Abligensian crusade, which entailed the slaughter of an estimated million believers in a dualist anti-clerical sect. When the wish to forget applies to more recent memories, the outcome is often demolition. The two *Ehrentempel* honour temples in Munich, erected in 1935 to honour the memories of fallen heroes of the Nazi party, were symbolically demolished by American forces twelve years later and their materials re-used for civic reconstruction.



#### 4. Modernism, Forgetting and Remembering: Post-War Germany, a Case Study

Post-war Germany undertook a systematic exercise which combined forgetting and remembrance of victims, as well as setting out to re-shape national identity with specific and symbolic acts remembering an imagined prelapsarian past – some of which was expressed through architecture.

Many acts of demolition took place in the post-war years. The objective is made clear by a directive issued by the occupying US forces in Germany in 1946 that, ‘any monument or memorial intended to preserve and keep alive the German military tradition, to revive militarism or to commemorate the Nazi Party, or which is of such a nature as to glorify incidents of war ... must be completely destroyed and liquidated by 1 January 1947.’<sup>25</sup> On the other hand, some years later holocaust memorials were erected as a symbolic corrective to the murderous activities of the defeated regime, and we have made reference to these above. There are other memorials to victims, such as, in Berlin, the Memorial to the Murdered Members of the Reichstag outside the reconstructed Reichstag; the Topography of Terror on the site of the former Gestapo and SS Headquarters; and in Baden-Württemberg, the Grafeneck Euthanasia Centre in Grafeneck Castle, an organisational centre of the Third Reich’s euthanasia programme.

The use of architecture to facilitate the political act of forgetting in Germany is centre-stage in the more widespread re-writing of 1920s and 30s architectural history. More than any other country, Germany wanted to forget what happened in the decade before the Second World War. The Wilhelmine period that led to the First World War was also something best forgotten. As one of



the principal post-war German architects, Egon Eiermann, who had practiced under the National Socialist government, said in 1958: 'This country is burdened with so much guilt that it is very difficult to find the right tone.'<sup>26</sup>



Bundesarchiv, Bild 183-2003-1217-501  
Foto: o. Ang. 124, April 1938

6. *Ehrentempel, Munich, Paul Ludwig Troost, 1935. Monuments celebrating the National Socialist government were quickly removed after the war to try to erase the memory of Nazi ideology.*

Germany was, however, home to some of the most significant pioneers of Modernism which flourished in the political and economic roller-coaster of the short-lived Weimar Republic, overturned in 1933 when Hitler was elected as Chancellor. Modernism, which was known at the time as *Neues Bauen*, New Building, was a minority, but radical and social reforming architectural movement. Its origins in a democratic state, and its antipathy to historical precedent - which distanced it from both Wilhelmine architecture and the later preferred style of the

defeated government - made it the ideal model to present Germany anew. *Neues Bauen* architecture could promote Germany as a nation that was international instead of nationalist, and radically modern instead of socially retrogressive. Its international credentials were enhanced by some of its principal exponents who had left before the war. In particular, Mies van der Rohe and Walter Gropius, who were not refugees but emigrants, had become influential in the USA where, in 1932, New Building had been re-named 'The International Style'. In 1959, the German consul in Chicago described Mies van der Rohe's career in the 1920s as an attempt to 'achieve ... a new lasting German culture'.<sup>27</sup> As a symbol of the revival of that culture, and after a campaign by the journal *Bauwelt* to bring back Mies van der Rohe to design *something*, he was given the commission for the New National Gallery in Berlin in 1961.

The promotion of Modernism as the up-to-date style for the new Federal Republic of Germany from 1949 was not just a symbolic forgetting of the defeated regime through its architecture, it also involved forgetting aspects of architectural history: that Modernism was a minority and elite architectural style; that the traditional architecture favoured by the National Socialists had also been the preferred style for the victorious powers; that the National Socialists had not banned Modernism and had supported it in certain contexts; and that its pioneers had engaged with the National Socialist government. As the American architectural historian, Kathleen James-Chakraborty, points out, 'neither German nationalism in general nor National Socialism in particular were anti-modern. This ... has had little impact ... on the way in which many Germans continue to portray modern architecture as inherently anti-fascist.'<sup>28</sup> The German cultural anthropologist, Aleida Assmann, sums

it up: 'A reconstruction of identity always entails a reconstruction of memory.'<sup>29</sup>



*7. Weißenhofsiedlung, Stuttgart, Germany, Mies van der Rohe, Le Corbusier, Walter Gropius, Bruno Taut, Hans Scharoun and others, 1927. Early modernist architecture was explicitly remembered as post-war Germany dissociated itself from its more recent past.*

Forgetting the immediate past was, therefore, combined with remembering the more distant past. The contradiction of the assumed modernity of pioneering Modernism was highlighted in 1958 by the designation of what remained of the Weissenhof Estate in Stuttgart, planned by Mies van der Rohe and with buildings by Le Corbusier, Bruno Taut, Walter Gropius, Peter Behrens and many other New Building luminaries, as an historic monument only thirty one years after its construction. Some years later, in 1988, the establishment of DOCOMOMO, (DOCumentation Of the MODern MOVement), an organisation dedicated to recording Modernist buildings, finally and without doubt confirmed Modernism as an historic style. The historical

reversal of recalling an architecture more than half a century old and naming it simply 'modern', while at the same time dismissing another more recent architecture that was clearly more modern in any temporal sense ('Simple' or 'Ordinary' modernity as defined in Chapter IV) was not exclusive to Germany. This historical reversal is based on stylistic preference and linguistic manipulation. Architectural histories of the minority pre-First-World-War Modernism abound; those of contemporary, later and much more numerous modern traditional architecture are relatively few. This skews and affects the historical vision of the period, particularly in architectural education and consequently in the culture of the profession. For example, Zaha Hadid stated in 2008, 'One of the tasks I set myself was the continuation of the unfinished project of Modernism, in the experimental spirit of the early Avant-garde.'<sup>30</sup> The Valencian architect, Ramón Esteve, said in 2016: 'I am indubitably influenced by the great architects of the 20th century, especially Le Corbusier, Frank Lloyd Wright and Mies van der Rohe.'<sup>31</sup>

## **5. Selective Remembering, History and Building Preservation**

Forgetting is the essential accessory of memory, what Paul Ricoeur calls, 'the shadowy underside of the bright region of memory'.<sup>32</sup> Remembering is inevitably selective and so will always be a distortion of the past, inasmuch as the past is constituted of the impossible complexity and extent of everything that has happened or been experienced. This is the necessary fact of all historical analysis, as the eminent British diplomat and historiographer, E. H. Carr, said, 'from the infinite ocean of facts the historian selects those which are significant for his purpose'.<sup>33</sup> Or, as the novelist Penelope Lively says: 'History is a slippery

business, the past is not a constant but a landscape that mutates according to argument and opinion.’<sup>34</sup> It follows that history, as with all forms of recorded memory, entails forgetting (or possibly just ignoring) as much as remembering. The nineteenth century Scottish philosopher, Thomas Carlyle, sets out the relationship between the memory and forgetting (or in the vocabulary of the time ‘oblivion’): ‘Memory and Oblivion, like Day and Night ... are necessary for each other’s existence. Oblivion is the dark page, whereon Memory writes her light-beam characters and makes them legible; were it all light, nothing could be read there, any more than if it were all darkness.’<sup>35</sup>

Beyond personal remembering and forgetting, the decision of what to remember and what to forget in the symbolism of a building or a place is a social or political act. As all that we have is our relationship with our memories to direct our future actions, both remembering and forgetting will affect our decisions about how to manage our future. So it is with our relationship with architecture or urbanism – which, for designers, is always a social and communal activity - as what we choose to remember and forget will affect how we build today. It goes further than this. Our relationship with our entire built environment, existing or proposed, is shaped by memory and forgetting. Decisions about what we wish to recall and what we are prepared to forget direct our attitudes to our existing places. From this we will choose those buildings and places that we wish to retain and conserve. We will also choose those we are prepared to forget and thereby make them available for remodelling, redevelopment, decay or demolition.

Political acts of erecting or conserving buildings or places to fix public memory, and the demolition of buildings and places to attempt to erase public memory, are uneasy bedfellows. As Aleida Assmann, says: ‘In order ... to

remember anything one has to forget; but what is forgotten need not necessarily be lost forever. The canon stands for the active working memory of a society that defines and supports the cultural identity of a group. ... It is highly selective and built on the principle of exclusion.'<sup>36</sup> As with all political conditions, there will be opposing views and the conservation of a building or place that represents the cultural identity of one group can be opposed by another group, either because there is a willingness, or even a will, to forget, or because there is a wish to suppress or eliminate the identity of the other group. At its extremes, from the knowledge that, as Assmann says, 'what is forgotten need not necessarily be lost forever,' the political will to suppress or eliminate the identity of a group is easily translated into the forcible and permanent removal of buildings. If further evidence were needed of the power of buildings and places to represent the memory and so the identity of communities, it is only necessary to witness their destruction in warfare.

## 6. Destroying Buildings as Culture

The destruction of places of worship, palaces, castles and cities that go beyond conquest to ethnic annihilation are the stuff of ancient and modern history. The Iliad, the founding work of literature of European civilisation, ends with the elimination of the city of Troy in 1184 BCE so completely that it would not be found again for more than 3,000 years. In 689 BCE, the ruler of Assyria, Sennacherib, suppressed his Babylonian subjects by the destruction of their capital. Appian of Alexandria's description of the Roman siege and demolition of Carthage in 146 BCE, with the objective of extinguishing Phoenician civilization, makes a direct comparison with the loss of Troy.<sup>37</sup> Chinese warfare and invasion led to the loss of some of the world's

most populous cities of their time. The ancient capital of the Han Dynasty, Luoyang, in Henan Province, was destroyed in 189 CE and similarly Chang'an, in Shaanxi Province, in 904 CE. Medieval Mongol invasions were accompanied by massacres and the complete devastation of cities. Urgench, on the Silk Road, the ancient capital of the Persian Khorezm culture and one of Central Asia's grandest cities, was razed and abandoned in 1221. As recently as 1565, the Indian city of Vijayanagara in Karnataka, reputedly the second largest city in the world after Beijing, was laid waste and deserted following the defeat of its ruler by an alliance of sultanates from the north. The modern identity of the Jewish people is, in part, defined by the two great destructions of the Temple in Jerusalem, followed by the subsequent exiles, firstly of the Babylonians in 586 BCE, and then the General (later to be Emperor) Titus in 70 CE. These events are explicitly remembered in the last words of the celebration of the Seder, 'Next year in Jerusalem'.

Campaigns of enforced forgetting continue to this day and recent events document the continuing significance of places and buildings in cultural identity, both from aggressors and the victims. Robert Bevan, in his 2006 book, *The Destruction of Memory: Architecture at War*, sets down the motivation for modern attempts to extinguish cultural identity through demolition: 'It is the imperative to eradicate not just individuals but to eliminate a group and its collective memory and identity that makes widespread destruction a recurring tactic whenever wars against minorities are fought, whether driven by Nazi racial ideology, Turkish state building or Serbian expansionism. Who remembers the Armenians? Their narrative is now as fragmentary as their monuments; the material evidence of



their experience is disappearing. Memories are still being erased.’<sup>38</sup>



*8. Hampi, part of the city of Vijayanagara in India, one of the largest cities of the world at the time of its destruction and dispersal of its population in 1565 CE.*

In the Second World War, there was an attempt to undermine the morale of enemy populations by bombing the buildings with which they would most identify, demolition to systematically destroy cultural identity, and destruction as a legacy of defeat.

There was some doubt in Britain, raised in Parliament, as to whether Allied bombing of German cities was for military reasons or, in the case of historic cities such as Nuremburg, ‘merely for its wanton sake’.<sup>39</sup> There was less doubt in Germany about British intentions following carpet



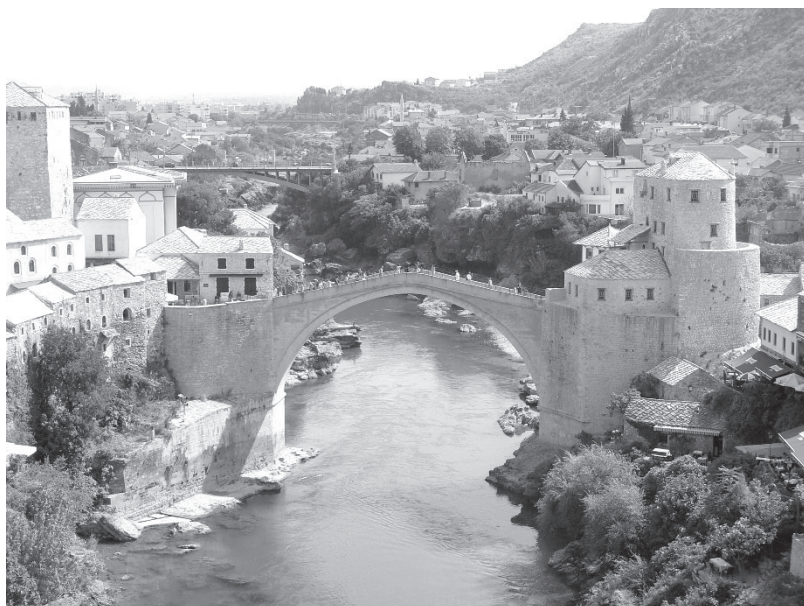
bombing of the historic cities of Lübeck and Rostock. This led to a statement in 1942 by Baron Gustav Braun von Stumm of the German Foreign Office: 'Now the Luftwaffe will go for every building that is marked with three stars in the Baedeker,'<sup>40</sup> (Baedeker being the definitive pre-war cultural guidebook). Although Joseph Goebbels, Nazi Minister of Propaganda, tried to deny this policy, he records in his diary, 'Like the English, we must attack centres of culture'.<sup>41</sup>

As a political party based on the concept of racial superiority, the German Nazi government was not hesitant about the obliteration of the memory and identity of 'lesser' races. The systematic civic persecution of the Jewish population came to a climax with *Kristallnacht* in 1938, when Jewish property, and in particular synagogues, were attacked and burnt. This was a precursor to the 'final solution' when all memories of the Jewish people were to be eliminated. Amongst the occupied countries, Poland was singled out for attention as a territorial beneficiary of disputed parts of Germany following defeat in 1918, as well as its large ethnic German population. In 1939, Adolf Hitler prepared 'to send to death mercilessly and without compassion, men, women, and children of Polish derivation and language.'<sup>42</sup> Once conquered, the ancient capital, Warsaw, was to be rebuilt as a German provincial city with a satellite settlement for Polish service workers. Eighty five percent of the city was systematically razed before the end of the war. As Germany retreated, Hitler ordered cultural revenge on Paris, instructing the military governor to leave no religious building or historical monument standing. This order was never carried out. The Yugoslav wars of 1991 to 2001 provide particularly clear and poignant evidence of the destruction of buildings as a deliberate act of ethnic cleansing beyond any military

objective. These wars centred on the break-up of the Yugoslav federal state into culturally and religiously distinct nations in the context of a complex intermixture of historically hostile ethnic groups. Muslim communities were particularly vulnerable as Christian Orthodox Serbia pushed to create a greater Serbia. The largely Muslim town of Foča, for example, which was in Serbian territory and offered no logistic threat, was subjected not only to expulsions, rape and massacre, but had its rich heritage of Muslim buildings destroyed. This process was repeated throughout the war in other towns, such as Vukovar, Sarajevo and Mostar. As Robert Bevan says:

... set within the context of the wider destruction across Bosnia, Croatia and subsequently in Kosovo there can be no doubt as to the systematic tactics being employed. Ethnic cleansing was accompanied by a policy of cultural cleansing to render it permanent and irreversible. It was directed at collective memory, shared history and attachment to place and the built environment. It was designed to eradicate the historical presence as well as the contemporary lives of the target community.<sup>43</sup>

The pain of these actions was symbolised internationally by the destruction of the famous sixteenth century Mostar Bridge in 1993. Shortly afterwards, the Croatian author, Slavenka Drakulić, wrote her *Mostar Bridge Elegy*. Comparing a photo of a murdered Muslim woman and the ruins of the bridge, she wrote, 'Why do I feel more pain looking at the image of the destroyed bridge than the image of the woman? Perhaps it is because I see my own mortality in the collapse of the bridge, not in the death of the woman. We expect people to die. We count on our own lives to end ...The bridge was built to outlive us ... it transcended our individual destiny. A dead woman is one of us – but the bridge is all of us.'<sup>44</sup>



9. *The Mostar Bridge reconstructed. The destruction of the 16<sup>th</sup> sixteenth century bridge in 1993 by Croat militias was symbolic of the rupture of inter-community relations in the Yugoslav Civil Wars and its reconstruction a symbol of reconciliation.*

## 7. The Significance of Destruction and Reconstruction

The destruction of individual buildings as acts of terrorism or propaganda is often based on the selection of buildings that are recognised symbols of the cultures under attack. This is, however, not the same as an attempt to erase the memory of a community or people through the obliteration of their built heritage. On the contrary, the act of terrorism itself is intended to be remembered, not only through its violence and surprise, but through the significance of the building or buildings that have been struck. The additional memory that will thereby be attached to the building is part of the motive of the attack.

In the 1880s, the Irish republican Fenians chose symbolic buildings in London as bombing targets to maximise their impact on the population, these included: the Tower of London, the House of Commons, the Carlton Club, London Bridge and Scotland Yard. This was to draw attention to their cause, not an attempt to eradicate British culture. The Twin Towers in New York were annihilated in 2001 as symbols of American capitalist world dominance, and, by that act, buildings of no great architectural merit have been *fixed* in the memory of the world. Full analysis of the motives behind the widely publicised dynamiting of ancient ruins and vandalism of statues by the Islamic State has yet to be made. This may indeed have been motivated by a desire to eliminate all memory of non-Muslim civilisations as an early act of planned world dominance, but it may also have been more of a calculated affront to non-believers and a demonstration of power justified by religious belief.

The responses to the destruction of buildings when the cultures which they represent are not dispersed and remain or return, or when the threat of terrorism is over, are various. Generally, there is an attempt to restore, reinforce or add another dimension to the memories that the buildings originally represented. The remains of the buildings can be turned into memorials, such as the shells of bombed out churches in Britain and Germany. New memorials can be erected, such as the plan-form of the Twin Towers as a waterfall with inscribed names of the victims on the perimeter. Lost buildings or monuments can be re-built.

The reconstruction of buildings, places or monuments can be undertaken using whatever verified fallen material is available. This is called “anastylosis” and has been an accepted practice in archaeological sites for some time and comprehensive reconstruction can take place when

there is good evidence of the original form and the location of the fallen material. The Frauenkirche in Dresden had remained as a memorial for 45 years as a pile of rubble following its destruction in the notorious bombing raids in 1945. Following German reunification, it was 'rebuilt using its original structural substance to the largest extent possible'.<sup>45</sup> Versions of the lost building can be built on top of what has remained. Significant parts of Königsberg Cathedral in Kaliningrad were left standing following heavy bombing in 1944 (the tomb of the philosopher, Immanuel Kant, probably saved it from complete demolition) but the brick rubble was used for other reconstruction projects. The cathedral was rebuilt in the 1990s on the surviving remains with new materials.

Complete reconstruction of whole towns or districts, based on whatever evidence is available, is also possible. This is more controversial. We can compare the old city of Warsaw, the rebuilding of which was begun immediately after the Second World War and completed in 1953 (with work continuing beyond this date and the rebuilding of the Royal Castle completed in 1974), with the construction of Colonial Williamsburg in Virginia, which was begun in 1927 and continues to this day.

Colonial Williamsburg was a project, funded by John D. Rockefeller Jr., to try to restore scarce remains of an eighteenth century revolution-period town and recreate it as it was at the symbolically significant time of the American War of Independence. Today there are about 500 buildings, 88 of which retain at least some surviving traces of the original structures. Some of the most important buildings were imaginatively recreated on sparse evidence. It advertises itself as an 'eighteenth century city' and

various attempts have been made to give it this character, including costumed guides and actors.



*10. The Twin Towers in Downtown Manhattan by Minoru Yamasaki and completed in 1974, never highly regarded as architecture, achieved permanent symbolic value through their destruction in the most infamous act of terrorism of the twenty-first century.*



The rebuilding of Warsaw was fortunate in that it was facilitated by the survival of a series of detailed survey drawings from the Polish Architecture Institute undertaken from 1922 onwards, and a number of late-eighteenth century paintings. However, the reconstruction is not a perfect copy of any period since decisions to modify the pre-war condition were taken as new information became available during excavation, and other selective modifications to plans and details took place. Nonetheless, the overwhelming impression is that of a city that had not been subject to comprehensive demolition. The reconstruction is a fully occupied and functioning city centre.



11. *The old city of Warsaw reconstructed following almost total destruction in the Second World War with the assistance of accurate pre-war surveys and earlier paintings.*

Both places have been subject to criticism for their falseness or lack of authenticity. *The Wall Street Journal* referred to ‘Disney-style antics’ at Williamsburg. Warsaw is called a ‘false memory’ by Robert Harbison in his book *Ruins and Fragments*.<sup>47</sup> Comparison with Disney

attractions is a common professional critique used against reconstructions, or any reference to history in new construction, and implies both fake-ness and bad taste. (This seemed to some to be confirmed by the construction of new traditional American town, Celebration, by the Disney Corporation.) Accusing a place of creating a ‘false memory’ is a pejorative comparison with false memory syndrome, a condition in which a person has memories that are factually incorrect but which they strongly believe. In an essay in 1991, the British critic, Peter Blundell Jones, links false memory to false history when he takes the view that a development by the leading British classical architect, Quinlan Terry, is ‘a false history [which] does violence to the public memory.’<sup>48</sup> These critiques confuse the falsification of history, a common enough phenomenon with the generation of memory.



*12. Colonial Williamsburg, from 1927 to the present, a part-accurate, but largely speculative, recreation of the town at the time of the American War of Independence.*



## 8. Memory and History

The difference between history and memory is set out by the French historian of memory, Pierre Nora: 'Memory and history, far from being synonymous, appear now to be in fundamental opposition. ... Memory is a perpetually actual phenomenon, a bond tying us to the eternal present; history is a presentation of the past.... Memory is blind to all but the group it binds. ... History, on the other hand, belongs to everyone and to no one, whence its claim to universal authority.'<sup>49</sup> Both individual and group memory, and history, are memory of sorts but, as Nora points out, they have different functions. Neither has an unsullied claim to authenticity, although historians professionally often claim it for history. As Aleida Assmann confirms, 'memory belongs to living beings with prejudicial perspectives; whereas history ... is *considered* to be objective and so without identity'<sup>50</sup> (my emphasis). The only true or authentic thing about the past is having been there, then it is a memory; memories require forgetting and are notoriously unreliable. History, however, is also a selective record of past events and the choice is controlled by those who make the records and, being highly selective, the record can be changed to suit the record keepers. There is no such thing as an authentic past in the present. As the historian, David Lowenthal, argues: 'No absolute historical truth lies waiting to be found; however assiduous and fair-minded the historian, he can no more relate the past "as it really was" than can our memories.'<sup>51</sup>

A place cannot be or have an inauthentic or false memory; buildings are inanimate, the only memory that can be false resides in the person or community that observes them. In observing an historic place at the present moment, however, there can be no 'true' memory as a factual recreation. An original observation will not be made

on a clean slate, it will be laid down in the context all the previous experience and culture of the individual observer. In seeking a particular memory at a later date, any number of recollections will be assembled on each occasion, each previous recollection will add to the assembly, making each recollection accumulative and unique. It matters not at all that some individuals may have inaccurate beliefs about what they are observing; all observers will bring to their recollections ideas and beliefs that have no measure of accuracy. As Aleisa Assmann points out, 'memory records moods and feelings that cannot be described in terms of facts.'<sup>52</sup> In the context of community identity, all that matters is that aspects of individual memories at any moment of recollection are understood to be shared and, in terms of buildings and places, shared in relation to the same buildings or places.

## 9. Reconstruction and Authenticity

Authenticity may be a chimera, and yet it is a persistent concern amongst architects and the administrators of built historic survivals. The problem can be illustrated by inconsistencies in attitude taken by the principal global conservation organisation, UNESCO (the United Nations Educational, Scientific and Cultural Organization) to two different cases of reconstruction: Warsaw and the Buddha statues of Bamiyan in Afghanistan, blown up by the Taliban in 2001.

As we have seen above, the reconstruction of Warsaw was an attempt to recreate the lost city and, in this sense, can be said to be an attempt to falsify history; visitors can, and surely do, think that what they see is older than it is. It was, nonetheless, given the top UNESCO World Heritage Site status in 1980, the citation reads: 'the Historic Centre

of Warsaw has fully retained its authenticity as a finished concept of post-war reconstruction.<sup>53</sup> So it is authentically inauthentic.



13. Bamiyan Buddhas, central Afghanistan, 6<sup>th</sup> CE. Destroyed with explosives by the Taliban in 2001. A debate ensued on the principles of reconstructing with new materials.

Immediately following the blowing up and devastating fragmentation of the huge Bamiyan Buddhas, UNESCO considered the proposition that they could be rebuilt. The conclusion was unambiguous, 'A total reconstruction of either Buddha should not be considered ... such an act ... would nullify the meaning that the monument has assumed for humanity after its destruction.'<sup>54</sup> Paul Bucherer, the Head of the Afghanistan Institute in Basel, Switzerland, said, 'The last thing we want is to create Disneyland in Afghanistan.'<sup>55</sup> The Afghan Minister of Information and Culture was more positive, 'They need to be rebuilt as a

sign of our identity and a sign of our tolerance and our history.’<sup>56</sup> One of the villagers forced by the Taliban to place the explosives around the statues also wants them to be rebuilt: ‘Maybe if we did we might get our honour back.’<sup>57</sup> An international internet campaigning group, the *New 7 Wonders*, which sets out to democratise ‘global memory’, campaigned for their reconstruction, and its founder, Bernard Weber, said, ‘an act of international destruction cannot erase the memory of those things which are valuable to humanity and its heritage’.<sup>58</sup>

In the professional world of the conservation and preservation of buildings and places, there is clearly some debate and doubt as to what is history, what is memory, what is authentic, what is worth retaining to act as a touchstone for memory and what is identity. This debate spills out into the community, for whose memories and identity the conservation and preservation is intended.

## 10. Memory and Authenticity

The conservation and preservation of built heritage, in almost all countries, comes under the control of government or quasi-governmental agencies. These controls are all concerned with the damaging effects of the loss of buildings and places that are important for the identity and memory of the country or community in which they are located.

Sitting above all of these controls is UNESCO, which ‘seeks to build peace through international cooperation in Education, the Sciences and Culture.’ This includes, amongst its many other objectives, ‘engaging with the international community to set clear policies and legal frameworks and working on the ground to support

governments and local stakeholders to safeguard heritage'.<sup>59</sup> As a specialist United Nations agency, it has considerable influence on most national and local heritage policies. It published two key documents for its mission to safeguard heritage: the *Venice Charter* in 1965, which established universal guidelines for the conservation and preservation of built heritage, and the *Convention Concerning the Protection of the World Cultural and Natural Heritage* in 1972, which charged all UN members to institute administrative procedures to protect their heritage. In 1965, to assist in the promulgation of the objectives of the *Venice Charter*, the United Nations established ICOMOS as 'a non-governmental international organisation dedicated to the conservation of the world's monuments and sites.'<sup>60</sup> ICOMOS is 'dedicated to promoting the application of theory, methodology, and scientific techniques to the conservation of the architectural and archaeological heritage.'<sup>61</sup> The academic nature of this mission statement should be noted - it affects all the subsequent activities of ICOMOS. Most of the international guidance on heritage, from this time onwards, comes from ICOMOS which, although only in fact an advisor to UNESCO, assumes much of its authority.

UNESCO defines heritage as 'the legacy of physical artifacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations.' It goes on to define tangible heritage to include 'buildings and historic places, monuments, artifacts, etc., which are considered worthy of preservation for the future,' and states that, 'preservation demonstrates recognition of the necessity of the past and of the things that tell its story. Preserved objects also validate memories; and *the actuality of the object, as opposed to a reproduction or*

surrogate, draws people in and gives them a literal way of touching the past,'<sup>62</sup> (my emphasis).

Memory is cited in the series of Charters put out by ICOMOS. *The Stockholm Declaration* of 1988, which declared heritage to be a human right, concludes that the preservation of this heritage creates 'responsibilities that all - individually and collectively - must share just as all share the wealth of the memory.'<sup>63</sup> *The Krakow Charter* of 2000 defines a monument as 'an entity identified as of worth and forming a support to memory. In it, memory recognises aspects that are pertinent to human deeds and thoughts, associated with the historic time line.' This wording is strange. Memory seems to have taken on the faculties of a sentient being, rather than a neurological activity in a sentient being.<sup>64</sup> These statements go back to the *European Charter of the Architectural Heritage* of 1975 when European States were urged to 'show real solidarity' to make sure that, 'This heritage should be passed on to future generations in its authentic state and in all its variety as an essential part of the memory of the human race.'<sup>65</sup> This makes authenticity into a moral obligation for the future 'memory of the human race,' if there can be any such collective phenomenon that has a memory.

As discussed above, authenticity is a persistent preoccupation in the official administration of heritage policy. In the preamble of the key UNESCO document to which all subsequent charters refer, the *Venice Charter*, it is stated that, 'common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity'.<sup>66</sup> ICOMOS dutifully follows this policy and examples include: the *3rd ICOMOS General Assembly* of 1972 which concluded that, 'The authenticity of historical monuments

or groups of buildings must be taken as a basic criterion and there must be avoidance of any imitations which would affect their artistic and historical value';<sup>67</sup> or *The Charter for the Conservation of Historic Towns and Urban Areas* (Washington 1987), after setting out a series of 'qualities to be preserved' in historic towns, declares that, 'Any threat to these qualities would compromise the authenticity of the historic town or urban area.'<sup>68</sup> Finally, the *Nara Document on Authenticity* was published in 1994. This is clear on the point of, 'the essential contribution made by the consideration of authenticity in conservation practice,' and confirms that, 'The understanding of authenticity plays a fundamental role in all scientific studies of the cultural heritage, in conservation and restoration planning, as well as within the inscription procedures used for the World Heritage Convention and other cultural heritage inventories.'<sup>69</sup>

The significance put on authenticity and the equally frequent admonition on the 'avoidance of any imitations'<sup>70</sup> or the limitation of reconstruction to what is 'known from physical and/or documentary evidence' which 'should be identifiable',<sup>71</sup> seems to stem from a particular interest in what Olick, Vinitzky-Seroussi and Levey describe as, 'History ... driven by "facts" and by a desire for accuracy.'<sup>72</sup> The sociologist, Barbara Misztal, notes that, 'history calls for critical distance and documented explanation, and opposes memory's non-linear temporality and its indivisibility from imagination.'<sup>73</sup> Historical accuracy is a primary concern of art-historians and associated professionals - the principal administrators and legislators of heritage policy.



## 11. The Fallibility of History

Misztal confirms what we noted above from Pierre Nora and Aleida Assmann: history and memory are not the same thing. Indeed, according to Italian historian and literary scholar, Alessandro Portelli, they perform different functions: 'History ... is facts, actual and objective events you can touch and see; stories, in contrast are the tales, the people who tell them, the words they are made of, the knot of memory and imagination that turns material facts into cultural meanings. Stories, in other words, communicate what history means to human beings.'<sup>74</sup> The historian of the Jewish people, Yosef Yerushalmi, goes further: 'Memory and modern historiography stand, by their very nature, in radically different relations to the past. The latter represents, not an attempt at a restoration of memory, but a truly new kind of recollection. ... With unprecedented energy it continually recreates an ever more detailed past whose shapes and textures memory does not recognize. But that is not all. The historian does not simply come in to replenish the gaps of memory. He constantly challenges even those memories that have survived intact.'<sup>75</sup>

If historical discipline does indeed challenge our memories, it challenges our identities. The psychologist, Jeffrey Prager, confirms that memory is, 'part of this unending work of selfhood, of organising and locating oneself in relation to the cultural language of the cultural universe about one.'<sup>76</sup> This act of remembering is far removed from any ambition of authenticity. We can turn to another psychologist, Charles Fernyhough, to clarify the nature of the process of remembering: 'We remember what we need to remember, and forget the rest. Other memory errors, such as bias ... and suggestibility ... reflect the operation of

a combinatorial system that can stick together information from many different sources in recreating an event.<sup>77</sup> If we needed more evidence to distinguish memory from history, we can add its un-historical chronology, as described by Aleida Assmann: 'Human memory does not work according to the comforting and unerring chronological framework of the calendar. It can push the nearest of things into the remote distance, and it can pull the remotest of things into frightening proximity.'<sup>78</sup>

## 12. Heritage and Community

Although the concept of the conservation of built heritage has a relatively short history, in its current form dating back only to the late nineteenth century, we can accept that in modern society the conservation and management of our built heritage is desirable. Our buildings are part of our identity, and so our memory. While monuments may be declared as commemorations of events or people and so designed to fix the memories that they are intended to evoke, they can never fix the entire memory of those who observe or use them. Our everyday built surroundings evoke much more fluid meanings and much more random memories. The conservation and preservation of these places is undertaken on behalf of the community who identify with them (it is highly questionable that there is any such thing as the UNESCO world community – communities are only identifiable by their difference from one another, there cannot be a community of everyone). The significance of buildings and places is only the collective significance relevant to those communities.



14. The Arch of Titus, Rome, 81 CE, (a) before and (b) after reconstruction in 1821. The reconstruction is of sufficient age to be an original in its own right and will be considered original by most visitors.



15. *Ypres Cloth Hall, Ypres, Belgium, completed 1304 CE and destroyed in the 1914-18 War. Reconstructed in its original form from 1933 to 1967.*

There is little evidence to suggest that communities have any special interest in authenticity. For example, few are informed or even know that a building symbolic of English national identity, such as the Tower of London, is far from anything authentically medieval and that, in its present state, is largely an imaginative reconstruction of a Tudor tower by the nineteenth century architect, Anthony Salvin. It is questionable that the people of Rome or visitors to the Roman Forum would have gained more from the ruin of the early nineteenth century Arch of Titus than its extensive rebuilding soon after by Giacomo Valadier, let alone even know that this is the case. Similar questions could be asked of, for example, the old town of Warsaw or the reconstruction of Ypres in Belgium after its almost total

destruction in the First World War. If those communities that take their identity from these buildings and places have no interest in the historical objective of authenticity, then there is no logic in its dogged pursuit.

Beyond authenticity, the managers of our tangible objects of built heritage are charged to 'safeguard them for future generations'.<sup>79</sup> We do not, of course, know what future generations will consider to be worthy of conservation or preservation. We do know, at least, that buildings and places once thought to be of no value, later came to be valued. There is, however, no inevitability about this. Time thresholds for an assessment of what is judged to be heritage can vary. In Britain, it is generally thirty years although, 'It may nevertheless be appropriate to list some modern buildings despite their relatively recent construction,' the criterion being 'outstanding quality.'<sup>80</sup> In Brazil, heritage law can be used for immediate protection. There is an increasing reluctance to put any date limits on what constitutes heritage and, in 2017, ICOMOS published *Approaches to the Conservation of Twentieth Century Cultural Heritage*, (Madrid–New Delhi Document) where conservators are encouraged to see recent buildings and places as, 'a living, evolving heritage' and that 'it is essential to understand, conserve, interpret and manage [them] well for future generations.'<sup>81</sup>

The desirability of heritage has gradually shifted from a past that is generally recognised as an era when things were different to the present. Everything becomes heritage according to those who administer it, extending their power base considerably. Recent buildings, however, often become unfashionable and this, combined with poor functional or constructional qualities, can make them actively disliked by the wider public. It is memories such as



these that communities are willing to, or want to, forget. Official conservators with the power of law can, however, ignore the opinion of the public whose memories they are charged to serve. They can decide on their own that a building or place is of 'outstanding quality' and should be designated as heritage. They can protect these buildings and places because, regardless of public opinion, they believe that heritage is not just a memory that has gained status over several decades, but is on-going in the present or the very recent past. These officials can also justify unpopular actions with the questionable view that the public will be bound to identify with disliked places in the long run.



16. *Birmingham Central Library, England, by John Madin, completed 1973. Sustained efforts to protect the building by the English government agency for heritage, claiming the public would regret its loss in the future, were rejected following strong local objection.*

If buildings and places are to be protected because they form part of the memory and identity of the community, it should be on the basis of a consultation with the community. Indeed, the ICOMOS *Declaration of Amsterdam* of 1975 stipulates that, 'The conservation of the architectural heritage ... should not merely be a matter for experts. The support of public opinion is essential.'<sup>82</sup> If, however, the methodologies of professional historians, such as the maintenance of 'authenticity', are employed and recent (and unpopular) buildings are protected as architectural heritage, it is likely that there will not be 'the support of public opinion'. Nonetheless, such protective measures take place. In an article in the magazine *Heritage*, a British conservator noted, without irony, that the protection of a recent building, is 'sometimes necessary due to the lack of public support.'<sup>83</sup> Such decisions will be made by a group of experts on the basis of their own criteria and with the power of law behind them. As the French philosopher sociologist, Maurice Halbwachs, (of whom much more below) astutely observed, 'Each individual who enters a profession must, when he learns to apply certain practical rules, open himself to this sensibility that may be called the corporate spirit .... The functionary wishes to fulfil the obligations of his function, which are imposed upon him as on all members of his profession. .... In order to resist people who will most of the time oppose them in the name of collective beliefs and traditions, functionaries must rely on beliefs, traditions peculiar to their group.'<sup>84</sup> The community which identifies with these buildings and places, such that it is part of their collective memory, will be the community of experts.



### 13. Community and Collective Memory

Built heritage, as a collection of objects and places that 'validate memories', does so for a community. A community can, as the various Charters imply, range from a group with whom it is possible to consult in order to gauge their opinion, up to - so they claim - the human race or the world, from whom it would be impossible to garner any coherent opinion.

Defining community is a much-debated subject. One of the most important early works on the subject was by the German philosopher and sociologist, Ferdinand Tönnies, in his 1887 book, *Gemeinschaft and Gesellschaft*. This is translated as 'Community and Society' but the words are imprecisely translated into English and are often left in their original German. Tönnies said in the preface to the first edition that, 'there is no individualism in history and civilisation, except of the kind that flows from *Gemeinschaft* and remains conditioned by it, or else of the kind that gives rise to and sustains *Gesellschaft*.'<sup>85</sup> He saw the relationships between groups of people develop from village communities, *gemeinschaften*, to modern organised societies, *gesellschaften*. These were not mutually exclusive ideas but part of a developmental theory influenced by the work of Karl Marx.

From these early days of sociology as an academic discipline, a number of ideas or categories of community have developed (in 1973 Bell and Newby found more than 90).<sup>86</sup> All are based on Tönnies' key concept that there is no individualism and that, to quote Aristotle, 'man is by nature a social animal'.<sup>87</sup> Definitions of community generally fall into two broad categories: those that are based on people living in the same territory (*Gemeinschaft*)

and, either additionally or particularly, people sharing common ideas or interests (*Gesellschaft*). Sometimes social groups just based on common ideas or interests are re-classified as 'associations' but we will keep with the common usage of 'community'.

Communities can be of different sizes. Geographically they can range from hamlets to nations; socially they can be single-interest clubs or based on worldwide faith, such as the *ummah*, the world community of Muslims (*ummah* simply meaning 'community' in Arabic). While early definitions are based on location, increased communication creates a condition whereby communities can be solely, as the American sociologist, David Pearson, notes, 'used to indicate a sense of identity or belonging that may or may not be tied to geographical location. In this sense, a community is formed when people have a reasonably clear idea of who has something in common with them and who has not.'<sup>88</sup> Most people will belong to a series of communities, some of which may overlap. In most countries, to belong to a religious community will give a common identity with others in your nation, but belonging in the community of faith is not coextensive with your national identity and may extend beyond it. The same can be said for small, single-interest communities, such as local history groups embedded in larger urban communities, sharing the community of place but not a community of interest.

As this discussion is concerned with immovable buildings and places, the experience of which people in their locality will share, we will remain with a location-based definition. The German sociologist, Karl Mannheim, brings them together as, 'a circle of people who live together and belong together in such a way that they do not share this or

that particular interest only but a whole set of interests.'<sup>89</sup> To this we can add the role of community in the formation of individual identity, as set out by the British social anthropologist, Anthony Cohen: 'People construct community symbolically, making it a resource and repository of meaning, and a referent of their identity.'<sup>90</sup>

All the individuals in a community will inevitably have their own collections of memories but, as a group sharing a location and with common experiences, they will have many memories in common. As Robert Bellah et al point out, these groups of people or, 'Communities . . . have a history - in an important sense they are constituted by their past - and for this reason we can speak of a real community as a "community of memory", one that does not forget its past.'<sup>91</sup> This collective experience, 'identifies a group, giving it a sense of its past and defining its aspirations for the future'.<sup>92</sup> This is what lies behind the idea of a 'collective memory'.

The concept of collective memory owes its origins to the French philosopher sociologist, Maurice Halbwachs, a pupil of both the philosopher Henri Bergson and the founder of modern sociology, Emile Durkheim. He went beyond Tönnies' principle of no individualism except through community and extended it to the way that the memories of individuals in the community were formed and expressed. In 1925, he wrote:

One is rather astonished when reading psychological treatises that deal with memory to find that people are treated there as isolated beings.... Yet it is in society that people normally acquire their memories. It is also in society that they recall, recognise, and localise their memories... It is in this sense that there exists a collective memory and social frameworks for memory; it is to the

degree that our individual thought places itself in these frameworks and participates in this memory that it is capable of the act of recollection.<sup>93</sup>

From this principle, collective memory became a lens through which the identity and conduct of communities and their memories could be seen, something which remains a specialised area of sociological study to the present day. It is a very significant move away from the idea of memory as an isolated individual phenomenon, largely as we have discussed above, and has a major impact on the idea of how individuals fit within a community, how they identify with that community, and how they behave as members of the community.

Collective memory, however, shares many of the characteristics of individual memory that we have already identified. Halbwachs states that, 'Collective memory must be distinguished from history.'<sup>94</sup> He also notes its selective nature and inaccuracy, inasmuch as, 'the various groups that compose society are capable at every moment of reconstructing their past. But ... they most frequently distort the past in the act of reconstructing it.'<sup>95</sup> Selection must, he additionally confirms, mean that, 'forgetting, or the deformation of certain recollections, is also explained by the fact that these frameworks [of remembering] change from one period to another.'<sup>96</sup> As with all matters of human recollection, he affirms that, 'collective memory reconstructs its various recollections to accord with contemporary ideas and preoccupations.'<sup>97</sup>

Most significantly, collective memory lies at the core of identity itself as all people will be, and will seek to be, members of a group or community. Halbwachs takes this further and believes that, 'We should henceforth renounce

the idea that the past is in itself preserved with individual memories.' The very act of remembering is framed by the group with whom the individual identifies as, 'society modifies its conventions. As every one of its members accepts these conventions, they inflect their recollections in the same direction in which collective memory evolves ... We can remember only on condition of retrieving the position of past events that interest us from the frameworks of collective memory.'<sup>98</sup>

If the culture of the community is responsible for providing the cognitive structure for the memories of the individuals within that community, the identity of the individual as a member of a group will be a combination of personal experience and the perceptual priorities communicated through membership of that group. This remembered common past will have a profound influence on all collective activities. David Gross lists them:

.... a considerable amount of social or collective memory is still alive and well today. It is clearly active, for instance, in many of our institutions: in schools, libraries, museums, seminaries, and conservatories, whose very *raison d'être* are built upon an imperative to remember. It is present as well in bureaucracies, in the rules and regulations, the procedures and protocols, that keep the past alive even in the process of routinizing it. Social memory is active too in law codes, legal statutes, and judicial precedents (the law itself being, in its totality, the juridical memory of the community). It is also active in the churches, at least to the extent that they preserve and carry forward the essential elements of belief through a continuity of dogmas, doctrines, and sacred texts. And it is active in political parties, labor unions, and other voluntary organizations devoted to, among other things, the promotion of class or ethnic interests.

Social or collective memory is operative also in the enormous storehouse of information contained in the countless documents, records, files, and dossiers collected by a host of agencies in both the public and private realms, and (on a still vaster scale) in computers and electronic data banks. Social memory continues on, as many linguists have reminded us, in the very grammar and structure of our language, and in the way that assumptions and mental habits from the past are perpetuated in the concepts, figures of speech, and metaphors we use. It is likewise implicit in centuries-old symbols and images that have managed to survive into the contemporary period; hidden within these carryovers from the past, as the art historian Aby Warburg pointed out, is a residue of 'mnemonic energy' that yet speaks to us across the ages, whether we are fully aware of it or not.<sup>99</sup>

It would seem reasonable to include in this list the perception and therefore the memory of the buildings and places that are shared by the community. Indeed, Halbwachs goes further, stating that, 'every collective memory unfolds within a spatial framework'.<sup>100</sup> Adding that, 'every phase of the group can be translated into spatial terms, ... Each aspect, each detail of this place has a meaning only intelligible to members of the group, for each portion of its space corresponds to various and different aspects of the structure and life of their society.'<sup>101</sup> The memory of place is intimately linked to the identity of the group and therefore of all members of the community: 'The group's image of its external milieu and its stable relationship with this environment becomes paramount in the idea it forms of itself, permeating every element of its consciousness, moderating and governing its evolution.'<sup>102</sup>

The eminent Italian architect and theorist, Aldo Rossi, seems to have been the first architect to have grasped the significance of Halbwachs' analysis for buildings and places. In his seminal book, *The Architecture of the City*, published in 1966 and in the following 16 years gradually translated into other languages (into English in 1982), he says, following a quotation from Halbwachs: 'One can say that the city itself is the collective memory of its people, and like memory it is associated with objects and places. The city is the locus of the collective memory. This relationship between the locus and the citizenry then becomes the city's predominant image, both of architecture and of landscape, and as certain artefacts become part of its memory, new ones emerge. In this entirely positive sense great ideas flow through the history of the city and give shape to it.'<sup>103</sup>



17. *The Palio, Siena, Italy. Traditional horse race between the different districts of the city held annually in the central square or Campo. The place and its traditions are part of the collective memory of the city.*



Buildings and places are clearly a significant part of the way communities, and therefore members of the community, identify themselves. This identity is based on the collective memory of the community, such memory being at the very least a major part of the way individuals in the community structure their recollections. These recollections can only be based on an experience of the past and the identity of all those who are part of community will be taken from the buildings and places of the past, shared by the group. This memory and identity is carried through into the future as the framework for a response to events as they unfold and for future action. Any disruption to this framework is a challenge to the identity of the community and individuals.

The structure of these future actions individually and collectively can be a specific expression of community identity. Marc Bloch, historian, founder of the *Annales* Group, friend and colleague of Halbwachs, wrote in 1925 that, 'Every social group derives its spiritual unity from the traditions that constitute the specific content of the collective memory.'<sup>104</sup> He identifies a clear relationship between collective memory and tradition, however, as the American historian, Brian Ladd, says, how buildings and monuments are 'seen, treated and remembered sheds light on a collective identity that is *more felt than articulated*' (my emphasis).<sup>105</sup> The act of designing buildings and places is, on the other hand, rather more than an unrecognised sentiment. It is deliberate and expressive and can be a purposeful response to the identity - and so the collective memory - of the community for whom it is intended. Such a considered expression that carries the communal memory of the past into the future can be called a tradition.

## 14. The Paradox of Tradition and Modernity

As we explored in the last chapter, the idea that tradition is the enemy of progress and modernity goes back to the Enlightenment. In the eighteenth century, a *philosophe* was encouraged to trample ‘on prejudice, tradition, universal consent [and] authority’.<sup>106</sup> This idea lives on and in 1984 the German philosopher, Jürgen Habermas, wrote in *Modernity – an incomplete project*: ‘Modernity revolts against the normalizing functions of tradition; modernity lives on the experience of ‘rebell[ing] against all that is normative.’<sup>107</sup> This was a key principle of the founders of architectural modernism. The fifth principle of the *De Stijl Manifesto I* of 1919 said, ‘Tradition, dogmas and the predominance of the individual stand in the way of this realization [of the new consciousness of the age].’<sup>108</sup> In 1923, Le Corbusier, in his hugely influential book, *Vers Une Architecture*, declared, ‘There is no longer any question of custom, nor of tradition.’<sup>109</sup> By 2008, the influential German architect, Volkwin Marg, could declare that this objective had been fully achieved and that, ‘These days, we’ve lost tradition, everything you include is a deliberate choice.’<sup>110</sup>

Moving away from an extreme denial of all tradition, various propositions have been made by architects to reconcile these opposing concepts: a book on the seminal modernist, Berthold Lubetkin, is subtitled *Architecture and the Tradition of Progress*;<sup>111</sup> the tradition of modernism or a modern tradition;<sup>112</sup> or ‘a mature and totally new balance between ... the future and tradition.’<sup>113</sup> Nonetheless, architects who define themselves by originality or modernity-as-idea (see Chapter IV) will remain suspicious of any design that is called ‘traditional’.



*18. Berlin Central Station, Gmp Architekten - Von Gerkan, Marg und Partner, opened 2006. Marg believes that we have lost tradition and only deliberate choice is left.*



*19. Houses at Genesta Road, London, by Berthold Lubetkin, completed 1934. Lubetkin is described as practicing in the 'tradition of progress'.*

On the other hand, Edward Shils, the American sociologist and key analyst of tradition, said, 'As long as the universe remains mysterious, as long as human beings seek order in it, and as long as they are curious to know it, they will create and form and attach themselves to traditions. As long as they wish to be something more than what is fully enclosed by their skin and their apparel, they will seek and find traditions and they will create them. ... Human beings cannot survive without traditions even though they are so frequently dissatisfied with their traditions.'<sup>114</sup> If we give this any credence, architects and urban designers should understand the nature of tradition and how it affects the people and society for which they design.

## 15. Tradition and Custom

The Cambridge Dictionary defines tradition as: 'a belief, principle, or way of acting that people in a particular society or group have continued to follow for a long time, or all of these beliefs, etc. in a particular society or group.' The Merriam-Webster Dictionary has several definitions but two are typical: 'an inherited, established, or customary pattern of thought, action, or behaviour', and 'cultural continuity in social attitudes, customs, and institutions.' The origin of the word is in the Latin, *traditio*, meaning handing down.

Tradition shares some aspects of collective memory. Memory is a recollection and, as a cerebral activity, is physically passive and resides in the mind of those who hold the memory. A belief, principle or thought shared by members of a particular society or group will be a collective memory and, according to these definitions, will also be a tradition. It can be simply and unconsciously absorbed and structured through common experience. As a society or community is, however, an active relationship between

individuals, the structure that is given to the memory of an individual will most likely be transmitted by the words and deeds of other members of the community. This transmission will cease to be just memory and will become an action. As with all actions, it will take the recollections of the past and use them to inform a present manoeuvre which will be directed to the future. Individual or joint actions that transmit or hand down collective memories or traditions are traditional actions and these will be a more or less accurate re-enactment of a previous action. As Shils says, however, 'The re-enactment is not the tradition; the tradition is the pattern which guides the re-enactment.'<sup>115</sup> Beyond any practical purpose in repeating previously successful behaviour, the action will maintain or reinforce the structure and meaning of the collective memory or traditions of the community. In doing so they will support and reinforce the collective identity of the community and, it follows, the identity of all members of the community.

The Merriam-Webster definitions of tradition include references to 'custom'. If traditions are just customs, then they are not part of the definition, they would *be* the definition. They cannot, therefore, have exactly the same meaning. The two terms, 'tradition' and 'custom' are, however, often treated synonymously. It will be useful to distinguish between them.

The Cambridge Dictionary has two definitions of 'custom': 'a way of behaving or a belief that has been established for a long time' and, 'something you usually do'. The Merriam-Webster Dictionary has several definitions, but again two are typical: 'a usage or practice common to many or to a particular place or class or habitual with an individual,' and 'repeated practice'. From the twelfth century CE, 'custom' has meant in English 'habitual practice'. Its origin is in the

Latin, *consuetudo*, meaning variously: habit, usage, way, practice, tradition, familiarity.

The common theme of these definitions of custom is 'habit' or unselfconscious repetition. They also have no necessary connection with a community or group and, indeed, habit can be entirely personal. Traditions may be habitual but habits are not necessarily traditional.

In architectural terms, the vernacular is habitual or customary, it is just what its makers usually do. Vernacular (originally meaning the local language as a contrary to Latin) is defined in built form by the British architectural historian, Ronald Brunskill, as, 'designed by an amateur ... guided by a series of conventions built up in his locality, paying little attention to what may be fashionable.'<sup>116</sup> As soon as the design follows a fashion or the architect identifies it as a style, it ceases to be vernacular - whatever the designer chooses to call it. If the design is deliberately related to an inherited type or style that is identified with and by a particular community, group or culture, it will be 'traditional'. (There are some qualifications to this which will follow.)

This distinction between custom and tradition was not accepted by the eminent British Marxist historian, Eric Hobsbawm. Although he sees tradition and custom as intertwined, he believed that 'The object and characteristic of "traditions" ... is invariance,' whereas, "'Custom" cannot afford to be invariant, because even in "traditional" societies life is not so.'<sup>117</sup> Simple 'invariance' is, however, not accepted by most commentators on tradition. For example, Shils tells us that, 'Even in the course of a short chain of transmission over three generations, a tradition is very likely to undergo some changes';<sup>118</sup> and Gross refers



to, 'all the additions, modifications, or embellishments a tradition can take on over the years.'<sup>119</sup> We established in the first chapter that everything changes and this will apply, *pace* Hobsbawm, to both customs and traditions. All commentators agree, however, that with traditions, whatever their changes, 'at least a few persistent elements remain from beginning to end'.<sup>120</sup> They retain some identity with their origins and involve some reasonably consistent repetition over time.



20. *Vernacular Architecture, Somerset, England. Vernacular architecture is based on local custom, when a version of it is built to deliberately reflect local custom it becomes a tradition.*

The distinction between tradition and custom is significant. Traditions may be habitual and customary but it is as traditions that they define the identity of a group or community.



As a fundamental part, if not the totality, of the identity of a society, particular traditions or combinations of traditions will, to members as well as to outsiders, define the culture of one group as distinct from another. This is ‘culture’ according to the first definition in the Cambridge Dictionary, which is, ‘the way of life, especially the general customs and beliefs, of a particular group of people at a particular time’, rather than a second definition which refers to, what we may call, ‘high culture’ - music, art, theatre, literature and so on. It is in this context that the British philosopher Roger Scruton says, ‘Every culture is characterised by a central stream or tradition of works that have not merely “stood the test of time” but which continue to serve as models and inspirations for living practitioners.’<sup>121</sup>

## 16. Case Studies of Tradition and Culture

If traditions are at least one of the defining characteristics of a culture, if not the entire definition, their importance cannot be underestimated. We can take a brief excursion into two quite different disciplines to help to confirm the relationship between culture and tradition: archaeology and primatology.

### *Archaeology*

Prehistoric archaeology, where there is no written or other narrative record, seeks to determine the nature of human activity based on whatever physical or material evidence has survived. Although there is always speculation on the interpretation of this evidence, all conclusions are, at their core, evidence-based.

For a time, the identification of cultures through material evidence alone was discredited in favour of an analysis of the process of change. Extremely slow cultural changes in

pre-history, however, gave continued relevance to the interpretation of physical evidence for continuity through the observation of common characteristics. We need not concern ourselves with this debate, nor the introduction of other scientific disciplines and the differences of opinion on matters such as whether commonality was due to invasion, migration or influence. The use of a distinctive physical similarity of objects to identify groups that have what is called a 'material culture' or 'archaeological culture' (so called in order to differentiate 'soft' aspects of culture, such as myth or symbolism, that cannot be determined with any certainty) remains significant.

As Stephen Shennan, Professor of Theoretical Archaeology at University College London, says, 'Since evolution in the human species operates largely on what is inherited culturally in the form of cultural traditions, without identifying and characterising those traditions we have no basis for understanding how or why human evolution has taken the course it has done. The only source of direct information about such traditions for most of human history is archaeology. If this makes archaeology essential for understanding the evolutionary process at work in the human past, it also specifies what the first task of archaeology should be: documenting those traditions or cultural evolutionary lineages.'<sup>122</sup>

In documenting prehistoric archaeology, different cultures are, as the British archaeologist Hannah Fluck confirms, 'expressed through empirically observable variations in objects.'<sup>123</sup> These variations cannot be solely a response to environmental necessity. For example, if flint is not a locally available material and tools are made of more accessible quartzite pebbles, then material use alone would not provide sufficient evidence for a distinct culture.

For the archaeologist, a culture will be, as defined by the Cambridge archaeologist, Cameron Petrie, 'a set of shared ideas, beliefs, attitudes, values, practices, and perhaps most visibly material things, which characterise a particular group and become distinct traditions as they are passed down through time – in essence it is something learned.'<sup>124</sup> The distinctive early agricultural *linearbandkeramik* culture, identified in middle Europe from the seventh to the mid fifth century BCE, is described by the British-based archaeologists, Daniela Hofmann and Penny Bickle, as 'the classic archaeological culture, as its material repertoire consists of a certain style of houses, economy, burial, stone tools and so on constantly recurring together'.<sup>125</sup> It is so named because of one persistent and unique 'visibly material' thing, a type of ceramic decoration. To confirm the effectiveness of this kind of material culture classification, recent work by Peter Bellwood *et al* on the early migrations of Austronesian-speaking people has been able to combine information on language, genetics and material culture to show that these 'can be transmitted through time and space with high degrees of correlation.'<sup>126</sup>

These observable variations may be the result of gradual technical development and advances in tool design or the introduction of agriculture, or they may be, as with *linearbandkeramik*, purely decorative, but as cultures they will, as the Danish archaeologist, Felix Riede, describes them, be 'a materialist, population-level phenomenon that is generated through the actions of individuals and [which]... takes archaeological shape through the consistent socially learnt repetition of such actions through generations.'<sup>127</sup> In other words, they will be defined by traditions.



21. Linearbandkeramik, a decorative pottery type that is found over a period of 1,500 years from about 5,500 BCE, amongst the first farming communities in Europe. The consistency of the traditional decorative type, along with other material remains, identifies this group as a continuous culture.

### ***Primateology***

In the field of primatology - the study of primates - the patterns of collective behaviour of chimpanzees is of great interest. Living in discrete groups, or troops, they exhibit elaborate social relationships and complex means of exploiting their environment. Their close evolutionary

relationship to humans, their social groupings and the ability to observe them in the wild and captivity have made the study of chimpanzees central to the debate as to whether animals can have any social interaction that can be described as 'culture'. Other animals are also considered, from birds to dolphins, but the interest in chimpanzees for the reasons above, has led to a larger body of observation that gives higher quality results.

As with prehistoric archaeology, there can be no exchange of intellect with the subjects, all the evidence is based on observation or conceptually distinct and limited communication. With chimpanzee troops, however, 'soft' evidence is available and social interaction can be actively observed while, on the other hand, there is relatively little 'hard' material culture – although some artefacts, such as tools and nests, can be examined. The key question is nonetheless the same: on the basis of observed (or found) information what constitutes or can be identified as culture?

The obvious retort by William McGrew of the University of Cambridge, one of the leading researchers in the field, is that it depends how you define culture.<sup>128</sup> It cannot be the first definition from the Cambridge Dictionary used above, let alone the second. Clearly, any definition of culture that is exclusively human will simply eliminate all other species. Primatologists and other biologists have to come up with a series of different definitions that can be tested against the observed activities of socially active groups of animals. For our purposes, we need not enter too closely into the debate on *whether* chimpanzees have culture, but examining the means by which this has been tested is a good parallel case for the relationship between culture and tradition.

In 1952, the Japanese primatologist, Kinji Imanishi, defined animal culture as 'socially transmitted adjustable behaviour'.<sup>129</sup> This proves to be too general. Victoria Horner, of Emory University's Yerkes National Primate Research Center, defines culture simply as the 'transmission of behavior by nongenetic means'.<sup>130</sup> Culture cannot, therefore, just be based on a characteristic found throughout the species, as this would mean it was most likely genetic. As with archaeology, in any differentiation between groups, culture cannot be simply a response to particular environmental conditions. Much as stone tool technology might only be driven by available stone, hunting behaviour might only be driven by the species available for hunting.

McGrew defines culture as 'the way we do things'.<sup>131</sup> He elaborates on this apparently over-simplified statement: 'do things' is behaviour; 'the way' is standardised behaviour or things different from other behaviour or things; 'we' means behaviour or things that are socially significant; and 'the way we do things' differentiates the one culture from another, such that they have a source of identity. He does, however, specifically omit tradition as a defining characteristic of a culture on the basis that, first, a habit is not tradition, and second, that distinctive patterns of social learning which can identify culture do not necessarily last for more than a short time or over generations.<sup>132</sup> He does, however, go on to say that, 'it is entirely reasonable to define "culture" as tradition,' but that, 'The lesson is to define the terms clearly and honestly.'<sup>133</sup> We have already come to the conclusion that traditions may be habitual, but what is habitual is not necessarily a tradition. The issue that remains is continuity over time and particularly generations, a phenomenon hard

to observe with wild troops and a long-lived species (25 to 60 years).



22. A member of the Kanyawara chimpanzees group extracting honey using a tool made especially for the purpose. The transmission of these skills within a group can be said to constitute a tradition.

According to other primatologists, behaviour that differentiates one troop from another and the traditions that developed in the group, have become the defining characteristics of culture. Michael Tomasello of the Max Planck Institute for Evolutionary Anthropology in Leipzig is emphatic on the point: 'the question of whether chimpanzees have cultures may be reformulated initially as a straightforward question about which of the various underlying processes of social learning chimpanzees employ in the acquisition and maintenance of the population-specific behavioural traditions.'<sup>134</sup> Frans de E Waal, Professor of Primate Behaviour in the Department of Psychology at Emory University in Atlanta, Georgia, believes



that not just primates, but other animals that engage in group behaviour, have a form of culture. In observing chimpanzee troops, he notes that, 'all captive colonies have their distinctive characteristics and traditions in the same way that wild groups have distinctive characteristics and traditions – exhibiting intergroup differences in communication, choice of foods, and tool use.'<sup>135</sup> De Waal puts chimpanzee culture on a graduated scale with 'essentially human culture'. In this context, he defines culture as 'behaviour that is socially transmitted, ... based on the same learning mechanisms (that you learn from others in social learning), and that it has the same results - that groups do different things. In humans we definitely call that cultural variation.'<sup>136</sup>

### ***The Cultural Memory of the Group***

What do these two disciplines tell us about tradition and culture? Culture is a phenomenon that makes groups (of people or animals) distinct and different one from another and gives them a unique identity. It is beyond a wholly pragmatic response to environmental conditions and so must display particular characteristics that are more than necessity or function. It is based on social learning, that is, horizontal learning across a group (as a contrary to vertical learning, the more usual animal parent-to-offspring learning by observation or imitation). If this social learning is transmitted to the group over an extended time, it is a tradition. It becomes the cultural memory of the group.

## **17. Dual Inheritance Theory**

Between archaeology and primatology lie evolution and anthropology. If, as has been demonstrated, tradition and culture are intimately linked and will be so, at the very least, in early human societies, and possibly also in primate

societies (and so in pre-human hominid societies), we are clearly dealing with something quite fundamental to the human condition. To investigate this further there are two routes: the evolution of the genus *homo* to the modern human, *homo sapiens sapiens*, in the Pleistocene era over a timespan of two and half million years; and anthropology, the study of human interaction, and in particular social and cultural behaviour.

These two aspects of human development are clearly linked. Not all animals are social and so our propensity to social behaviour must be driven by our evolutionary inheritance. The problem is that Darwinian evolution can only take place over very long time-spans and, even in a simple assembly of tribal groups, there is huge variety in human social behaviour and this can change in decades. Early attempts to bring the two together departed from Darwin towards the earlier theories of Jean-Baptiste de Lamarck which proposed a more direct, personally inherited environmental response. At the end of the nineteenth century, the German physiologist, Ewald Hering, and the English utopian novelist and evolutionary theorist, Samuel Butler, both proposed that memory could be biologically inherited. The German zoologist, Richard Semon, specifically related this to social behaviour in his 1904 book, *Die Mneme*. These theories were discredited, along with theories of Lamarck with advances in the study of genetics.

The seminal work of Robert Boyd, anthropologist at Arizona State University, and Peter Richerson, biologist the University of California, now brings together evolution and anthropology in 'dual inheritance theory' which was systematically set out in their book, *Culture and the*

*Evolutionary Process*, in 1985. This is widely cited in anthropological, archaeological and primatological research.

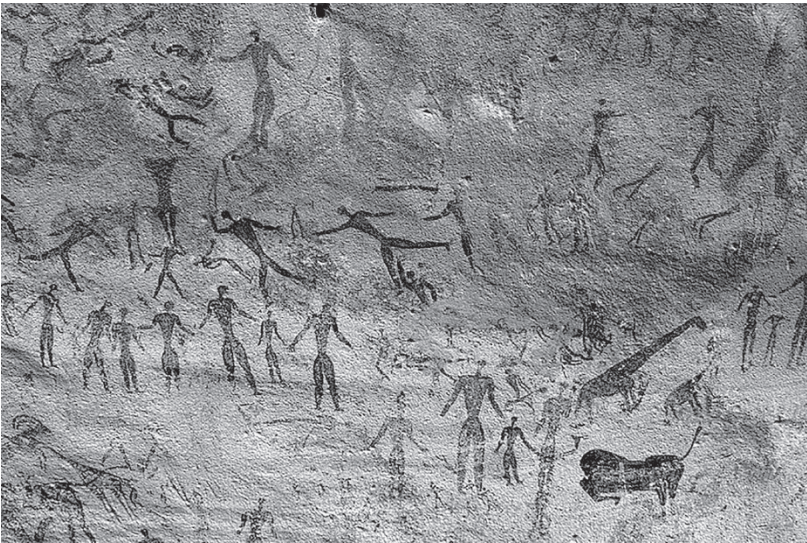
They are realistic about the relationship between classic evolutionary theory and cultural development: 'the analogy between genes and culture is not very deep. The two are similar in that important information is transmitted between individuals. Both systems create patterns of heritable variation. ... But this just about exhausts the similarities.'<sup>137</sup>

Nonetheless, they use evolutionary theory in the study of culture: 'Assuming that culture is a system of inheritance, it seems likely that Darwin's approach will be useful for understanding cultural change for the same reason that it provided the key to understanding organic evolution: it directs our attention to accounting for all the important processes that affect variation carried through time by a succession of individuals.'<sup>138</sup> Their definition of cultural inheritance is based on 'the notion that culture is a socially transmitted heritage'<sup>139</sup> and can be equated with tradition. There can be no doubt as to its significance.

The ability to accumulate socially learned behaviour over many generations has allowed humans to develop subtle, powerful technologies and to assemble complex institutions that permit us to live in larger, and more complex, societies than any other mammal species. These accumulated cultural traditions allow us to exploit a far wider range of habitats than any other animal, so that even with only hunting and gathering technology, humans became the most widespread mammal on earth.<sup>140</sup>

Some of the communal benefits of cultural inheritance are listed. Primarily, 'it is an efficient shortcut to trial-and-error learning. By imitating the cultural rules of others,

individuals can avoid the cost of learning.’<sup>141</sup> As this is a process that is shared across a society and across generations, ‘The single most important adaptive feature of culture is that it allows the gradual, cumulative assembly of adaptations over many generations – adaptations that no single individual could invent on his own.’<sup>142</sup> This has allowed humans, ‘to accumulate adaptive information over many generations, building complex artefacts and institutions composed of many small innovations.’<sup>143</sup>



*23. Neolithic cave painting, Western Desert, Egypt. Dancing figures and animals. Cultural transmission, similar to, but more rapidly passed down than genetic evolution, has allowed humans to dominate other life forms.*

The traditions that are created in this way by a society (or a culture) are not fixed but provide a reservoir of knowledge that can be selected according to conditions: ‘social learning allows individual learning to be selective. Individuals can learn opportunistically when it is likely to be

more accurate or less costly and imitate when conditions are less favourable.<sup>144</sup> Finally, 'The take-home message is that a cultural system of inheritance is an evolutionarily flexible system that natural selection could tune to cope with many patterns of environmental variability.'<sup>145</sup>

We can now see that tradition (or cultural inheritance) is rather more than the identity of a group or just an aspect of commonality, it is one of the key attributes of the social behaviour that defines humanity and has played a key role in the advancement of the human species in its evolution from hunter gathers to, what we may call (for better or worse), advanced civilisation.

## **18. Tradition and Group Identity**

It seems clear that the creation of tradition has, either because it is innate or because of its developmental benefits, been universal in human communities. It has common characteristics, if not the same outcomes, and we can examine some of the additional consequences it brings in its train. These do not always have the immediate practical benefits that come out of economies of learning or accumulative knowledge, but they do seem to be consistent accessories to cultural inheritance and have a consequent social impact.

Characteristics that have no discernible survival benefits exist in biological evolution. Evolution has no end purpose or design objective, it just happens and has a basis in random mutation. As a paper in the Australian Academy of Science puts it, 'some mutations will be harmful, and will probably be eliminated by natural selection. Others, though, will be 'neutral', neither harmful nor beneficial... They persist ... because there is no particular harm in

hanging around.’<sup>146</sup> These are non-adaptive features, called ‘evolutionary spandrels’ by the American evolutionary biologists, Stephen Jay Gould and Richard Lewontin, as an architectural metaphor for a mutation or evolutionary development not immediately functional that can have supplemental benefits (Gould and Lewontin confused architectural spandrels with pendentives, the metaphor applies to their non-structural nature and their use for decoration).<sup>147</sup> It is not just that physiological features, such as the human appendix or the eyes of the blind cave salamander, survive beyond any evolutionary purpose, it is that, once in existence, it is possible for redundant features to be put to secondary beneficial uses. The ostrich, for example, although now flightless, retains vestigial wings with the muscular and skeletal structure for flying, which it can no longer do. It can, however, use this same physiology for steadying its stature as it runs at great speed.

Following Boyd and Richerson’s analysis of culture on evolutionary principles, we might expect similar evolutionary spandrels in cultural inheritance. Indeed, they confirm that, ‘Errors in social learning, other random environmental effects on behaviour, and systematic, nonrandom variations acquired by learning may be transmitted.’<sup>148</sup> These are a consequence of the cultural inertia in traditions which may have lost their original function but, as they tend to exist in discrete communities, will differentiate one group from another. As Boyd and Richerson point out, ‘A wealth of anthropological data suggests that human groups possess considerable cultural inertia; members of groups with different cultural histories behave quite differently even when living in similar environments.’<sup>149</sup>





24. Pendentive or squinch, Hosios Loukas Katholikon, Distomo, Greece, tenth century CE. Wrongly identified as ‘spandrels’, the decoration of these non-structural parts of a dome have been used a metaphor for accidental evolutionary phenomenon being put to good use.

While it is possible that cultural transmission may have deleterious effects, such as female circumcision, there can be a point when cultural inertia can become a ‘cultural spandrel’ – a tradition that has lost its functional advantages but can be used for supplementary community benefits. The authority of cultural transmission is such that it creates a condition so that, ‘When tradition is important, it acts like a system of inheritance to create heritable variation within and among groups.’<sup>150</sup> As it is group differentiation that seems to be a by-product of cultural inertia, it can be precisely this differentiation that is the benefit.



While we may not agree entirely with Tönnies, as quoted above, that 'there is no individualism in history and civilisation', we can agree that mankind is naturally social and this has been the case for all that we know of the archaeology of humanity. Societies or communities can only be identified in distinction from other societies and communities. There is no such thing as the society of mankind.



25. *Sir Angus Clifford, Gentleman Usher of the Black Rod, UK Parliament, 1832-7. The ceremonial role of Black Rod, managing the ceremonies and security of the House of Lords, includes a ritual slamming of the door of the House of Commons when the monarch arrives, symbolising the sovereignty of Parliament since Charles I's challenge in 1642. This redundant ceremony is part of the identity of the British Parliament.*

The principle that all humans are naturally disposed to identify with their own group – an ‘in-group’ – and that this contrasted with any other group – ‘out-groups’, was experimentally investigated by Henri Tajfel, the Polish-British social psychologist, in 1970. Using tests on a group of young adolescent boys from the same school, he found that groups that were randomly selected, but with their membership explicitly identified, showed individual biases in favour of their in-group to the detriment of another randomly selected out-group. He concluded that: ‘To behave *appropriately* is ... a powerful social motive ... Judgements of what is appropriate are determined by social norms, or sets of expectations ... Socialisation into “groupness” is powerful and unavoidable’<sup>151</sup> (emphasis in original). The negative aspects of this are obvious and for Tajfel, a Jewish refugee from Poland, this was part of the motive for the experiment, but we only need to establish what appears to be a fundamental and probably genetic characteristic of humans.

In a state of tribal subsistence, group cohesion would be essential for survival and could be in competition with other groups. The existence of traditions that are particular to a group will reinforce its sense of cohesion, as the Spanish sociologist, Manuel Castells, says in *The Power of Identity*: ‘people resist the process of individualization and social atomization, and tend to cluster in community organizations that, over time, generate a feeling of belonging, and ultimately, in many cases, a communal, cultural identity.’<sup>152</sup> The consolidation of group identity seems to be an evolutionary spandrel of cultural inertia. Many traditions will retain their functional roles, but others will develop into symbolic representations of community identity. Levitical dietary laws, which probably had origins in food hygiene in a middle-eastern climate, now rendered

obsolete by refrigeration, have become a matter of ethnic-religious discipline and 'one of the pillars of Jewish religious life.'<sup>153</sup> The British Royal Officer, known as 'Black Rod', has the door to the House of Commons ritually slammed in his face prior to the appearance of the monarch. This was originally an essential re-assertion of the independence of the Commons from the Crown. Now obsolete, it remains one of the identifying ceremonies of the British Parliament.



*26. The peacock's tail. Wasteful display and runaway mutation. As with genetic selection, Cultural Transmission can produce wasteful display which can enhance social cohesion.*

Once traditions become free of their practical educational role, they are free to develop what is called in evolutionary terms, 'wasteful display' with 'runaway mutation'. In biological evolution, this arises in sexual selection. The best-known example is the evolution of the peacock's tail, a conundrum that taxed Darwin. As peacocks evolved, early males would have had plainer tails, but the quality of the tail would have been an indication of the vigour of the male and so, for peahens, a better choice of parent for her chicks. The males in the next generation of chicks would inherit, and maybe better, the tail of their father, making them a preferred mate for peahens. In a relatively short space of time in evolutionary terms – so a 'runaway' process - this form of selective breeding would lead to the elaborate tail of the peacock as we know it. The size of the tail is a disadvantage in the avoidance of predators but, evidently, not bad enough to make the species extinct.

If the sense of identity is significant for a group, a better sense of identity is better and, as cultural spandrel, the development of the tradition would not be constrained. As the American legal scholar, Cass Sunstein, confirms: 'If members of the group think that they have a shared identity and a high degree of solidarity, there will be heightened polarization.'<sup>154</sup> Boyd and Richerson set down some principles for identifying runaway cultural mutation. These would be traits that would 'seem consistent with an origin and maintenance by the runaway process. Such traits should have the following properties: (1) More exaggerated variants should be associated with greater prestige. (2) The values of the trait observed should not make sense from an adaptive point of view. (3) The observed variant should be plausibly interpreted as an exaggerated version of a sensible indicator trait.'<sup>155</sup> Their evidence for this is anecdotal, but compelling nonetheless.

It can provide an answer for many of the characteristics of societies that, as identified by the American evolutionary psychologist, Geoffrey Miller, do 'not make much sense as a set of survival adaptations shaped by natural selection. Too much of cultural behaviour, such as art, music, ritual, ideology, myth, humour and story-telling, seems so expensive in terms of time, energy and practice costs, and so useless for survival.' Miller believes that this 'sort of wasteful display is exactly what we would expect from traits shaped for reproductive competition.'<sup>156</sup> This is, indeed, the standard biological evolutionary model for wasteful display and Boyd and Richerson make the parallel, but it is obvious that the creation of myth, for example, is more likely to be founded in cultural cohesion than sexual selection.

Boyd and Richerson look at the cultivation of yams on the island of Ponapae and the practice of extensive tattooing in Polynesia as exemplars of cultural runaway mutation. We can examine language as the archetypical case of cultural transmission, wasteful display and group identity. As the German philosopher, Hans-Georg Gadamer, confirms, 'Linguistic tradition is tradition in the proper sense of the word.'<sup>157</sup> It conforms to their three criteria: (1) more exaggerated language delivers prestige; (2) while language is functional, poetry, for example, has no evolutionary adaptive benefits; (3) gratuitously expressive language is very clearly an exaggeration of raw functional communication. The Canadian linguist, Jack Chambers, confirms that, 'The fact that linguistic variability is universal and ubiquitous suggests that it is fulfilling some essential human need,' and, 'The underlying cause of sociolinguistic differences ... is the human instinct to establish and maintain social identity.'<sup>158</sup> We can examine this phenomenon today. The Irish political scientist and

historian, Benedict Anderson, in his major work, *Imagined Communities*, identifies unifying languages as one of the key factors in the establishment of nationhood in the nineteenth and early twentieth centuries: ‘Much the most important thing about language is its capacity for generating imagined communities, building in effect *particular solidarities*,’<sup>159</sup> (emphasis in original). We can witness the re-establishment of identities through language: after nationalist suppression of regional languages in Spain, they have regained legal status together with regional autonomy; following the break-up of Yugoslavia into nations, each has deliberately distanced its vocabulary from the original national Serbo-Croat; Scotland has taken on the only surviving regional language, west coast Gaelic, as a national language, notwithstanding its geographically limited origins.

Traditions can be much more than communal learning by imitation or the accumulation of knowledge. They can develop autonomously and become exaggerated and relatively static and, in this form, can take on a symbolic role as expressions and affirmation of community identity. These are traditions we often recognise and pick out as such: national and local ceremonies, manners, social mores, political protocols, collective lifestyles, artistic forms, local architectural types and so on.

## 19. Reconsidering Enlightenment Attitudes to Tradition

In the origins of the Enlightenment, which sought to ‘trample underfoot prejudice, tradition, antiquity, shared covenants, authority’<sup>160</sup> lie the recourse to reason and science behind much of the current aversion to tradition. This is summarised by Jürgen Habermas:



... enlightened thinking has been understood as an opposition and counterforce to myth. As *opposition*, because it opposes the unforced force of the better argument to the authoritarian normativity of a tradition interlinked with the chain of the generations; as *counterforce*, because by insights gained individually and transposed into motives, it is supposed to break the spell of collective powers. (emphasis in original.)<sup>161</sup>

The *philosophes* of the eighteenth century, however, pre-date Darwin and today we can add evolution to the sciences as well as (although this can sometimes, and in some cases, be disputed) the social sciences, anthropology, psychology, behavioural biology and archaeology. We can now see that tradition has a rational place in the development, organisation and cohesion of society. Much of the evidence, however, seems to be located in an elemental view of society of a kind that may have existed in pre-history or exists in small technologically undeveloped communities. Even if we accept that tradition was instrumental in making mankind what it is today, and even if we accept that our psychological make up was forged in two million years of pre-history (or even ten thousand years), the question remains: does the complexity of modern social structures, the vastness of nations, the transformations of technology and trans-global communication make tradition an interesting developmental phenomenon, but one that no longer has any useful part to play?

We have answered some of these questions in examples above. Most significantly, community and identity still matter, a lot. If tradition is what creates what the nineteenth century British liberal political philosopher, John Stuart Mill, called a 'community of recollections',<sup>162</sup> and continues to be a major, if not the only, ingredient in the identity of the individual as a 'social animal', then clearly it



too matters a lot. If this does, indeed, continue to be the case, we would expect to find it operating in modern society and, if we find it, we need to see *how* it operates in modern society. This would lie at the heart of any attempt to work with tradition in a contemporary context in any respect but, in accordance with the subject of this book (from which we have strayed to secure the argument), with architecture and urban design.

## 20. Tradition in a Modern Context

Examining traditions in a modern context, we need to revisit the distinction between memory and history, as discussed above. Tradition is a form of memory and conforms to its criteria, to quote again Pierre Nora: 'Memory is a perpetually actual phenomenon, a bond tying us to the eternal present.'<sup>163</sup> Tradition too, in any contemporary situation, is a modern phenomenon which, by any definition, includes in some form a memory of the past. Indeed, as we have also established above, in this context it conforms to *all* our perceptions of the world: memory of the past is all that we have with which to navigate the present and the future. Collective memory is the way that communities remember and navigate the present and the future.

We can, therefore, with ease dismiss the usual canard that tradition *is* the past and that those that respond positively to tradition are turning back the clock. These are only rhetoric; neither condition is logically possible. Nonetheless, tradition is the framework with which to act out traditional activities and this framework, and therefore these activities, will have some relationship with a deliberately evoked memory of the past. This will take place in real time and will serve current objectives or ideas. As Edward

Shils says, 'When a tradition is accepted, it is as valid and as vital to those who accept it as any other part of their action or belief. It is the past in the present but it is as much part of the present as any very recent innovation.'<sup>164</sup> The only issue that remains is whether these objectives or ideas are currently appropriate. The fact that they are traditions will not make them so. Slavery is a tradition with a much greater heritage than its proscription; its status as an ancient tradition gives it no modern credibility.

When we find traditions in modern life, we are finding modern phenomena. We are, it follows, finding phenomena that respond to modern conditions. As all society, and indeed everything, changes, and as it is widely recognised that modern society changes in many respects more rapidly than ancient or even historic societies, we would, therefore, expect tradition to respond. This appears to be a contradiction; tradition may not *be* the past, but it is surely anchored in an unchanging past. We have, however, already established that not only does our record of a past, which we may consider to be immutable, change, but that our memory of that past is highly susceptible to modification. And so it is with tradition.

The modern German philosopher, Hans Georg Gadamer, sees tradition as an ever-changing phenomenon, distinct from the Enlightenment call to reason, anchored in the past but creating new meanings or interpretations (hermeneutics) out of its history.

The fact is that tradition is constantly an element of freedom and of history itself. Even the most genuine and solid tradition does not persist by nature because of the inertia of what once existed. It needs to be affirmed, embraced, cultivated. It is, essentially, preservation, such

as is active in all historical change. But preservation is an act of reason, though an inconspicuous one. For this reason, only what is new of what is planned, appears as the result of reason. But this is an illusion. Even where life changes violently, as in ages of revolution, far more of the old is preserved in the supposed transformation of everything that anyone knows, and combines with the new to create a new value.<sup>165</sup>

The adaptability of tradition is widely accepted. As David Gross confirms, 'no tradition is ever taken over precisely as it was given, or passed on precisely as it was received. Rather, it is always adapted to a situation. If a situation includes new elements not previously encountered, a tradition is rarely embraced just as it is, but is instead selectively adopted, and thereby modified and altered.'<sup>166</sup> And the British sociologist Anthony Giddens confirms, 'Traditions have an organic character: they develop and mature, or weaken and "die".'<sup>167</sup> We can take this further to conform to the principle that the past is always the guide to the navigation of the future, as the American anthropologist, Robert Winthrop, said in 1991, 'recent cultural theory recognizes tradition to be relatively fluid, capable of being invoked to justify or guide innovation, while conferring a sense of continuity with the past.'<sup>168</sup>

There are many historical examples. Traditional festivals commonly evolve. The San Fermín in Pamplona, Spain, for example, originating in the Middle Ages, had its famous bull run introduced in the nineteenth century and the *Chupinazo*, the opening with the firing of rockets, introduced in the later twentieth century. The introduction of new elements does not diminish the antiquity of the ceremony. It was long believed and is frequently cited that the Ise Jingu grand shrine in the Mie Prefecture in Japan has been ritually reconstructed in the same form every 20

years for 2,000 years, thereby maintaining the original form of the buildings. Old photographs and archaeology reveal a more complex situation. Not only were relatively recent changes made, but in the pre-modern period preservation of the form applied only to some key features. This does not take away from the tradition of symbolising renewal and rebirth.



27. Fiesta of San Fermín, Pamplona, Spain, the Chupinazo. Opening the festival with fireworks and the display of red scarves was added to the ancient ceremony in 1941.

The point at which the invention and addition of new elements in existing traditions becomes the invention of tradition itself can be a fine line. One of the most widely cited works in recent debates on tradition is *The Invention of Tradition*, edited by Eric Hobsbawm and Terrence Ranger, written in 1983 and now in its 24<sup>th</sup> edition.<sup>169</sup> The title itself can be used as an implied critique of tradition itself and the text is replete with adjectives such as ‘travesty’<sup>170</sup>,

'falsified'<sup>171</sup>, or 'bogus'<sup>172</sup>. The content, however, is made up of solid academic research. For example, the paper, 'The Highland Tradition of Scotland', by the eminent Oxford historian, Hugh Trevor-Roper, describes the invention of the modern Scottish kilt and the tartan system from, respectively, a more casual form of wrap-around cloak or plaid and the non-specific woven patterns that were often used for them. While the origin of modern Highland - now Scottish national - dress can accurately be traced back to the Romantic period and King George IV's visit to Edinburgh in 1822 (called by Trevor-Roper a 'farce'),<sup>173</sup> he does not explain how, even with this knowledge extant, the kilt and tartans remain a powerful cultural force in Scotland and for those of Scottish origin around the world.

Many of the papers in *The Invention of Tradition* show that these inventions - Welsh folklore, British royal ceremonial, the British Raj in India - were built on manipulations, extrapolations or exaggerations of existing traditions. While the examples given are, indeed, inventive, the question must remain: are these additions to traditions or inventions *de novo*? As Gross says, 'In the life of any tradition, no matter how many changes it undergoes, at least a few persistent elements remain from beginning to end. If they did not persist, the tradition would not be recognizable as the same tradition.'<sup>174</sup> The invented traditions or traditions that have been continuously modified need to have, at the very least, some convincing ancestry. The invention of kilts and tartans was based on some identifiable past. Ceremonials such as the French Bastille Day, or *La Fête Nationale* - which takes place on the anniversary of the storming of the Bastille (the definitive commencement of the French Revolution) - was not initiated until 1880, more than a century after the event, but this history still gives it a credible pedigree.



28. Tartan Army (Scottish football supporters) at the Arc de Triomphe, Paris. The modern kilt and systemised tartans were invented in the early nineteenth century for Highland clans based on their traditional wear. They are now an essential part of Scottish identity, including those that had no highland ancestry.

These traditions, invented or augmented, remain powerful and their credibility seems to rest on either the history of the tradition which is being changed, or the past event to which the invention is being attached. We can test this with two recent examples: the ceremonial dress of the European Court of Human Rights and the ceremonial dress of the U.S. White House Guard under President Nixon.

The European Court of Human Rights was set up in 1959 by the Council of Europe to adjudicate on breaches of human rights by the 47 member states of the Council, which had itself been founded nine years previously. The



court is an entirely new entity with no history. Its judges, however, wear gowns of a similar type to those worn in many other European courts. Judges worldwide wear distinctive gowns, often black, sometimes with white cravats or collars and occasionally with added colours – often red or purple. These are all based on the gowns worn by clerks or people of learning in the sixteenth century and also survive in this form in academic dress. These originally gave the authority of scholarship to the wearer and were elaborated for judges (such elaboration continues in France and Britain). Today, they survive as a tradition, often in stripped-down form and just black, and the tradition implies authority. The judges of the European Court of Human Rights had no history on which to base their position but, as they wear their newly designed gowns without any sense of irony, they borrow a symbolism of ‘authority by association’ with the established traditions of other historic courts.



29. *Róbert Ragnar Spanó, Judge in the European Court of Human Rights. The court was established in 1959 and the judges wear a version of the 17<sup>th</sup> century CE clerical gown, an historic symbol of learning and authority.*



President Nixon was a frequent visitor to other countries where, as the leader of a major power, he would be greeted with a parade of honour or other guards dressed in impressive historic uniforms with busbies, cuirasses or plumed helmets. Anxious to imbue the American state with similar pomp, he wanted his guards to have more impressive uniforms. His staff assembled a series of books of old uniforms and, inspired by these, he commissioned made-up ceremonial uniforms with gold braid and a plastic shako hat. These were only used once, when the British Prime Minister, Harold Wilson, visited in 1970.<sup>175</sup> They were received with such ridicule that first the hats and then the jackets were quietly withdrawn. As one correspondent in *Life* magazine wrote at the time, 'The European's uniforms are traditions of their past. America has no such past, so why pretend that we do?'<sup>176</sup> In fact, there was such a past: the West Point Military Academy was founded in 1802 and its parades feature elaborate historical uniforms. The problem with Nixon's guards' uniforms was they there was no convincing history. They eventually went to the Meriden-Cleghorn High School Marching Band in Iowa.

The establishment of new traditions cannot just be an imaginative invention, to be accepted they need some historic underpinning of sufficient credibility to allow them to be accepted, even when their relative novelty is known. But while ancient traditions may have their origins lost in distant time, many have to start somewhere, at some time, and their acceptance can be simply a matter of the time in which they have been established and practiced. The time-span put forward from various sources does not suggest that they have to have been in existence since 'time immemorial'. Shils tells us that a tradition, 'has to last over at least three generations – however long or short these are – to be a tradition. A way of expressing the duration of

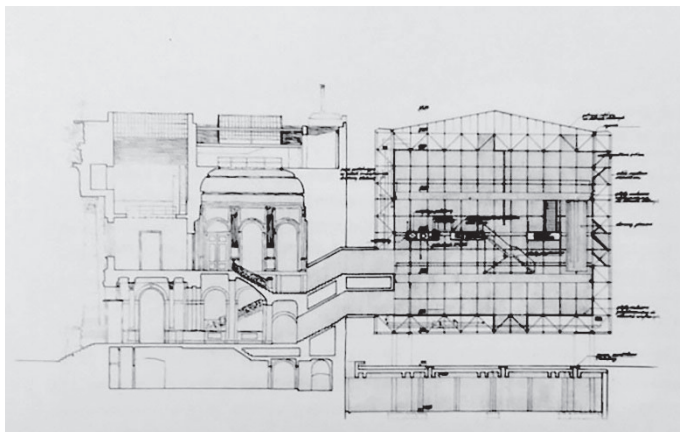
a tradition is to speak of it in terms of generations. This is not very precise because generations are themselves of different durations and their boundaries are too vague. In a school, for example, where children spend four years, a generation may only be four years long.<sup>177</sup> Gross confirms this.<sup>178</sup> Looking to other sources for minimum time-spans, European Union law, for example, stipulates that food described as, 'Traditional means proven usage in the community market for a time period showing transmission between generations; this time period should be the one generally ascribed as one human generation, at least 25 years.'<sup>179</sup> In practice this is generally interpreted as 50 years to the second transmission or three generations.

The consequence of this is that many groups who set themselves up as modern or non-traditional are, by any proper definition, practicing traditions. Modernism, which was, as we have seen, founded on a refutation of tradition, has today many ideological adherents and its forms continue to be used in the arts and architecture. These ideas and forms were first promulgated more than a century ago. This is rather more than three artistic and architectural generations and their continuity over this time, as well as the recognition of their heritage by their exponents, puts their activities firmly in the position of traditions. Even in the early days of Modernism, the great Anglo-American poet, T. S. Eliot, recognised the inevitable connection the modernist movement itself had with its predecessors in his 1919 article 'Tradition and the Individual Talent'. He wrote, 'No poet, no artist of any art, has his complete meaning alone. His significance, his appreciation is the appreciation of his relation to the dead poets and artists. You cannot value him alone; you must set him, for contrast and comparison, among the dead. I mean this as a principle of aesthetic, not merely historical, criticism.'<sup>180</sup> Comparison with past work may then be

through a contrast, but it is still tied to the past which it may seek to contradict. As the Enlightenment German satirist, Georg Lichtenberg, said, 'To do the opposite of something is also a form of imitation, namely an imitation of its opposite.'<sup>181</sup> Eliot continues with an instruction to the artist, 'What is to be insisted upon is that the poet must develop or procure the consciousness of the past and that he should continue to develop this consciousness throughout his career.'<sup>182</sup>

Modernism today has at least a strong consciousness of its *own* past and has tried to create an inheritance, in particular as put forward by Nikolaus Pevsner, an historian and dedicated promoter of Modernism, in his important book, *Pioneers of the Modern Movement*. This remains one of the most widely read architectural history books, it was first published in 1936 and, tellingly, had its title changed to *Pioneers of Modern Design* in 1949. It remains in print.<sup>183</sup> In order to find a tradition for a movement that *rejected* history and tradition, he went back to architects such Charles Voysey and Viollet-le-Duc, whose work was specifically *based* on historical traditions.<sup>184</sup> Perhaps this is the invention of an architectural tradition, much as kilts and tartans were invented from plaid and patterns. Furthermore, clearly unable to totally excise the significance of tradition, the idea that there is a tradition of radicalism or extreme change is put forward by adherents of modernism as a counterpoint to the idea that tradition is reactionary and anti-modern. The architecture of British modernist, Cedric Price, is described as in the 'Avant-Garde tradition'.<sup>185</sup> Modernist urban design is put within the 'tradition of radical intention'.<sup>186</sup> This seems to be counter-intuitive, how can you have an 'advance guard'(avant-garde) that is looking back and tradition that seeks to be non-traditional? Today, however, the principle is not wrong

but is probably not recognised by its exponents. The first generation of modernists, such as T. S. Eliot, were indeed radical or avant-garde, albeit as Eliot says, measured by the contrast and comparison with the past they rejected, but as soon as their ideas and forms were taken on by a second and third generation, they became a tradition. The only way to maintain radicalism and the avant-garde is to reject all that went before, including past radicalism, and this they do not do. As the American Professor of Political Science, Timothy W. Luke, confirms, 'Much of modernity is, was, and will be, traditional in its make-up. ... modernity itself perhaps develops traditional properties as new generations adapt its premises and implications to their everyday lives.'<sup>187</sup> As tradition is part of the identity of a community, the traditions of Modernism are part of the identity of the community of modernist artists and architects - or anyone else who wishes to identify with it. It is not so for anyone who does not.



30. *Fun Palace, proposed theatre workshop in East London by Cedric Price, 1964. Price, an influential teacher and writer in the 1960s and 70s is described as being in the avant-garde tradition.*

The wide picture of traditions that emerges, whether established by a long or short passage of time, by invention and from different viewpoints, now looks complex. As Shils affirms:

Plurality of traditions is a characteristic feature of large societies. Their constitutions may make no provision for it and their political rulers might make untiring efforts to prevent the plurality of opinions, especially on political, social and religious matters from being expressed, but all they can do is to repress their public expression and to prohibit or hamper the institutions through which such views could be propagated. The plurality of opinions in modern society is a result of many causes and reasons but, whatever they are, the plurality exists and cannot be extirpated. One of the reasons for this unextirpability is that the opinions have become traditions. Once an opinion becomes given, it is difficult to crush. Human beings become attached to their traditions and suffer great pains rather than renounce them under external pressure.<sup>188</sup>

As much as most people will belong to a series of communities, so they will identify those communities with their traditions, some of which may overlap. As the British art historian, Neil MacGregor, said, 'identity is always multiple, it is always selected'.<sup>189</sup> There are numerous options and sizes. Alan Dundes, scholar of Folklore at Berkeley, California, describes the range, 'a group, formed for whatever reason, has some expressive traditions which it calls its own. In theory, a group must consist of at least two persons, but generally most groups consist of many individuals. A member or a group may not know all other members, but he will probably know the common core of traditions belonging to the group, traditions which help the group have its sense of group identity.'<sup>190</sup> These traditions may be at a family level, a community of proximity, such as

a village or town, institutional, national level, or a non-geographical community level.

Most families recognise that there are certain ways of behaving that are specific to their family, many of them passed down (and modified) through the generations. This is one of the things that unites them as a family – as those who marry into them soon discover. Towns and villages have their own ceremonies, processions, fiestas, fetes, *karnival*, *feste* or other occasions such as specialist markets. These are often revived or enhanced to reinforce the identity of the place, both for the citizens - who must participate to give them any meaning at all - and for tourists who seek out what is distinctive in places. Engagement with these traditions is a matter of choice: recalcitrant family members may distance themselves from their ancestry as a rejection of their values or by adopting the traditions of their spouses or others; citizens are not compelled to engage in the formal celebrations or mores of the places in which they reside. Distinct sub-groups can form with their own patterns of behaviour, either because of another shared heritage or religion or as a deliberate act of divergence. Family and community traditions may overlap: key family ceremonies, such as weddings and funerals, usually feature ceremonial practices that maintain aspects of community identity and can survive in immigrant groups beyond other aspects of integration; community ceremonies, which are also private family celebrations, such as Christmas or Hindu Samskaras, may have particular family modifications added. Individuals may be participants in more than one of these communities of practice; it is their combination that is the make-up of the identity of the person as a social being.

The membership of institutions is always a matter of choice and institutions, to reinforce the solidarity on which they rely for their existence, are replete with traditional practices. Universities use freshman initiations, graduation ceremonies and distinctive gowns to inculcate loyalty during and beyond the education process. Guilds, professional institutions and trade unions have ceremonies, dinners, marches and chains of high office to affirm membership. Traditional signals, such as initials denoting membership, distinctive language (who calls windows ‘fenestration’, or openings ‘apertures’?) and even, as with freemasons, bodily contact or posture, affirm to fellow members or to the wider world institutional affiliation.



31. *Tolpuddle Festival, Tolpuddle, Dorset, England. A parade held every year since 1922 to commemorate the prosecution of early trade unionists in 1834. Trades Unions display their traditional banners.*

The armed forces are institutions that have a particular relationship between tradition and modernity. Solidarity amongst military personnel is an essential fighting

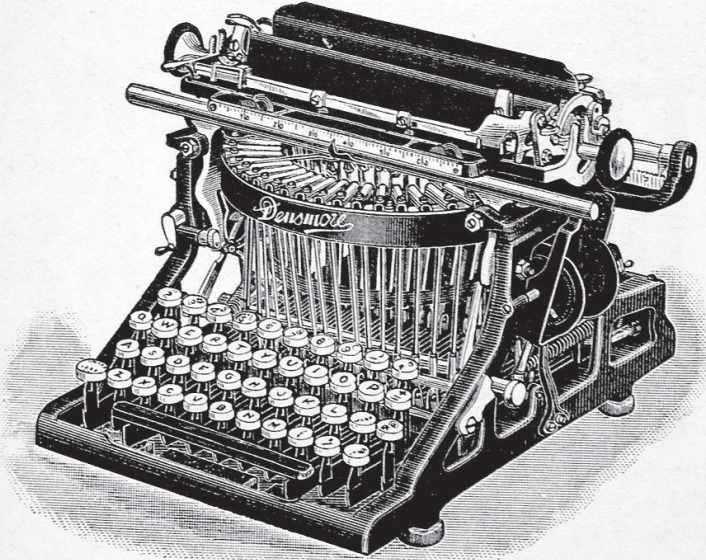


attribute, the willingness to take mortal risks for comrades that were possibly strangers on recruitment, is affected by the creation and nurturing of institutions such as regiments, companies or squadrons. As a lecturer at the British Naval College, Dartmouth, confirms, 'It's the traditions that make people willing to give up their lives'.<sup>191</sup> The identity of these units is jealously maintained through traditional attributes, such as nomenclature, ceremonies, drill and distinctive and decorative uniforms, usually with historic associations. At the same time, fighting forces are permanently engaged with a technological arms race with enemies and potential enemies; the adoption of the latest military hardware is imperative. There is no observed contradiction in these two pressures; both are real and both are essential; one is traditional, the other at the leading edge of technical change.



*32. French Republican Guard, Bastille Day, Paris. Traditional parade uniforms and the latest weapons are not seen as contradictory in the armed forces.*

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Washington, Nov. 23, 1895.

33. *Early typewriter. The keyboard layout was designed to slow typists down to prevent the key bars locking as they struck the paper. Electronic typewriters have made this requirement redundant but overlapping generations of typists have ensured its survival. This is a use-based skeuomorph.*

There is no evidence that advances in technology diminish traditional practice. Indeed, as I have argued previously, technological advance has its own traditional dynamic, which I named after an archaeological phenomenon: the ‘skeuomorph’.<sup>192</sup> The skeuomorphic process is the way a

new technological artefact is designed to incorporate features of the technology from which it developed, such as the decoration of early ceramic ware to look like basketwork. An investigation of our relationship with technology (and technological advance only exists for such a relationship) reveals that skeuomorphic features persist in modern technological developments, such that, 'artefacts carry with them the history of their evolution both in their technological development and in our use and perception of them.'<sup>193</sup> Equally, with an increase in communication through media, the nature of transmission is bound to change. The Cambridge sociologist, John B. Thompson, discusses these changes: 'with the development of the media, traditions were gradually uprooted; the bond that tied traditions to specific locales of face-to-face interaction was gradually weakened. In other words, traditions were gradually and partially *de-localized*, as they became increasingly dependent on mediated forms of communication for their maintenance and transmission from one generation to the next'<sup>194</sup> (emphasis in original). He goes on to describe the impact of this change, 'the uprooting of traditions was the condition for the re-embedding of traditions in new contexts and for the re-mooring of traditions to new kinds of territorial units that exceeded the limits of shared locales. Traditions were de-localized but they were not de-territorialized: they were refashioned in ways that enabled them to be re-embedded in a multiplicity of locales and re-connected to territorial units that exceed the limits of face-to-face interaction.'<sup>195</sup> Diasporic or religious communities, for example, can use mediated communication to reinforce the maintenance of their traditions. Making a comparison with the phenomenon of invented tradition and critically referencing Hobsbawm and Ranger's work, he concludes that, 'In a world increasingly permeated by communication media,

traditions have become increasingly dependent on mediated symbolic forms; they have become dislodged from particular locales and re-embedded in social life in new ways. But the uprooting and re-mooring of traditions does not necessarily render them inauthentic, nor does it necessarily spell their demise.<sup>196</sup>

If tradition is as fundamental and as open to change as we have argued, we would expect it to find its way into contemporary society. The idea that modernity itself (and particularly the theories of Modernism as discussed in Chapter IV) would lead to us, as Anthony Giddens says, 'Living in a Post-Traditional Society',<sup>197</sup> has not come to pass. John B. Thompson points out in another paper that for most people, 'the option of maintaining traditional ways or adopting modern life-styles does not present itself as an 'either/or' choice. On the contrary, they are able to organize their day-to-day lives in such a way as to integrate elements of tradition with new styles of living.'<sup>198</sup> We can see that tradition remains a powerful force in modern society, as much as the need for identity remains a powerful force for every individual and every individual in any society, at any time. As Gadamer confirms, 'we are always situated within traditions ... we do not conceive of what tradition says as something other, something alien. It is always part of us, a model or exemplar ...'<sup>199</sup>

Regardless of any recent invention, survival, revival, variety, modernity or antiquity, these traditions retain three key characteristics:

- they can change and evolve but they must have some perceptible and convincing ancestry, either through the passage of time, passing on of practice or by adoption or association;

- they may be part of a function, real or social, but they must be beyond that function and be ceremonial, expressive or decorative;
- they will provide some source of identity or definition of the culture of a group or community, such that the members of that group or community relate to and identify with them.



34. Hindu temple in a suburb of Nottingham, in the English Midlands. Diasporic societies take their traditions and their means of expression with them.

## 21. Whose Tradition? Tradition in Architecture and Urban Design

In this discussion on tradition, architecture and urban design have only made periodic appearances. As the subject of tradition is currently divisive in these professions, the importance of tradition needs to be



demonstrated in society at large, rather than just related to one or two disciplines. As we have established that the significance of tradition in modern society is a key factor in the identity of individuals, individuals as part of society and societies and communities more generally, it must become clear that this is highly relevant to architecture and urban design. These two disciplines are arts - and architecture is known as the mother of the arts - and they are also technical disciplines but, above all, they are professions that serve society. In spite of an atmosphere of self-importance, these disciplines are part of society but they are not prime movers. It is very rare indeed that architects and urban designers initiate and pay for any of their work and most of the time they will be acting in accordance with a brief or programme that is set by others, who may be public representatives, corporations or individuals, and they are regulated by public bodies. Furthermore, unlike most of the studio arts, their work is more often than not part of the daily experience of a local community which will have had no part in the brief, do not live or work in them and did not pay for them.

Politics and economic and social development are the primary drivers of the way society is formed and changes, and will be the principal influence on architects and urban designers, as members of society, as well as through the instructions they will receive on their work. In reviewing historic architecture and urban design, we would expect broad social influences to be reflected - and indeed we do. The aggressive pomp of the Roman church in the religious struggles of the seventeenth century is represented, and most certainly not initiated, by the Baroque. The yearning for a new and different society after the trauma of the Second World War was accurately illustrated by the spread of Modernism. If tradition is a persistent aspect of society

and social identity, as we have demonstrated, architecture and urban design should reflect this.

In the present theoretical background of the disciplines of art and architecture, there is at times a disjunction with the parts of the society which they serve. In the early twentieth century, the *avant-garde* was intended to be exactly as it translates, an advance guard, the skirmishers that harry the enemy before the main army arrives. This advance guard felt that the battle they were fighting was of such historic, practical and moral rectitude that the rest of the army – the rest of society – must have been behind them. It turned out they were not. As time went on, generations of practice were added and the advance guard became its own community, with its own identity shared with the other arts and, as we have seen, its own traditions. It became a self-identifying elite and, as the global influence of the north Atlantic countries spread, an international elite. This identity is based on core philosophies – that have become traditions - seeking to distance themselves from traditions that relate to a past with which they do *not* wish to identify. This separates these designers from the identity of other groups or communities that do identify with traditions which specifically relate to their (non-modernist) historic art or built surroundings.

If architects and urban designers are to serve groups and communities other than their own, it seems obvious that they should respond positively to the identity and so the traditions of these other groups and communities. To do so, there must first be a recognition of the importance of tradition to the identity and therefore to the social wellbeing of communities, and secondly an understanding of how tradition functions in society and modern society. These were the subject of the analysis above.



A better understanding of tradition gives some indication of the opportunities and constraints of designing in such a way that relates to tradition. These principles will be general in the first instance, do not refer to any one tradition and will relate to the three key characteristics identified above.

- Traditions may literally copy something from the past but, to be traditions, they need not do so. There is room for change, addition and invention. There only need be some ancestry or continuity that is passed down and this must be of such a form and clarity that members of the community recognise and accept the ancestry and continuity of that form. It is possible that the members of the community will not articulate the role of a tradition as a tradition, but they will most likely identify it if it is taken away or ceases.
- Traditions will be more than a pragmatic response to a problem. They must express themselves as a tradition and to do so will need to carry some features that identify themselves as more than functional and as a particular tradition. These features could be symbolic, ceremonial or decorative and will have some visible commonality with other examples of the tradition.
- Traditions need to be forms or expressions with which a community can identify. This will vary from community to community and can only be discovered by engaging with that community. As this discussion concerns the built environment, these forms or expressions will be building type or style, decorative type or style or the arrangement of buildings or landscape and these will be present and visible.

Traditions defined this way stand on their own as significant factors in the identity of communities. As with the second definition above, they may be functional and, in their origin, one of Boyd and Richerson's cultural inheritances – cultural means of transferring communally beneficial information. But if they are defined solely by the functional efficacy of the information they transfer, they will be vulnerable simply to being proven wrong or outdated, cease to be useful and so expire. This would make cultural identity vulnerable to unpredictable technical change but, as we have seen, communal identity is resilient to change. This distinguishes the traditions that constitute identity from those that simply pass on collective technical wisdom. While it may be correct that traditional construction techniques are better than those developed more recently, this position could be overtaken by technical innovations that deliver better financial, practical and environmental outcomes. Solid fuel and open fires, for example, were, for millennia, the traditional method for heating rooms and developed their own associated and distinctive decorative features, varying in different cultures. Their core function has, however, been superseded by higher standards of insulation, more efficient methods of heat generation and the need to avoid the resulting environmental damage. They are being abandoned in new construction and when they are retained it is largely for their atmospheric and visual aesthetics. If the identity of communities relied solely on the *practical* defence of traditions of this nature, rather than their decorative representations, they would be very fragile indeed, and we know they are not. This makes any argument for tradition simply based on best technical practice an entirely different argument to that based on cultural identity, as defined above.



35. *The Haughwout Building, Broadway, New York City, with a cast iron façade. The classical tradition in architecture is not tied to its original means of construction. Traditions are symbolic and not tied to their technical origins.*

Early modernist architects believed that technical progress and function were engines of their revolution and 'Functionalism' was one of the many names for the

movement. Hannes Meyer, successor to Walter Gropius as the Head of the Bauhaus School in Dessau, proposed in 1928 that a 'functional ... interpretation of architecture as giving shape to the functions of life, logically leads to pure construction.'<sup>200</sup> Although this idea lingers on in modernist architectural thinking, the misinterpreted slogan of 'form ever follows function', coined by the Chicago architect Louis Sullivan in 1896,<sup>201</sup> has long been superseded as Modernism has developed its own traditional aesthetic vocabulary. We can take a recent building as an example of a modernist tradition. There could be many examples and each could be analysed in the same way, with a greater degree of complexity and requiring more explanation for a non-architectural reader. To make a point that will be understood immediately by a professional, but such that it can be readily understood by a non-architect, the example chosen is particularly clear.

The winner of the 2017 World Architectural Festival *The Villa - Completed Buildings* category was 'Bach with Two Roofs' by Irving Smith Architects, a second home for a young family in a forest clearing overlooking Golden Bay in New Zealand. All members of the architectural community will immediately recognise its ancestry and continuity with the German Pavilion for the 1929 International Exposition in Barcelona by Mies van der Rohe (now only existing in facsimile). While the building will most certainly perform its function, any number of features – flat over-sailing roofs, planar cubic form, narrow columns etc. – are discretionary, decorative and common to other examples of the tradition. The award itself, from important judges from the international architectural community, is proof enough that this is a form, or an expression, with which this community identifies.



36. *Bach with Two Roofs* by Irving Smith Architects, Golden Bay in New Zealand, 2017. Winner of the Villa category at the World Architecture Festival. In the tradition of Mies van der Rohe.



37. Facsimile of the German Pavilion at the 1929 International Exposition, Barcelona, by Mies van der Rohe. Possibly one of the most influential modernist buildings. Its forms and aesthetic have become modernist traditions.

The wider community can, and often does, identify with different traditions. For example, in the Netherlands in 2013, at a ‘co-creatie’ (co-create) event for a new area of Eemnes Zuidpolder in the province of Utrecht, residents were invited to participate in the design. This was organised with the help of urban designer, Peter Verschuren of Wissing-urbanism. The choices included house price, type and architectural style. The majority chose housing styles of a broadly traditional type, not necessarily exact copies but, as one participant said, ‘a bit of the style of Eemnes, of the old part’.<sup>202</sup> At the time of writing, some 500 houses have been constructed, in stages where variety is controlled by the use of different architects. A new district in the character of the historic traditions of the area has been created without compromising modern living standards, construction methods or the use of contemporary features.



*38. New district of Eemnes Zuidpolder in the Netherlands, from 2013, planned using a co-create process with local residents and reflecting their aesthetic preferences.*



The desire by non-professionals to maintain traditions based on the existing character of areas is commonplace. The contrast between these preferences and those of architects is widely evidenced by research in the UK, the USA, Canada, Spain, Chile, Turkey, Malaysia, China and elsewhere.<sup>203-211</sup> This should not be surprising where the majority of people are not influenced by the ideological or stylistic traditions of the design professions and live in places with an historic identity, which will, for its citizens, be a part of their own identity.

For architects and urban designers, as with any creative discipline that has its own identity, it is not a question of *whether* to design according to traditions, it is a questions of *which* community's traditions will be expressed. It is unrealistic to believe that design practitioners will renounce the identity they share with their community of fellow practitioners – all professions crave the approval of their peers. Nonetheless, each of us has a number of overlapping identities and it would be beneficial and socially responsible for there to be some deliberate, positive and constructive alignment of traditions between those who intervene significantly in the cultural identity of a community with their designs for buildings and places, and the community which is affected by these interventions. Regrettably, this is very often not the case.

## Endnotes

- 1 Cicero, *De Oratore*, 55 BCE, Book I, V, 18
- 2 Thomas Fisher, 'What Memory? Whose Memory, in *Memory and Architecture*, Eleni Bastea (ed.), Albuquerque, New Mexico, University of New Mexico Press, 2004, 284
- 3 Marquis de Chastellux, *De la félicité publique, Tome Seconde*, Amsterdam, Marc Michel Rey, 1772, 278
- 4 David Gross, *Lost Time: on Remembering and Forgetting in Late Modern Culture*, University of Massachusetts Press, 2000, 57



- 5 Nico Saieh, 'Multiplicity and Memory: Talking About Architecture with Peter Zumthor', *Arch Daily*, 2 November, 2010  
<https://www.archdaily.com/85656/multiplicity-and-memory-talking-about-architecture-with-peter-zumthor>
- 6 Anna Winston, 'Architecture has a serious problem with communication says Rem Koolhaas', *Dezeen*, 24 May 2016,  
<https://www.dezeen.com/2016/05/24/rem-koolhaas-architecture-serious-problem-communication-oma-american-institute-architects-aia-convention/>
- 7 'Nithurst Farm, West Sussex, Adam Richards for Adam Richards,' London, *RIBA Journal*, June 2019, 35
- 8 Tony Chapman, 'Blue Sky Thinker', London, *RIBA Journal*, February 27, 2009, 27
- 9 Dodie Kazanjian, 'With His New Historic Design, Architect David Adjaye Has Hit the Top', *Vogue*, June 21, 2016,  
<https://www.vogue.com/article/architect-david-adjaye-national-museum-of-african-american-history-and-culture?verso=true>
- 10 <https://designmuseum.org/exhibitions/david-adjaye-making-memory>, Deyan Sudjic, 'Interview with David Adjaye', *Design Museum Exhibition*, Feb to May 2019
- 11 'James Pallister speaks to Daniel Libeskind', London, *Architects Journal*, 21 February 2013, 12-13
- 12 'Max Hofmann interviews Daniel Libeskind', DW-TV, New York, DW Akademie, Bonn, Berlin. 24.10.2011  
<https://www.dw.com/en/memory-is-essential-to-architecture-says-daniel-libeskind/a-15482283>
- 13 Notes from, 'Architecture and Memory', lecture, University of Oxford, 26 February 2018
- 14 *Architects Journal*, op cit
- 15 Paul Ricoeur, *Memory, History, Forgetting*, trans. Kathleen Blamey and David Pellauer, Chicago, University of Chicago Press, 2004, 42
- 16 Margaret Olin 'The Stones of Memory: Peter Eisenman in Conversation', Leiden, Netherlands, *Images*, Volume 2: Issue 1, 2008, 129-130
- 17 <https://www.iwm.org.uk/history/8-things-you-didnt-know-about-the-iwm-north-building>
- 18 <https://libeskind.com/work/names-monument/>
- 19 George Santayana, *Reason in Common Sense, volume 1 of The Life of Reason*, New York, Charles Scribner's Sons, 1905, 284
- 20 Allan Megill, 'History, Memory, Identity', *History of the Human Sciences*, vol 11, no 3, 1998, 52

- 21 Gunter Behnisch, 'Streit um Stirlings Preis', *Frankfurter Allgemeine Zeitung*, 29 December, 1977
- 22 Oliver Wainwright, "'Norman said the president wants a pyramid": how starchitects built Astana', Manchester, England, *The Guardian*, October 17 2017, <https://www.theguardian.com/cities/2017/oct/17/norman-foster-president-pyramid-architects-built-astana>
- 23 <https://www.hrw.org/world-report/2015/country-chapters/kazakhstan>
- 24 Wainwright, op cit
- 25 Enactments and Approved Papers of the Control Council and Coordinating Committee, 1st of March 1946 to 30th of June 1946, Directive 37, Army Library, Washington DC.
- 26 Egon Eiermann: Briefe 158, Südwestdeutsches Archiv für Architektur und Ingenieurbau
- 27 Text of speech by Baron von Lupin at the Arts Club in Chicago, *Mies Papers, 1-2, container 39*, Library of Congress Manuscript Division Washington, DC.
- 28 Kathleen James-Chakraborty, *Modernism as Memory: Building Identity in the Federal Republic of Germany*, Minneapolis, Minnesota, University of Minnesota Press, 2018, 200
- 29 Aleida Assmann, *Cultural Memory and Western Civilization*, New York, Cambridge University Press, 2012 (1999), 54
- 30 Vladimir Bologovsky, *Conversations with Architects in the Age of Celebrity*, Berlin, DOM Publishers, 2015, 245-6
- 31 <https://www.designboom.com/architecture/ramon-esteve-interview-01-01-2016/>
- 32 Paul Ricoeur, *Memory, History, Forgetting*, trans. Kathleen Blamey and David Pellauer, Chicago, University of Chicago Press, 2004, 21
- 33 E. H. Carr, *What is History?* London, Palgrave, 1961, 99
- 34 Penelope Lively, *How it all Began*, London, Penguin, 2102, 30
- 35 Thomas Carlyle, 'On History Again' (1833) in *Critical and Miscellaneous Essays in Five Volumes*, Vol III, London, Chapman and Hall, 1899, 172
- 36 Aleida Assmann, 'Canon and Archive' (2010), in Jeffrey K. Olick, Vered Vinitzky-Seroussi, David Levy (eds.), *The Collective Memory Reader*, Oxford, Oxford University Press, 2011, 337
- 37 Appian of Alexandria, *Punic Wars, Book 27*, c 165 CE, 132, records that the Roman General Scipio Africanus shed tears and quoted from the Illiad on ordering the destruction of the city.
- 38 Robert Bevan, *The Destruction of Memory: Architecture at War*, London, Reaktion Books, 2006, 60

- 39 *Hansard*, UK Parliament, Sir Archibald Sinclair's Statement, HC  
Deb 11 March 1943 vol 387 cc873-921
- 40 Niall Rothnie, *The Baedeker Blitz: Hitler's attack on Britain's  
historic cities*, London, Ian Allan Publishing, 1992, 69
- 41 Louis P. Lochner, trans., *The Goebbels Diaries 1942-43*, London,  
Doubleday, 1948, 189-90
- 42 Footnote, *Akten zur deutschen auswärtigen Politik, ser. D, vol. 7*,  
Baden-Baden, Impr.nationale, 1961, 193
- 43 Bevan, op cit, 42
- 44 Slavenka Drakulić, 'Falling Down: A Mostar Bridge Elegy', *The New  
Republic*, New York, 13 December 1993, 14–15
- 45 <https://www.frauenkirchedresden.de/en/reconstruction/>
- 46 Lisa Miller, 'Colonial Williamsburg Goes Hollywood with Disney  
Antics', New York, *The Wall Street Journal*, August 22nd 1997
- 47 Robert Harbison, *Ruins and Fragments: tales of loss and  
discovery*, London, Reaktion Books, 2015, 209
- 48 Peter Blundell Jones, 'In search of authenticity', London, *The  
Architects Journal*, 1991, republished, 24 August 2016
- 49 Pierre Nora, 'Between Memory and History: Les Lieux de  
Memoire', *Representations*, 26 Spring 1989, 8
- 50 Aleida Assmann, *Cultural Memory and Western Civilization: arts of  
memory*, New York, Cambridge University Press, 2011, 122
- 51 David Lowenthal, *The Past is a Foreign Country, Revisited*,  
Cambridge, Cambridge University Press, 2015, 346
- 52 Assmann, op cit, 265
- 53 <https://whc.unesco.org/en/list/30>
- 54 World Heritage Committee, 35th Session, Paris, UNESCO  
Headquarters, 19th to 29th of June 2011, Mission Report,  
Cultural Landscape and Archaeological Remains of the Bamiyan  
Valley, Afghanistan
- 55 Charles Paul Freund, 'Wonders Never Cease, Destruction was the  
luckiest thing to happen to the Buddhas of Bamiyan', New York,  
*The Slate*, January 18 2002
- 56 Ibid
- 57 Bevan, op cit, 189-90
- 58 <https://www.cbsnews.com/news/rebuilding-buddha/>  
CBSNews.com staff CBSNews.com staff, November 20, 2001
- 59 <https://en.unesco.org/>
- 60 [https://www.icomos.org/charters/venice\\_e.pdf](https://www.icomos.org/charters/venice_e.pdf)
- 61 <https://www.icomos.org/en/>
- 62 [http://www.unesco.org/new/en/cairo/culture/tangible-cultural-  
heritage/](http://www.unesco.org/new/en/cairo/culture/tangible-cultural-heritage/)

- 63 <https://www.icomos.org/en/what-we-do/focus/human-rights-and-world-heritage/179-articles-en-francais/ressources/charters-and-standards/372-the-stockholm-declaration>
- 64 <http://smarterheritage.com/wp-content/uploads/2015/03/KRAKOV-CHARTER-2000.pdf>
- 65 <https://www.icomos.org/en/charters-and-texts/179-articles-en-francais/ressources/charters-and-standards/170-european-charter-of-the-architectural-heritage>
- 66 Venice Charter, op cit
- 67 <https://www.icomos.org/en/resources/charters-and-texts/180-articles-en-francais/chartes-et-normes/383-resolutions-of-the-symposium-on-the-introduction-of-contemporary-architecture-into-ancient-groups-of-buildings-at-the-3rd-icomos-general-assembly>
- 68 [https://www.icomos.org/charters/towns\\_e.pdf](https://www.icomos.org/charters/towns_e.pdf)
- 69 <https://www.icomos.org/charters/nara-e.pdf>
- 70 3rd ICOMOS General Assembly, op cit
- 71 [https://australia.icomos.org/wpcontent/uploads/Burra-Charter\\_1979.pdf](https://australia.icomos.org/wpcontent/uploads/Burra-Charter_1979.pdf)
- 72 Jeffrey K. Olick, Vered Vinitzky-Seroussi, David Levy, 'History, Memory, and Identity, introduction', in Jeffrey K. Olick, Vered Vinitzky-Seroussi, David Levy, op cit, 178
- 73 Barbara A. Misztal, *Theories of Social Remembering*, London, Open University Press, 2003, 99-100
- 74 A. Portelli, *The Battle of the Valle Giulia: Oral History and the Art of Dialogue*, Madison, Wisconsin, University of Wisconsin Press, 1997, 42
- 75 Y. H. Yerushalmi, *Zakhor: Jewish History and Jewish Memory*, 2nd edn. Seattle, University of Washington Press, 1966, 86
- 76 J. Prager, *Presenting the Past: Psychoanalysis and the Sociology of Misremembering*, Cambridge, Massachusetts, Harvard University Press, 1998, 125
- 77 Charles Fernyhough, *Pieces of Light: The New Science of Memory*, London, Profile Books, 2012, 145
- 78 Aleida Assmann, op cit, 322
- 79 Venice Charter, op cit
- 80 [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/757054/Revised\\_Principles\\_of\\_Selection\\_2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757054/Revised_Principles_of_Selection_2018.pdf)
- 81 <http://www.icomos-isc20c.org/madrid-document/>
- 82 <https://www.icomos.org/en/and/169-the-declaration-of-amsterdam>

- 83 Andrew Howell, 'How old should heritage be?' London, *Heritage*, Summer 2019, 14
- 84 *Maurice Halbwachs on Collective Identity*, edited, translated and introduction by Lewis A. Coser, Chicago, University of Chicago Press, 1992, 139-40
- 85 Jose Harris (ed.), *Tonnies, Community and Civil Society*, trans. Jose Harris and Margaret Hollis, Cambridge, Cambridge University Press, (1997) 2001, 13
- 86 Colin Bell and Howard Newby, *Community Studies: An Introduction to the Sociology of the Local Community*, London, Harper Collins, 1972, 15
- 87 Aristotle, *Politics*, 1253a
- 88 David E. Pearson, 'Community and Sociology', *Society*, 32 (5), 1995, 47
- 89 *Systemic Sociology, the Collected Works of Karl Mannheim, Vol 8*, Routledge and London, Kegan Paul, 1957, 114
- 90 Anthony P Cohen, *The Symbolic Construction of Community*, London, Routledge, 1985, 118
- 91 Robert Bellah, Richard Madsen, William M. Sullivan, Ann Swidler, and Steven M. Tipton, 'Habits of the Heart: Individualism and Commitment in American Life', (1985), in Jeffrey K. Olick, Vered Vinitzky-Seroussi, David Levy, op cit, 229-30
- 92 James Fentress and Christopher Wickham, *Social Memory*, London, Blackwell, 1992, 25
- 93 Lewis A. Coser, op cit, 38
- 94 Idem, 222
- 95 Idem, 182
- 96 Idem, 172-3
- 97 Idem, 224
- 98 Idem, 172-3
- 99 Gross, op cit, 107-8
- 100 <http://web.mit.edu/allanmc/www/hawlbachsspace.pdf>, 6
- 101 Idem, 2
- 102 Ibid
- 103 Aldo Rossi, *The Architecture of the City*, trans. Diane Chirardo and Joan Ockman, Cambridge, Massachusetts, MIT Press, 1982, 130-1
- 104 Marc Bloch, 'Mémoire collective, tradition et coutume: À propos d'un livre récent', *La Revue de Synthèse*, (1925), in Jeffrey K. Olick, Vered Vinitzky-Seroussi, David Levy, op cit, 151
- 105 Brian Ladd, *The Ghosts of Berlin*, Chicago, The University of Chicago Press, 1997, 2

- 106 Denis Diderot and Jean La Rond d'Alembert, *The Encyclopedia: systematic dictionary of the sciences, arts and crafts*, Paris, 1751–1772, entry on 'Eclecticism'
- 107 Jürgen Habermas, 'Modernity – an Incomplete Project' in Hal Foster (ed.) *The Anti-Aesthetic, Essays on Post-Modern Culture*, New Press 1998 (Bay Press 1983)
- 108 'De Stijl' Manifesto I, 1918, in Ulrich Conrads, *Programmes and Manifestos on 20th-Century Architecture*, Cambridge, Massachusetts, MIT Press, 1970 (first publ. in German 1964), 39
- 109 Le Corbusier, *Towards a New Architecture* (Vers une Architecture), trans. Frederick Etchells, London, The Architectural Press, 1970, 11-12
- 110 Hanno Rauterberg, *Talking Architecture*, Munich, Prestel, 2008, 67
- 111 John Allan, *Berthold Lubetkin: Architecture and the Tradition of Progress*, London, Artifice Books on Architecture, 2013
- 112 Quoting Reyner Banham, Chris Abel, *Architecture and Identity: responses to cultural and technological change*, 2nd edn, Oxford, Architectural Press, (1997) 2000, 116
- 113 Quoting Renzo Piano team on Kansai International Airport, idem, 129
- 114 Edward Shils, *Tradition*, Chicago, University of Chicago Press, 1981, 321
- 115 Idem, 31
- 116 Ronald William Brunskill, *Illustrated Handbook of Vernacular Architecture*, London, Faber and Faber, 1971, 27-8
- 117 Eric Hobsbawm and Terrence Ranger (eds.), *The Invention of Tradition*, Cambridge, Cambridge University Press, 1983, 2
- 118 Shils, idem, 13-14
- 119 Gross, idem, 18
- 120 Ibid
- 121 Roger Scruton, *Culture Counts: Faith and Feeling in a World Besieged*, New York, Encounter Books, 2007, 5
- 122 Stephen Shennan, *Genes, Memes and Human History: Darwinian Archaeology and Cultural Evolution*, London, Thames and Hudson, 2002, 66
- 123 Hannah Fluck, 'Culture in Lower Paleolithic: Technological Variability in Middle Pleistocene Europe', in Benjamin W Roberts and Mark Vander Linden, (eds.), *Investigating Archaeological Cultures*, New York, Springer, 2011, 78
- 124 Cameron Petrie, "'Culture", Innovation and Interaction across Southern Iran from the Neolithic to the Bronze Age', in idem, 155

- 125 Daniela Hofmann and Penny Bickle, 'Culture, Tradition and the Settlement Burials of the *Linearbandkeramik* Culture', in idem, 185
- 126 Peter Bellwood, Geoffrey Chambers, Malcolm Ross and Hsiao-chun Hung, 'Are "Cultures" inherited? Multidisciplinary Perspectives on the Origins and Migrations of Austronesian-Speaking Peoples Prior to 1000 BC', in idem, 347
- 127 Felix Riede, 'Steps Towards Operationalising an Evolutionary Archaeological Definition of Culture', in idem, 245
- 128 William McGrew, *The Cultured Chimpanzee: Reflections on Cultural Primatology*, Cambridge, Cambridge University Press, 2004, 81
- 129 T. Nishida, 'Local traditions and cultural transmission', in B. Smutts, D. L. Cheney, R. M. Seyfarth, R. W. Wrangham, T. T. Struhaker (eds.) *Primate Societies*, Chicago, University of Chicago Press, 1987, 462
- 130 Bob Grant, 'Do Chimps Have Culture?' *The Scientist*, Aug 1, 2007, [scientist.com/uncategorized/do-chimps-have-culture-46242](http://scientist.com/uncategorized/do-chimps-have-culture-46242)
- 131 William McGrew, 'Ten dispatches from the chimpanzee culture wars', in F. B. M. de Waal, P. L. Tyack (eds), *Animal Social Complexity, Intelligence, Culture and Individualised Societies*, Cambridge, Massachusetts, Harvard University Press, 2005
- 132 William McGrew, 2004, op cit, 25
- 133 Idem, 163
- 134 Michael Tomasello, 'The Question of Chimpanzee Culture', in R.W. Wrangham, W. C. McGrew, F. B. M de Waal, P.G. Heltne, *Chimpanzee Cultures*, Harvard University Press, 1994, 302
- 135 Frans B. M. de Wall, 'Chimpanzee's Adaptive Potential: a comparison of social life under captive and wild conditions' in ibid, 256
- 136 *The Scientist*, op cit.
- 137 Robert Boyd and Peter J. Richerson, *The Origin and Evolution of Cultures*, Oxford, Oxford University Press, 2005, 377-8
- 138 Robert Boyd and Peter J Richerson, *Culture and the Evolutionary Process*, Chicago, University of Chicago Press, 1985, 20
- 139 Idem, 33
- 140 Boyd and Richerson, 2005, op cit, 52
- 141 Boyd and Richerson, 1985, op cit, 79-80
- 142 Boyd and Richerson, 2005, op cit, 424
- 143 Idem, 16
- 144 Idem, 44
- 145 Idem, 14-15
- 146 Non-Adaptive Features, [www.science.org.au-curious](http://www.science.org.au-curious)



- 147 S. J. Gould and R. C. Lewontin, "The spandrels of San Marco and the Panglossian Paradigm: a critique of the adaptationist programme." *Proceedings of the Royal Society of London, Series b*, Vol. 205, No 1161, pp 581-598
- 148 Boyd and Richerson, 1985, op cit, 283
- 149 Boyd and Richerson, 2005, op cit, 380
- 150 Idem, 394-5
- 151 H. Tajfel, "Experiments in intergroup discrimination", *Scientific American*, 223, 1970, 102
- 152 Manuel Castells, *The Power of Identity*, Blackwell, 2004, 63-4
- 153 P. B. Hutt, "The Jewish Dietary Laws and their Foundation", *Harvard Library*, winter 1994
- 154 Cass R. Sunstein, *Going to Extremes: how like mind unite and divide*, Oxford. Oxford University Press, 2009, 42
- 155 Boyd and Richerson, 1985, op cit, 268-9
- 156 Geoffrey F. Miller, 'Sexual Selections for Cultural Displays', Robin Dunbar, Chris Knight and Camilla Power (eds.) *The Evolution of Culture*, Edinburgh, Edinburgh University Press, 1999, 75-6
- 157 Hans Georg Gadamer, *Truth and Method*, trans. Joel Weinsheimer and Donald G. Marshall, Bloomsbury, London, 2013 (1975), 407
- 158 J. K. Chambers, *Sociolinguistic Theory: Linguistic Variation and Its Social Significance*, London, Basil Blackwell, 1995, 208, 250
- 159 Benedict Anderson, *Imagined Communities*, London, Verso, 1983, 2016 edn, 33
- 160 Quoted by Andrew S. Curran, *Diderot and the Art of Thinking Freely*, New York, Other Press, 2009, 8
- 161 Jürgen Habermas, *The Philosophical Discourse of Modernity*, Cambridge, Polity Press, 1987 (1985), 107
- 162 John Stuart Mill, *The Collected Works of John Stuart Mill, Volume XIX - Essays on Politics and Society Part 2 (Considerations on Rep. Govt.)*, Toronto, University of Toronto Press, 1977, 546
- 163 See footnote 49
- 164 Shils, op cit, 13
- 165 Gadamer, op cit, 293
- 166 David Gross, *The Past in Ruins: Tradition and the Critique of Modernity*, Amherst, Massachusetts, University of Massachusetts Press, 1992, 14
- 167 Anthony Giddens, 'Living in a Post-Traditional Society', in Ulrich Beck, Anthony Giddens, Scott Lash, *Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order*, Cambridge, Polity Press, 1994, 62-3

- 168 Robert H. Winthrop, *Dictionary of Concepts in Cultural Anthropology*, New York, Greenwood, 1991, 302
- 169 Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, London, Verso, 2016 (1983)
- 170 Idem, 30
- 171 Idem, 41
- 172 Idem, 44
- 173 Idem, 33
- 174 Gross, 1992, op cit, 18
- 175 Charles Edward Stuart, *Never Trust a Local: Inside the Nixon White House*, New York, Algora Publishing, 2005, 108-9
- 176 Letter from Janey Millious, *Life*, February 27 1970, 20A
- 177 Shils, op cit, 15
- 178 Gross, 1992, op cit, 10
- 179 Kristberg Kristbergsson and Jorge Oliveira (eds.), *Traditional Foods: General and Consumer Aspects*, New York, Springer, 2016, 4
- 180 T. S. Eliot, 'Tradition and Individual Talent', London, *The Egoist*, No. 4, Vol. VI, September December 1919, 55
- 181 Georg Christoph Lichtenberg, *Notebook D*, 1773-1775, 96
- 182 Eliot, idem
- 183 Nicolaus Pevsner, *Pioneers of Modern Design*, London, Palazzo Editions, 2011
- 184 See footnote 94 Chapter I
- 185 Jacobo García-Germán, 'Cedric Price', The Architectural Association and others, 1968, *Radical Pedagogies*, <https://radical-pedagogies.com/search-cases/e18-architectural-association>
- 186 Alexis Kalagas, Alfredo Brillembourg , Hubert Klumpner, 'What does "radical urbanism" mean today?' *The Architects' Newspaper*, New York, April 12, 2017
- 187 Timothy W. Luke, 'Identity, Meaning and Globalization: Detraditionalization in Postmodern Space-time Compression', in Paul Heelas, Scott Lash, Paul Morris (eds.), *Detraditionalisation*, London, Blackwell, 1996, 117
- 188 Shils, op cit, 255
- 189 Verbatim notes on conference 'Who do we think we are?' British Museum, July 13th 2004 (Neil McGregor, Patrick Wright, Paul Gilroy, Peter Bazalgette)
- 190 Alan Dundes, 'What is Folklore?', in Alan Dundes (ed.), *The Study of Folklore*, New Jersey, Prentice-Hall, 1965, 2

- 191 Tom Uttley, 'Tradition at the Heart of a Naval Institution', *The Telegraph*, London, July 24th 2004, 12
- 192 Robert Adam, 'Tin Gods: Technology and Contemporary Architecture', *Architectural Design*, London, October 1989 nos. 9/10, VIII-XVI
- 193 Ibid, XVI
- 194 John B. Thompson, *The Media and Modernity: a social theory of the media*, Cambridge, Polity Press, 1995, 197
- 195 Idem, 195
- 196 Idem, 202
- 197 Beck, Giddens, Lash, op cit, 56
- 198 John B Thompson, 'Tradition and Self in a Mediated World', in Heelas, Lash and Morris, op cit, 95
- 199 Gadamer, op cit, 294
- 200 Hans Meyer, 'Building' (1928), in Ulrich Conrads, op cit, 119
- 201 Sullivan, Louis H. 'The tall office building artistically considered', *Lippincott's Magazine*, Philadelphia, March 1896, 409
- 202 <https://www.youtube.com/watch?v=z6a4dbDaso4>
- 203 Robert Gifford, Donald W. Hine, Werner Muller, Clem Kelly, T. Shaw, 'Why architects and laypersons judge buildings differently: Cognitive properties and physical bases', *Journal of Architectural and Planning Research*, 19, 2 June 2002, 131-148
- 204 Kimberley Devlin and Jack L. Nasar, 'The Beauty and the Beast: some preliminary comparisons of 'high' versus 'popular' and public versus architect judgements of same', *Journal of Environmental Psychology*, 1989 (9), 333-344
- 205 Francisco Contreras Trávez and David Milner, 'Architecture for Architects? Is there a "design disconnect" between most architects and the rest of the non-specialist population?' *New Design Ideas*, Vol 3, No. 1, 2019, 32-43
- 206 Alejandro García Hermida, *La transformación de la identidad local en la arquitectura de la comarca de la Sagra Baja toledana*, 2019, Biblioteca de la Escuela Técnica Superior de Arquitectura de la Universidad Politécnica de Madrid. Soon available on <http://oa.upm.es>
- 207 Graham Brown and Robert Gifford, 'Architects Predict Lay Evaluations of Large Contemporary Buildings: Whose Conceptual Properties?', *Journal of Environmental Psychology*, 2001, 21, 93-99
- 208 Phil Hubbard, 'Conflicting Interpretations of Architecture: An Empirical Investigation', *Journal of Environmental Psychology*, 1995, 16, 75-92

- 209 Ebru Erdogan, Aysu Akalin, Kemal Yildirim, H. Abdulla Erdogan, 'Students' Evaluation of Different Architectural Styles', *Procedia Social and Behavioural Sciences*, 5, (2010), 875-881
- 210 Mohammed Ghomeshi, Mansour Nikpour, Mahmud Mohd Jusan, 'Evaluation of Conceptual Properties by Layperson in Residential Façade Design', *Arts and Design Studies*, International Institute for Science, Technology and Education, Vol 3, 2012, 13-17
- 211 10 Most Liked Hong Kong Architecture of the Century, 2015, Hong Kong Architecture Centre, <http://10mostlikedarchitecture.hk/10.php>

## AFTERWORD

We are born and we die and whatever we encounter will have come into existence and will perish, in its own time. The time of the journey from creation to oblivion is fundamental to all that we think and all that we do. This constant presence of time is a thread that unifies all things and all actions and has been the subject of this book.

Architects and urban designers define themselves as one of the makers of new places designed for a future that must be imagined. There is no background from which that imagination can arise but the past, and in that future these places will unavoidably change and decay and finally perish. This book has sought out the constant theme of time to hold together many of the ideas and principles that guide and inspire architects and urban designers. It is hoped that those who have taken this journey with me will understand the central significance of time for these ideas and how, as an analytical foundation, it can be effective to illuminate and evaluate them.

The act of design is creative, inspired and often passionate but always takes place in the context of the outlook of the designer, the society with which the designer identifies, and for the society that will experience the design. The ideas that are brought to this creative process are at times barely articulated and hard to identify with any certainty in the designs themselves. They exist nonetheless and they are often the only accessible route to the intentions of the designer. Greater clarity brought to these concepts can help

to refine the aspirations of designers and bring them into a closer relationship with the society they are bound to serve.

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The discussions in this book are intended to serve this purpose. At first sight, the core conclusions are quite simple.

- All things exist in time.
- We only experience the present moment and the future is an anticipation calculated from the past.
- The passing of time is the sensation of change and changes take place at different rates.
- To be modern concerns the present and modernity can be presented across several different attitudes to contemporary life.
- We are all connected by our particular perceptions of the past and identify ourselves through the groups with whom we share these perceptions.

As every positive statement carries with it the denial of its opposite, the effect of these elementary ideas can be far-reaching as they are extrapolated into the world of action.

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If we acknowledge that all things exist in time, without recourse to the spiritual or symbolic, we cannot claim that anything is outside time or timeless. If we wish to engage in mysteries this is a legitimate position to take. It should, however, be recognised as such and the mysteries will remain inscrutable, opaque and of no real transferable value.

There is remarkable science on how time functions in the universe and the smallest components of physical

existence but, in architecture and urban design, we deal with the routine human experience of the physical world. We experience this world in time and this is not precise, as it passes we remember our encounters but we do so according to what matters to us. All these selected experiences are bundled up and we take them to whatever new thing we come across. This is what gives us our unique perception of the world and is why what we see in the present is always made up of what we want to remember from the past. It is only from this residue of memory and experience that we can use our imaginations, as we must do, to think into the future. New things can surprise and even shock us, but they quickly become just another recollection and pass into the reservoir of memories. Any value or function in newness is ephemeral.

We would not know that time had passed unless something changed. Each thing changes at its own pace and, as change and time are inextricably linked, it can be said that time itself moves at different speeds. As change is inevitable, everything is becoming new in its own way and nothing is in the past. Newness cannot be an objective in itself, only relative and unavoidable.

Some variable speeds of time have a particular effect on architecture and urban design. Social change and attitudes tend to move slowly, whereas technology can – and at the moment does – move very quickly. Technology only exists to serve society and so designers need to understand that new inventions and innovations have no benefit in themselves and may have to be moderated for the social conditions of the relevant community.

Quite specifically, different aspects of the built environment move at different paces. Some components of towns and



cities have a tendency to last longer than others. Certain parts of buildings change more quickly than others. Urban designs need to recognise the relative importance of the longer-lasting as against the more short-lived elements, so that when the unavoidable change takes place, it does so without undue difficulty. As the construction of buildings is a major carbon generator, designing buildings that can last as long as possible is a significant contribution to the sustainability of the environment; recognising this is important as it has no accepted comparative measurement and so is often overlooked.

Our current attitude to time is frequently expressed as the desire to be modern. In design it is often simply put forward as an objective. At the very least, to be modern concerns the state of existence in the present and specifically not the past. It can also signal an attitude to the future. For such an important and commonly used adjective, it is remarkable that it is hardly ever qualified; it has a history and can have many different meanings and outcomes, such that it can be a cause of fundamental misunderstandings. Its meaning can move from just what is happening now, by way of what is exclusive to the present era, to the future itself. Positive and negative attitudes to modernity are driven by how changes are perceived and the idea of cultural modernity can become a tool of suppression and social disruption.

As we can only live in the present moment, we can only understand time through memory. Memory is all we have and, as experience is so complex and inexhaustible, it has to be accompanied by forgetting. What we remember and forget is discretionary, it can be political and it is how we create history to suit our purposes. This can have real physical consequences. Memorial structures, building

preservation, and the neglect and destruction of places are all means of controlling our cultural memories and those of others. We have an idea that our memories and the means by which we try to preserve them can be authentic or inauthentic, but memories are neither precise nor can they be described as objectively factual.

Sharing memories is one of the most important ways that communities cohere and the way in which individual memories are formed can be structured by the conventions of the group. These collective memories, together with characteristic behaviour and actions, constitute and define the unique culture of every community. There are many communities, large and small, and most of us belong to several. Undertaking established and distinctive activities particular to a group is to practice the traditions which reinforce the culture, maintain the identity and confirm the sense of belonging for the members of the community. These practices are created and evolve, and in this way continue to be relevant. The design of buildings and places, their use and appearance are amongst these distinctive activities. To relate to the society for which architecture and urban design exists, designs should respond unambiguously to the traditions of that community.

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This is the briefest summary of the conclusions in this book. Those who have read the full explanations will know that each argument had many excursions and there are many more detailed consequences and associated issues that follow. There will be those who disagree with some aspects of the corroboration and some with the fundamental points. At the very least, however, I hope that new conclusions have been brought forward and that

clarity has been brought to some of the core objectives of architects and designers. Too often, debate on motives and objectives in design resorts to slogans and group-think. The best I can hope for is that when these issues are discussed in the future what I have written will have to be taken into account, even if simply to be challenged.

Robert Adam, Winchester, England.  
November 2019

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